

Grocery Delivery Database

Phase III – Implementation and Testing

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1 Environment and Requirement Analysis

1.1 Project Description

This project, an online grocery ordering and delivery service, is meant to teach CMSC424 students to analyze project requirements in order to successfully design, implement, document, and demonstrate a database system, in our case, based on the web programming language PHP with an MySQL database backend. The web interface will support purchasing groceries from a nearby store, and then dispatch a delivery driver with the purchased merchandise to the customer's address. Customers will be able to prepare a shopping basket of items, and will specify a "delivery window" during which they will be home to receive the goods.

1.2 Phase I Purpose

Phase I of the project involves determining the environment and requirements, as well as analyzing and specifying the details of the system. Here, we will investigate the information needs of and the activities within the grocery delivery enterprise and determine the boundary of our design problem. We will also divide the functions from the Top-Level Information Flow Diagram into reasonably independent tasks until each task is small enough to be clearly understood, and until the documents used by each task can be conveniently expressed in terms of data elements that cannot be divided any further.

1.3 Phase II Purpose

Phase II of the project involves designing a conceptual schema (E-R data model), along with a logical data model (Relational Schema) of the database. We will also obtain the design and specification of the software, which includes creating pseudocode of each task. This is done at the same time as the design of the database schema to catch most of the errors before the implementation of the program.

1.4 Phase III Purpose

Phase III of the project involves the implementation and testing of the application. In this phase, the conceptual schema and task design specifications are transformed into actual schema definitions (DDL) and application program modules (program code). After the database is created, sample data is entered into the system for later testing. After program coding is completed, through testing is done using the sample data to ensure the application is working as desired. This testing is documented in testing efforts, and should include erroneous cases and how the system detects and handles these cases appropriately. A user manual is then created to describe how to use the system appropriately. Finally the system is analyzed for any limitations and possibilities for improvements are created to address these limitation.

1.4 Assumptions

- Parts of New Customer Setup/Customer Data Update are assumed to be handled offline (ie credit check, username and password creation, etc).
- Actual billing of credit cards & checks is outside of the scope of this project and are assumed to be valid and approved by the banking company. Cash, as an impractical payment method, is not allowed.
- For the purpose of the project, the Developers are also the Administrative Staff
- Actions handled outside of the scope of the project (such as delivery people printing and then returning with and filing bills and dispatch tickets) are assumed to be completed.
- Routes are based on distances from the warehouse (\$5 for ≤ 3 mile radius, \$7 for > 3 and ≤ 5 mile radius, \$10 for > 5 miles).
- Employees other than drivers will be handled in another application.
- Vehicles are assigned a Vehicle Number and are managed in another application.
- Delivery times will be estimated by Google Maps, and will not take into account any traffic, accidents, weather, etc.
- Costs of products are assumed to not change (other than sales) for simplicity.
- The adding and changing of products is assumed to be handled offline by developers.
- Maryland has a 6% sales tax on all candy, soda, and prepared foods (salad bar, headed foods, deli products, etc).
- Dispatch Tickets and Bills are printed automatically at the warehouse upon order, and are collected in batch to dispatch drivers at the beginning of a time range.
- Delivery drivers write the Date & Time dispatched, arrived, and returned on the Dispatch Ticket, and turn the ticket in when they return. At a later time, an Administrator will enter this information, plus date & time and amount paid into the system in the Administrative Options section.
- Any credit back from customer comments is handled manually on a case by case basis outside of the system.
- In production, "background tasks" would be run automatically, but for simplicity a script to check for tasks to run will be run on demand by Administrators.

1.5 Technical/Conceptual Problems and Solutions

1.5.1 Technical Problems

Problem: No easy way to gather product data to populate the database in the future.

Solution: Plan a custom script to scrape data off of Safeway's site and populate DB.

Problem: Needed a way to map customer addresses and get distance from warehouse.

Solution: Implemented the Google Maps API.

Problem: Needed a way to estimate delivery times

Solution: Implemented a Traveling Salesman Problem solver for Google Maps that maps each currently pending order for the same date, time range, and driver, and then gives the upper bound of the estimated time that the driver would arrive back at the warehouse after visiting each customer.

Problem: Needed a way to run recurring tasks on a schedule.

Solution: Created a "background tasks" feature that queried the database for scheduled tasks to run given the days/times/frequencies/etc. This script is assumed to be run every minute by a process on the server in order to automate the procedure.

1.5.2 Conceptual Problems

Problem: Not enough details known on the workings of a grocery delivery service.

Solution: Research various existing services to thoroughly understand the requirements.

Problem: Design was overly complicated and impossible to model given constraints.

Solution: Created additional assumptions to simplify design.

Problem: Delinquent customers need to be deactivated after a certain period of time, but still need to be able to access the site in order to view their balance.

Solution: Create a field in the database "Active" which, when set to false, will disallow a customer from placing an order, but will still allow them to login to the site.

2 System Analysis and Specification

2.1 Procedures

The grocery delivery system will provide a web interface that allows a customer to browse products, select products to purchase, and create orders. The system will process the order to dispatch a driver to the designated location.

2.1.1 User Procedures

The user will visit the main web page of the grocery system. From there, he can utilize the web interface to create orders or initiate queries based on prior transactions. The queries will be formulated into MySQL commands in order to communicate with the MySQL backend database. The results from the MySQL queries will then be formatted appropriately for display to the user in the web browser.

2.1.2 Administrator Procedures

The administrators will first find the source of product information from preexisting grocery websites to be used as the basis for the inventory in the new system. The administrators will also need to develop an inventory management system to ensure that products are kept in stock at reasonable quantities. They will also be responsible for hiring a sufficient number of drivers to handle the deliveries processed through the website.

2.1.3 Developer Procedures

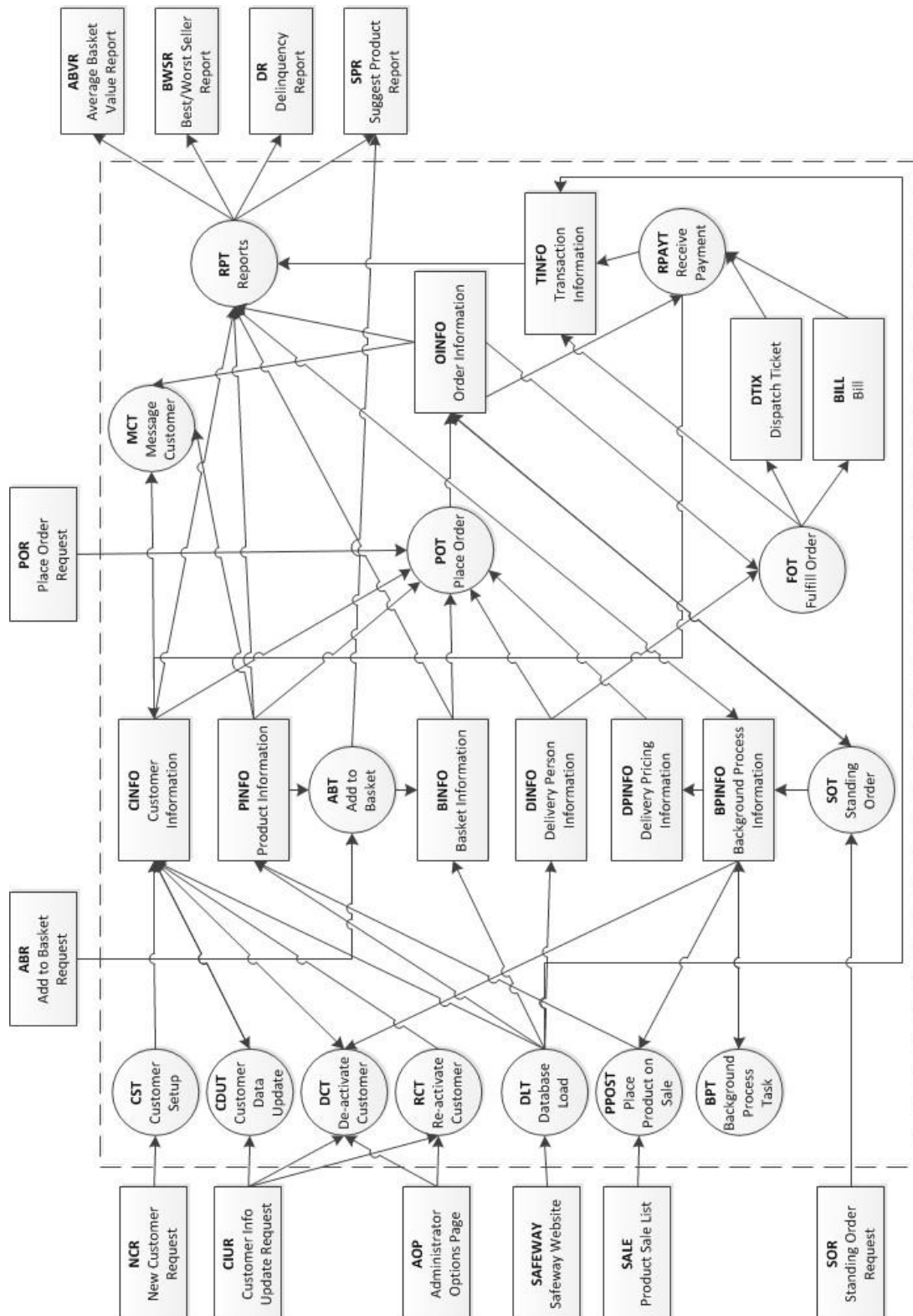
The developer will need to consider the interactions of multiple components when creating the system. The data will be stored on a MySQL server, where the developer will need to implement an efficient structure to manage the data. The MySQL server will interface with the web server upon client-initiated requests. The data flow will be bidirectional, as queries are processed on the MySQL server and then returned to the web server for formatting.

2.1.1 Server Procedures

The Apache web server will run PHP in order to facilitate communication with the MySQL server. The main page will provide an opportunity for either the user or an administrator to log in. If a user logs in, the server will display a page providing the options available, such as placing a new order or initiating queries based on prior orders. Selecting a query will result in backend processing by the server to format the request for data from the MySQL database. It will then receive the response and format it appropriately for display to the user. In the case that an administrator logs in instead of a customer, a different set of queries and reports will be available, but they will be processed in the same way.

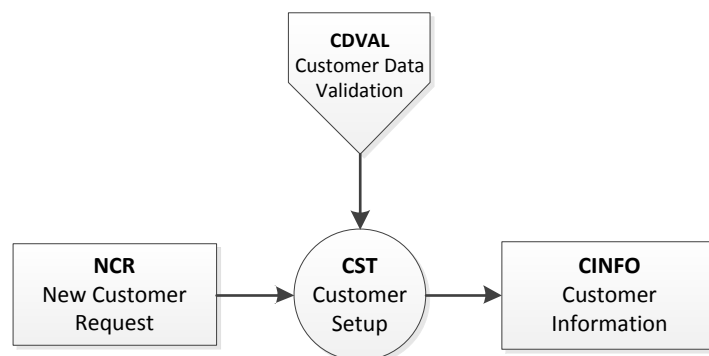
2.2 Documentation

2.2.1 Top-Level Information Flow Diagram

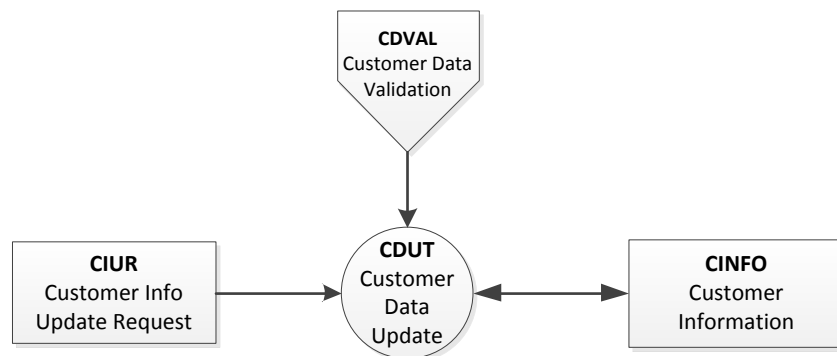


2.2.2 Tasks, Subtasks, and Task Flow Diagrams

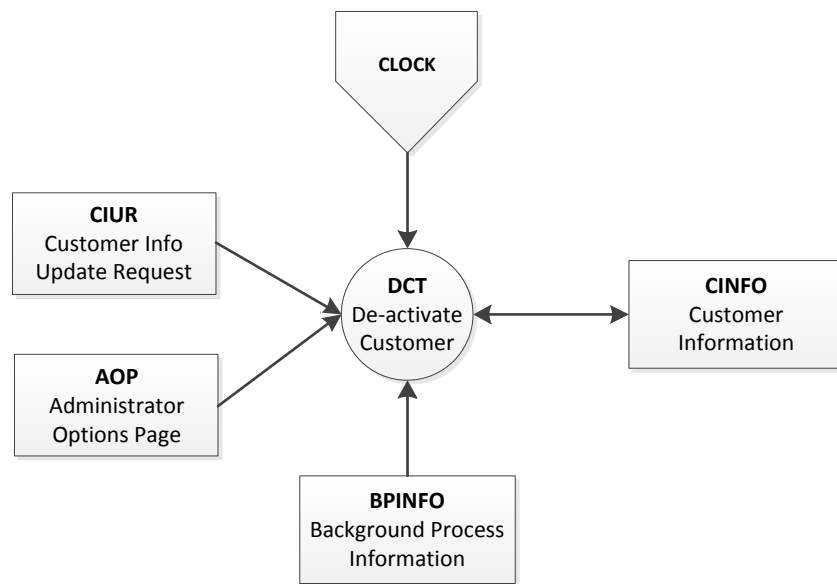
TASK NUMBER: CST
TASK NAME: Customer Setup
PERFORMER: New Customer
PURPOSE: Allows the setup of a new customer after receiving customer data
ENABLING COND: New Customer Request (NCR) has been received
DESCRIPTION: Receives incoming data from a New Customer Request (NCR) and analyzes for credit record, delivery address (to be assigned to a route) and computes distance, then enters customer data into the Customer Information (CINFO) structure
FREQUENCY: Once per new customer
DURATION: Short
IMPORTANCE: High
MAXIMUM DELAY: 1 minute
INPUT: New Customer Request (NCR)
OUTPUT: Customer Information (CINFO)
DOCUMENT USE: CIF: Customer Information Form
OPS PERFORMED: 1) Analyze data: credit record (offline), assign delivery address to route, compute distance
2) Inset data into Customer Information (CINFO)
SUBTASKS: None
ERROR COND: If fields are missing, customer address is outside of delivery range, or if customer credit record returns unfavorable, return error



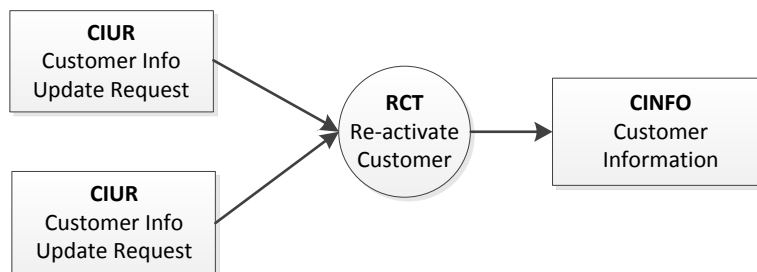
TASK NUMBER: CDUT
TASK NAME: Customer Data Update
PERFORMER: Customer
PURPOSE: To allow customer to update profile data
ENABLING COND: Customer exists in Customer Information (CINFO)
DESCRIPTION: Allows customers to update any profile information, including address, credit card, etc. May result in need to recalculate distance or recheck credit record.
FREQUENCY: Infrequently
DURATION: Short
IMPORTANCE: High
MAXIMUM DELAY: 1 minute
INPUT: Customer Info Update Request (CIUR); Customer Information (CINFO)
OUTPUT: Customer Information (CINFO)
DOCUMENT USE: CIF: Customer Information Form
OPS PERFORMED: 1) Update information in Customer Information (CINFO) with new data
2) If needed, rerun recalculate distance or recheck credit record
SUBTASKS: None
ERROR COND: If fields are missing, customer address is outside of delivery range, or if customer credit record returns unfavorable, return error



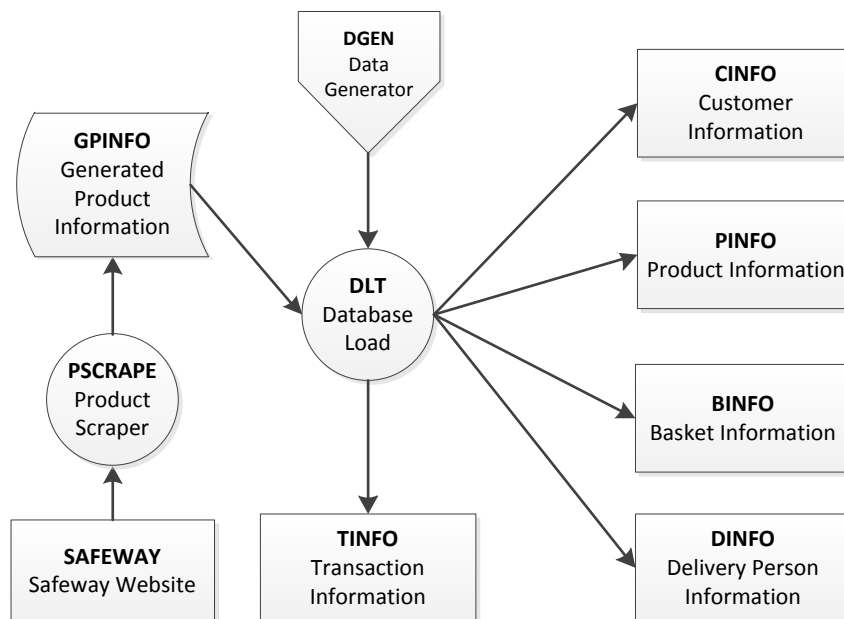
TASK NUMBER: DCT
TASK NAME: De-activate Customer
PERFORMER: Customer, Administrative Staff, or System
PURPOSE: De-activate customer record (but not delete) from system
ENABLING COND: Customer exists in Customer Information (CINFO); Customer is not already de-activated
DESCRIPTION: Marks a customer as inactive in the database, either by Administrative action (if the customer is delinquent for some period of time) or customer decision
FREQUENCY: Infrequently
DURATION: Short
IMPORTANCE: Low
MAXIMUM DELAY: 1 day
INPUT: Customer Info Update Request (CIUR) or Administrator Options Page (AOP)
OUTPUT: Customer Information (CINFO)
DOCUMENT USE: CSF: Customer Status Form
OPS PERFORMED: Update Customer Information to set ACTIVE = FALSE
SUBTASKS: None
ERROR COND: If customer is already de-activated, return error



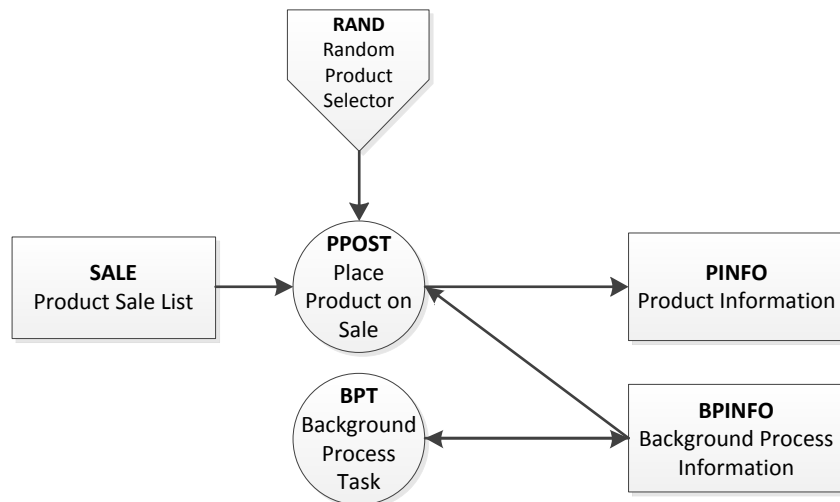
TASK NUMBER: RCT
TASK NAME: Re-activate Customer
PERFORMER: Administrative Staff
PURPOSE: Re-activate customer record in system
ENABLING COND: Customer exists in Customer Information (CINFO); Customer is not currently activated
DESCRIPTION: Marks a customer as active in the database
FREQUENCY: Infrequently
DURATION: Short
IMPORTANCE: Low
MAXIMUM DELAY: 1 minute
INPUT: Administrator Options Page (AOP)
OUTPUT: Customer Information (CINFO)
DOCUMENT USE: CSF: Customer Status Form
OPS PERFORMED: Update Customer Information to set ACTIVE = TRUE
SUBTASKS: None
ERROR COND: If customer is not de-activated, return error



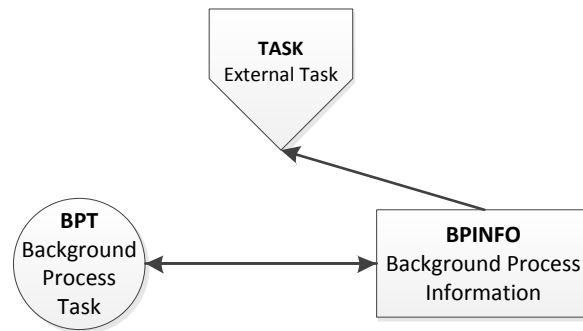
TASK NUMBER: DLT
TASK NAME: Database Load
PERFORMER: Database Administrator
PURPOSE: Populate the database
ENABLING COND: The database has been created
DESCRIPTION: Populates the database with products, customers, delivery drivers, and randomly generated baskets and transactions
FREQUENCY: Once
DURATION: Medium
IMPORTANCE: Very high
MAXIMUM DELAY: N/A
INPUT: Safeway Website data (SAFEWAY)
OUTPUT: Product Information (PINFO); Customer Information (CINFO); Basket Information (BINFO); Delivery Person Information (DINFO); Transaction Information (TINFO)
DOCUMENT USE: DLF: Database Load Form
OPS PERFORMED: 1) Generate and execute Product, Customer, and Delivery Driver insert queries
 2) Generate and execute insert queries of baskets using a random number generator to generate M baskets with anything between 1-N number of items per basket, spread over the different times of the day with a binormal distribution on time with peaks around noon and 6 pm
SUBTASKS: None
ERROR COND: None



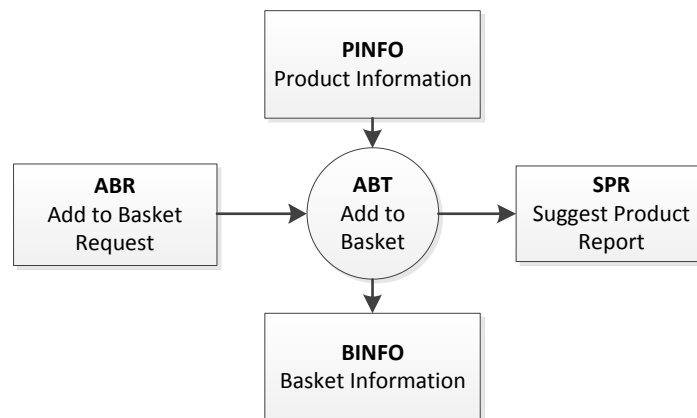
TASK NUMBER: PPOST
TASK NAME: Place/Unplace Product on Sale
PERFORMER: System
PURPOSE: Places an item on sale and notifies customers/removes a sale price from an item
ENABLING COND: Products exist in Product Information (PINFO); It is time for a task in Background Process Information (BPINFO) to run (specifically this PPOST task)
DESCRIPTION: Weekly process that inputs a list of products to put on sale, updates the price in Product Information (PINFO) and sends out a message to customers who have purchased the items in the past, or removes a sale price from a product.
FREQUENCY: Weekly
DURATION: Short
IMPORTANCE: Medium
MAXIMUM DELAY: 12 hours
INPUT: Product Sale List (SALE); Background Process Information (BPINFO)
OUTPUT: Product Information (PINFO)
DOCUMENT USE: PSF: Product Sale Form
OPS PERFORMED: 1) Generate and execute Product update query to reflect sale price
2) Run Message Customer (MCT) to alert customers of sale price
SUBTASKS: Message Customer (MCT)
ERROR COND: If product appears in Product Sale List (SALE) but not in Product Information (PINFO) return error (for this product); If Message Customer (MCT) returns an error, return same error.



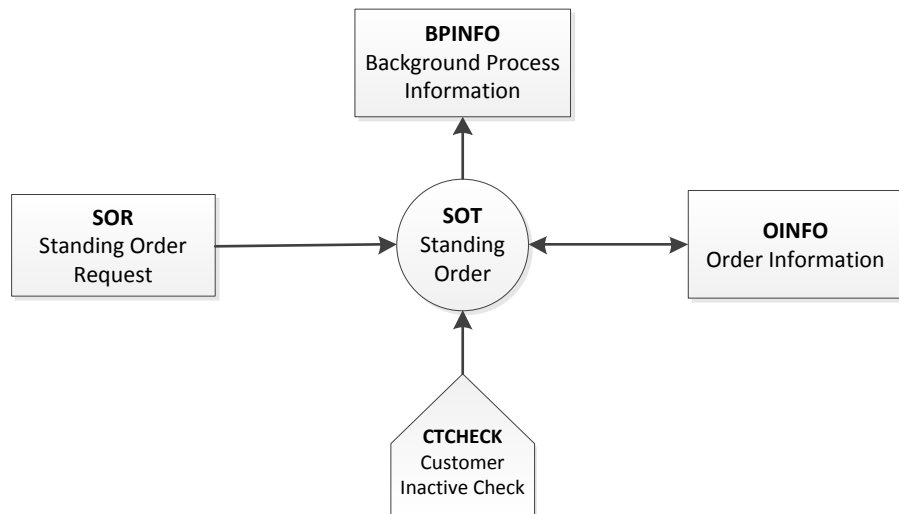
TASK NUMBER: BPT
TASK NAME: Background Process Task
PERFORMER: System
PURPOSE: Execute a background process subtask at a designated date/time
ENABLING COND: See subtask
DESCRIPTION: General task used to determine when to run, and to actually run, a subtask designated in Background Process Information (BPINFO)
FREQUENCY: See subtask
DURATION: See subtask
IMPORTANCE: See subtask
MAXIMUM DELAY: See subtask
INPUT: Background Process Information (BPINFO); See subtask
OUTPUT: Background Process Information (BPINFO); See subtask
DOCUMENT USE: [internal]
OPS PERFORMED: 1) Start designated subtask
 2) See subtask
SUBTASKS: Place Product on Sale (PPOST); Place Order (POT); Generate Delinquency Report (RPT.3)
ERROR COND: See subtasks



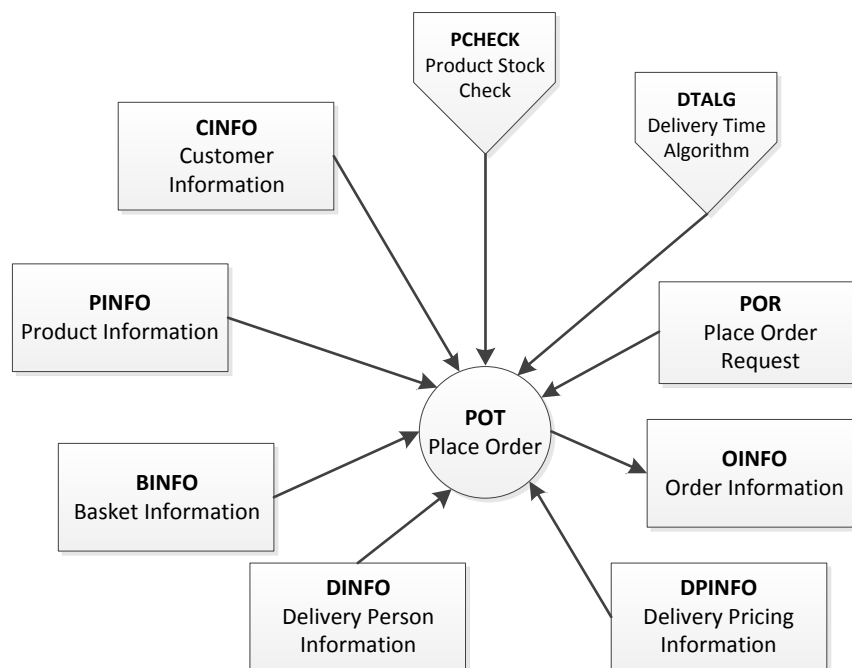
TASK NUMBER: ABT
TASK NAME: Add to Basket
PERFORMER: Customer
PURPOSE: Adds a product to a customer's basket (creating basket if necessary)
ENABLING COND: Customer exist in Customer Information (CINFO); Products exist in Product Information (PINFO);
DESCRIPTION: Adds a product selected by the Customer into his/her basket
FREQUENCY: Frequently
DURATION: Short
IMPORTANCE: High
MAXIMUM DELAY: 10 seconds
INPUT: Add to Basket Request (ABR); Product Information (PINFO)
OUTPUT: Basket Information (BINFO)
DOCUMENT USE: APBF: Add Product to Basket Form
OPS PERFORMED: Generate and execute insert query to add product to customer basket
SUBTASKS: None
ERROR COND: If customer or product does not exist, return error.



TASK NUMBER: SOT
TASK NAME: Standing Order
PERFORMER: Customer
PURPOSE: Starts or stops a Standing Order
ENABLING COND: Order exists in Order Information (OINFO)
DESCRIPTION: Allows a customer to designate (or deactivate) a “standing order” that occurs on set delivery times
FREQUENCY: Varies
DURATION: Short
IMPORTANCE: High
MAXIMUM DELAY: 1 minute
INPUT: Standing Order Request (SOR); Order Information (OINFO)
OUTPUT: Background Process Information (BPINFO); Order Information (OINFO)
DOCUMENT USE: SORF: Standing Order Request Form
OPS PERFORMED: Enable or disable Standing Order in Background Process Information (BPINFO)
SUBTASKS: None
ERROR COND: If order does not exist in Order Information (OINFO) return error.



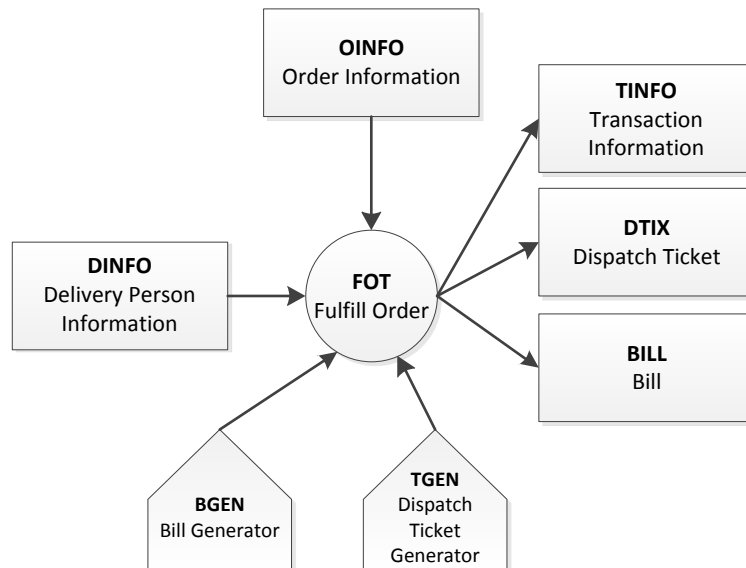
TASK NUMBER: POT
TASK NAME: Place Order
PERFORMER: Customer/System
PURPOSE: Allows a customer to place an order
ENABLING COND: Customer exist in Customer Information (CINFO); Products exist in Product Information (PINFO); Basket is present in Basket Information (BINFO); Delivery Person is available in Delivery Person Information (DINFO); The customers address exists in Delivery Pricing Information (DPINFO);
DESCRIPTION: Customer supplies order, payment method, and delivery time, and the system calculates the availability of the products and an estimate for the delivery time. Can also be run by system acting on a Standing Order
FREQUENCY: Frequently
DURATION: Medium
IMPORTANCE: Very high
MAXIMUM DELAY: 1 minute
INPUT: Place Order Request (POR); Customer Information (CINFO); Product Information (PINFO); Basket Information (BINFO); Delivery Person Information (DINFO); Delivery Pricing Information (DPINFO);
OUTPUT: Order Information (OINFO)
DOCUMENT USE: POF: Place Order Form
OPS PERFORMED: 1) Check the availability of the products in the basket, return any errors
2) Calculate the total cost, including delivery fees
3) Estimate the earliest possible delivery time (from available delivery people)
4) If the order is accepted, activate the Fulfill Order subtask
SUBTASKS: Fulfill Order (FOT)
ERROR COND: If any of the enabling conditions are not met, return an error.



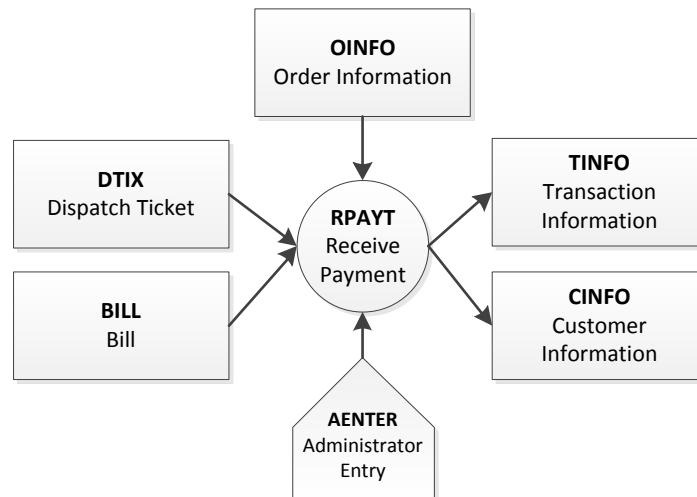
TASK NUMBER: FOT
TASK NAME: Fulfill Order
PERFORMER: System
PURPOSE: Fulfills a customer's order
ENABLING COND: Valid order exists in Order Information (OINFO)
DESCRIPTION: Accepts order and generates dispatch ticket and bill, records transaction information and dispatches delivery person.
FREQUENCY: Frequently
DURATION: Short
IMPORTANCE: Very high
MAXIMUM DELAY: 1 minute
INPUT: Order Information (OINFO); Delivery Person Information (DINFO)
OUTPUT: Transaction Information (TINFO); Dispatch Ticket (DTIX); Bill (BILL)
DOCUMENT USE: [internal]
OPS PERFORMED:

- 1) Generate a "dispatch ticket" and a "bill"
- 2) Determine who will deliver the order and when
- 3) Generate and execute insert statement for generated documents in Transaction Information (TINFO)

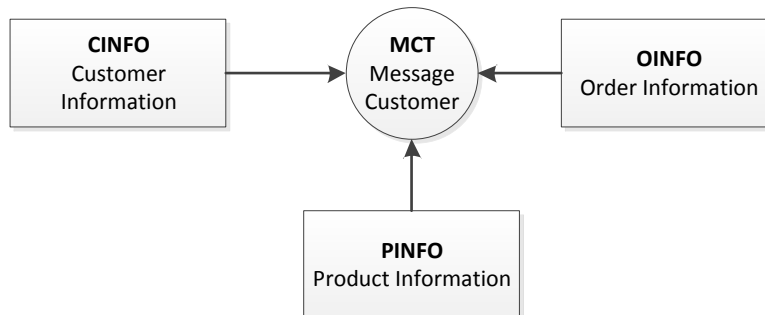
SUBTASKS: None
ERROR COND: If the order does not exist, return an error.



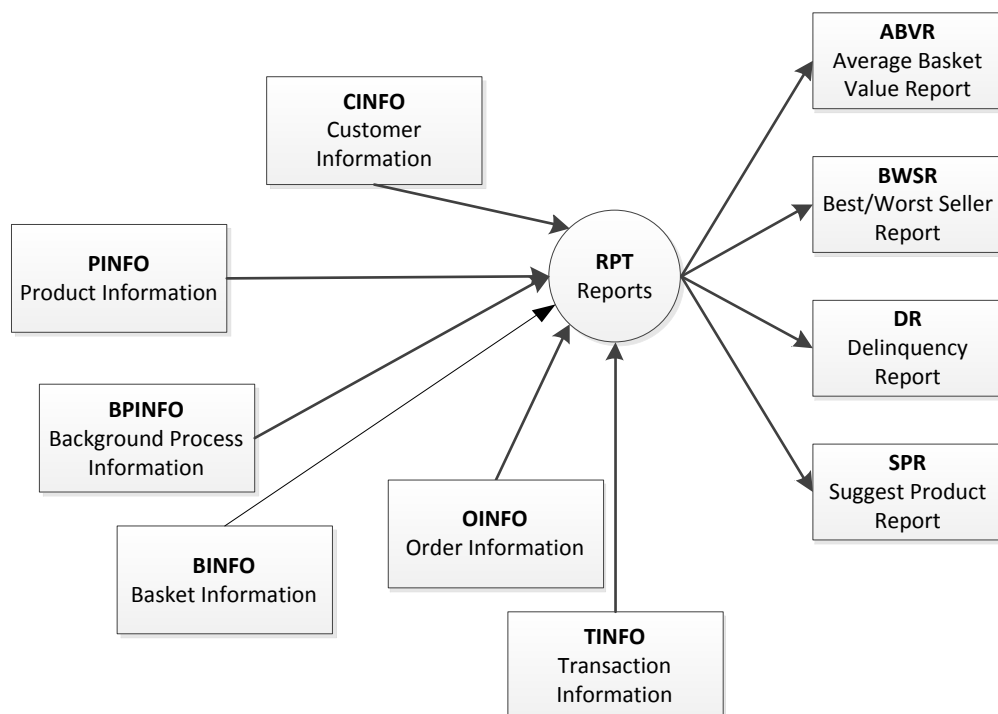
TASK NUMBER: RPAYT
TASK NAME: Receive Payment
PERFORMER: System
PURPOSE: Updates customer account balance & transaction log
ENABLING COND: Order exists in Order Information (OINFO)
DESCRIPTION: A payment is received from a customer and his/her account balance and the transaction log are updated accordingly. Also records and comments from customer on dispatch ticket.
FREQUENCY: Frequently
DURATION: Varies
IMPORTANCE: Very high
MAXIMUM DELAY: Varies
INPUT: Bill (BILL); Dispatch Ticket (DTIX); Order Information (OINFO)
OUTPUT: Transaction Information (TINFO)
DOCUMENT USE: [internal]
OPS PERFORMED: 1) Generate and execute update query on customers account balance
2) Generate and execute insert statement for transaction in Transaction Information (TINFO)
SUBTASKS: None
ERROR COND: If the order does not exist, refuse the payment and return an error.



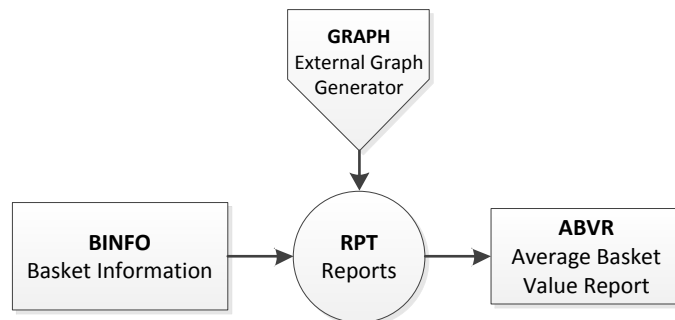
TASK NUMBER: MCT
TASK NAME: Message Customer
PERFORMER: System
PURPOSE: Send a message to a customer
ENABLING COND: The customer exists in Customer Information (CINFO)
DESCRIPTION: Sends a message to a customer (for a variety of reasons, including delinquency notice, sale notice, order placement, etc)
FREQUENCY: Frequently
DURATION: Short
IMPORTANCE: Medium
MAXIMUM DELAY: 1 minute
INPUT: Customer Information (CINFO); Optionally: Product Information (OINFO); Order Information (OINFO)
OUTPUT: A message to a customer
DOCUMENT USE: CMF: Customer Message Form
OPS PERFORMED: Send message parameter to customer parameter
SUBTASKS: None
ERROR COND: If message send fails, return error.



TASK NUMBER: RPT
TASK NAME: Reports
PERFORMER: System/Administrative Staff
PURPOSE: Generate a variety of system reports
ENABLING COND: Customers have been set up (CST); Database has been loaded (DLT); Background processes are running (BPT); Orders have been placed (POT); Orders have been fulfilled (FOT);
DESCRIPTION: Generates system reports on a variety of subjects, including Average Basket Values, Best/Worst Sellers, Delinquency Reports, and Suggested Products based on data recorded by the program and generated either on a schedule or on demand (see subtasks for more details)
FREQUENCY: See subtasks
DURATION: See subtasks
IMPORTANCE: See subtasks
MAXIMUM DELAY: See subtasks
INPUT: Customer Information (CINFO); Product Information (PINFO); Order Information (OINFO); Transaction Information (TINFO); Background Process Information (BPINFO)
OUTPUT: Average Basket Value Report (ABVR); Best/Worst Seller Report (BWSR); Delinquency Report (DR); Suggest Product Report (SPR)
DOCUMENT USE: RRF: Report Request Form
OPS PERFORMED: See subtasks
SUBTASKS: Generate Average Basket Value Report (RPT.1); Generate Best/Worst Seller Report (RPT.2); Generate Delinquency Report (RPT.3); Generate Suggest Product Report (RPT.4)
ERROR COND: See subtasks



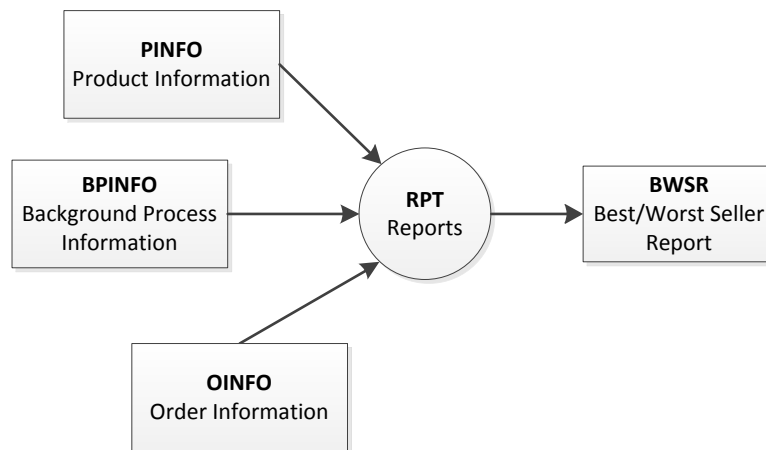
TASK NUMBER: RPT.1
TASK NAME: Generate Average Basket Value Report
PERFORMER: Administrative Staff
PURPOSE: Gather statistical information on average basket value
ENABLING COND: Customers have been set up (CST); Database has been loaded (DLT);
Background processes are running (BPT); Orders have been placed (POT);
DESCRIPTION: Generates a report on demand detailing the average basket value at a range of
times, from hours, to days, to weeks, and etc. This report will display each days
hourly average, or each weeks daily average, etc.
FREQUENCY: On demand by Administrative Staff
DURATION: Medium
IMPORTANCE: Very high
MAXIMUM DELAY: 1 minute
INPUT: Basket Information (BINFO)
OUTPUT: Average Basket Value Report (ABVR)
DOCUMENT USE: ABVRF: Average Basket Value Form
OPS PERFORMED: 1) Request time frame to report
2) Generate and execute query to average basket value for given time interval
3) Display results in report form, including graph of hourly/daily intervals
SUBTASKS: None
ERROR COND: If no baskets have been created, return error



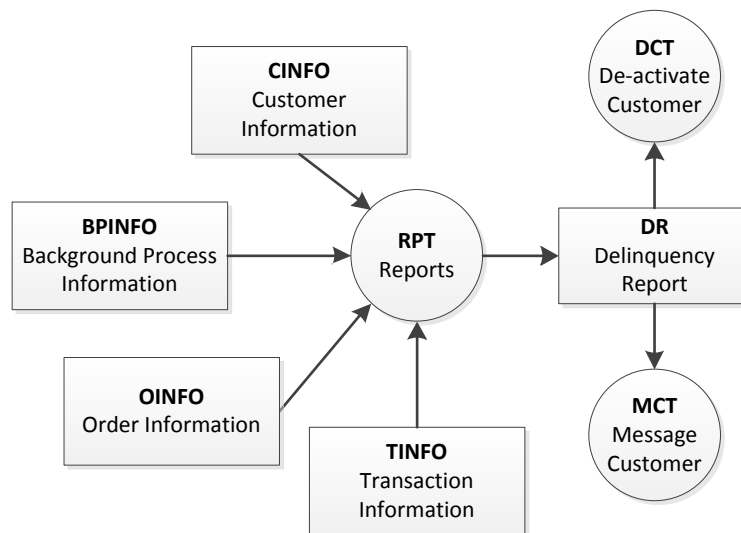
TASK NUMBER: RPT.2
TASK NAME: Generate Best/Worst Seller Report
PERFORMER: System/Administrative Staff
PURPOSE: Find the best and worst selling products
ENABLING COND: Customers have been set up (CST); Database has been loaded (DLT); Background processes are running (BPT); Orders have been placed (POT);
DESCRIPTION: Generates a weekly report to find the best and worse selling products (by category) to ensure stock, as well as suggest products to be put on sale or to be discontinued (and start subtask if instructed by Administrator)
FREQUENCY: Weekly, or on demand by Administrative Staff
DURATION: Medium
IMPORTANCE: High
MAXIMUM DELAY: 1 minute
INPUT: Product Information (PINFO); Order Information (OINFO); Background Process Information (BPINFO)
OUTPUT: Best/Worst Seller Report (BWSR)
DOCUMENT USE: BWSRF: Best/Worst Seller Report Form
OPS PERFORMED:

- 1) Request time frame to report / Use weekly time frame
- 2) Generate and execute query to average basket value for given time interval
- 3) Display results in report form, including graph of hourly/daily intervals
- 4) Suggest, and place items on sale (if approved by Administrator)

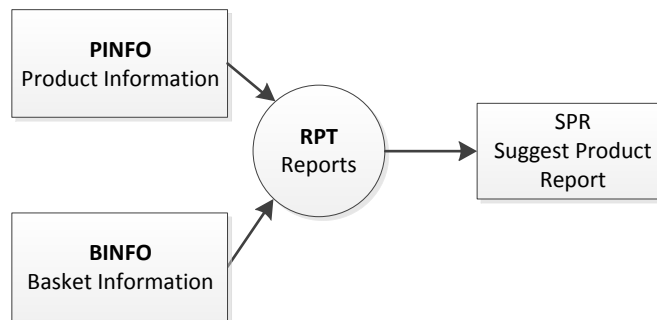
SUBTASKS: Place Product on Sale (PPOST)
ERROR COND: If no products have been ordered, return error



TASK NUMBER: RPT.3
TASK NAME: Generate Delinquency Report
PERFORMER: System
PURPOSE: Alert Customers of delinquency issues
ENABLING COND: Customers have been set up (CST); Database has been loaded (DLT); Background processes are running (BPT); Orders have been placed (POT); Orders have been fulfilled (FOT);
DESCRIPTION: Generates a report of customers with an outstanding balance that exceeds some maximum and who have not ordered any products more than some specified time, sends them a delinquency notice and de-activates them.
FREQUENCY: Daily
DURATION: Medium
IMPORTANCE: Very high
MAXIMUM DELAY: 1 minute
INPUT: Customer Information (CINFO); Order Information (OINFO); Transaction Information (TINFO); Background Process Information (BPINFO)
OUTPUT: Delinquency Report (DR)
DOCUMENT USE: DRF: Delinquency Report Form
OPS PERFORMED: 1) Generate and execute query to find all customers with an outstanding balance that exceeds some maximum and who have not ordered any products more than some specified time
2) Call MCT to send customer a delinquency notice
3) Call DCT to de-activate customer
SUBTASKS: Message Customer (MCT); De-activate Customer (DCT)
ERROR COND: If no orders have been placed, return error



TASK NUMBER: RPT.4
TASK NAME: Generate Suggest Product Report
PERFORMER: System
PURPOSE: Gather statistical information on average basket value
ENABLING COND: Customers have been set up (CST); Database has been loaded (DLT); Background processes are running (BPT); Orders have been placed (POT); Customer has transaction history.
DESCRIPTION: Generates a list of recommended products based on prior purchases.
FREQUENCY: Upon customer request.
DURATION: Short
IMPORTANCE: Medium
MAXIMUM DELAY: 1 minute
INPUT: Basket Information (BINFO); Product Information (PINFO)
OUTPUT: Suggest Product Report (SPR)
DOCUMENT USE: SPRF: Suggest Product Report Form
OPS PERFORMED: 1) Generate query to search Product Information (PINFO) for items similar to the item just added to the basket
2) Execute query and receive results
3) Display results on basket page and suggest Customer adds recommended products to basket as well
SUBTASKS: Add to Basket (ABT)
ERROR COND: None



2.2.3 Documents and Document Forms

POF: Place Order Form

CustomerNum
BasketID
DeliveryTime
PaymentInfo

CMF: Customer Message Form

CustomerNum
CustomerEmailResult
MessageContent

PRQ: Product Query

CustomerNum
Category
Manufacturer
PriceRange
LimitPriorPurchase
ProductResult
Barcode
Description
Price
OnSale
OnSaleResult

ORQ: Order Query

CustomerNum
Orders
OrderResult
DeliveryTime

CPWF: Customer Password Form

CustomerNum
CurrentPassword
NewPassword
PasswordConfirmation

BLQ: Balance Query

CustomerNum
Account
BalanceResult

CTHQ: Customer Transaction History Query

CustomerNum
TimeRange
TransactionResult

CSF: Customer Status Form

CustomerNum
ActiveStatus

CIF: Customer Information Form

Name
Address
RangeResult
Gender
Phone
Email
Password
CreditInfo

APBF: Add Product to Basket Form
CustomerNum
ProductNum
Quantity
BasketID

SORF: Standing Order Request Form
CustomerNum
ProductNums
Quantities
DeliveryTime
DeliveryFrequency

PSF: Product Sale Form
ProductID
SalePrice
SaleDuration

PSF: Product Sale Form
ProductID
SalePrice
SaleDuration

DLF: Database Load Form
RawData

RRF: Report Request Form
ReportID

ABVRF: Average Basket Value
Request Form (Report ID 1)
TimeRange
AvgBasketResult

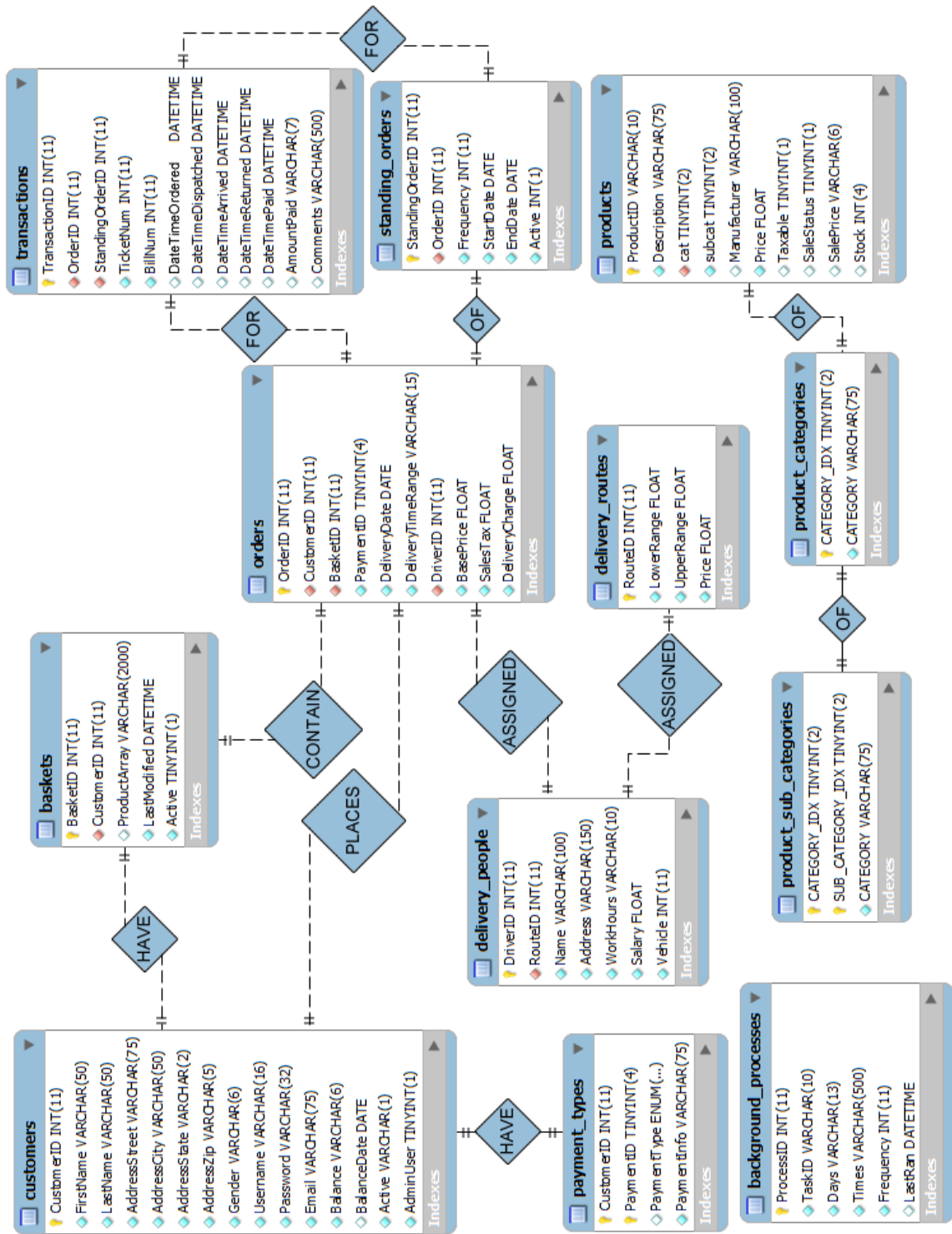
BWSRF: Best/Worst Seller
Report Form (Report ID 2)
ProductIDs
TimeRange
BestWorstProductList

DRF: Delinquency Report Form
(Report ID 3)
MaxBalance
MaxTimeFrame
CustomerResult

SRPF: Suggest Product Report
Form (Report ID 4)
CustomerID
TransactionHistory
RecProductResult

3 Conceptual Modeling

3.1 E-R Model Graphical Schema



4 Logical Modeling

4.1 Logical Schema

CUSTOMERS

<u>CustomerID</u>	FirstName	LastName	AddressStreet	AddressCity	AddressState	AddressZip	
Gender	Username	Password	Email	Balance	BalanceDate	Active	AdminUser

Note: The BalanceDate stores the last date that the Customer's account balance was updated.

PAYMENT_TYPES

<u>CustomerID</u>	<u>PaymentID</u>	PaymentType	PaymentInfo
-------------------	------------------	-------------	-------------

Note: The PaymentInfo stores a credit card number or a balance limit, depending on PaymentType.

PRODUCT_CATEGORIES

<u>Category_IDX</u>	Category
---------------------	----------

PRODUCT_SUB_CATEGORIES

<u>Category_IDX</u>	<u>Sub_Category_IDX</u>	Category
---------------------	-------------------------	----------

PRODUCTS

<u>ProductID</u>	Description	cat	subcat	Manufacturer	Price	Taxable	SaleStatus	SalePrice	Stock
------------------	-------------	-----	--------	--------------	-------	---------	------------	-----------	-------

BASKETS

<u>BasketID</u>	CustomerID	ProductArray	LastModified	Active
-----------------	------------	--------------	--------------	--------

Note: The ProductArray will be a comma separated list of ProductIDs parsed by the application.
Active will indicate whether the basket is a current or past order.

DELIVERY_PEOPLE

<u>DriverID</u>	RouteID	Name	Address	WorkHours	Salary	Vehicle
-----------------	---------	------	---------	-----------	--------	---------

Note: The Vehicle field is assumed to be a Vehicle Number managed by a separate application.

DELIVERY_ROUTES

<u>RouteID</u>	LowerRange	UpperRange	Price
----------------	------------	------------	-------

Note: Routes are assumed to be based on distance, ie a ≤ 1 mile radius, a >1 and ≤ 2 mile radius, etc.

ORDERS

<u>OrderID</u>	CustomerID	BasketID	PaymentID	DeliveryDate	DeliveryTimeRange	DriverID
BasePrice	SalesTax	DeliveryCharge				

STANDING_ORDERS

<u>StandingOrderID</u>	OrderID	Frequency	StartDate	EndDate	Active
------------------------	---------	-----------	-----------	---------	--------

TRANSACTIONS

<u>TransactionID</u>	OrderID	StandingOrderID	TicketNum	BillNum	DateTimeOrdered
DateDispatched	DateArrived	DateReturned	DatePaid	AmountPaid	
Comments					

BACKGROUND_PROCESSES

<u>ProcessID</u>	TaskID	Days	Times	Frequency	LastRan
------------------	--------	------	-------	-----------	---------

Note: TaskIDs will be identifiers of hard coded tasks, and will be used to decide which task to run.
Days will be an array of seven 0 or 1s, for true/false. Times will be an array of 24 hour times.
Frequency will be an amount of hours between runs.

4.2 Data Definition Language

CUSTOMERS

```
CREATE TABLE `CUSTOMERS` (  
  `CustomerID` int(11) NOT NULL auto_increment,1  
  `FirstName` varchar(50) NOT NULL,  
  `LastName` varchar(50) NOT NULL,  
  `AddressStreet` varchar(75) NOT NULL,  
  `AddressCity` varchar(50) NOT NULL,  
  `AddressState` varchar(2) NOT NULL,  
  `AddressZip` varchar(5) NOT NULL,  
  `Gender` varchar(6) NOT NULL,  
  `Username` varchar(16) NOT NULL,  
  `Password` varchar(32) NOT NULL,  
  `Email` varchar(75) NOT NULL,  
  `Balance` varchar(6) NOT NULL default '0',  
  `BalanceDate` date default NULL,  
  `Active` varchar(1) NOT NULL default 'Y',  
  `AdminUser` tinyint(1) NOT NULL default '0',  
  PRIMARY KEY (`CustomerID`),  
  UNIQUE KEY `Username` (`Username`)  
) ENGINE=InnoDB;
```

PAYMENT_TYPES

```
CREATE TABLE PAYMENT_TYPES (  
  CustomerID int(11) NOT NULL,2  
  PaymentID tinyint(4) NOT NULL,  
  PaymentType enum('Credit Card','Checking Account') default NULL,  
  PaymentInfo varchar(75) NOT NULL,  
  PRIMARY KEY (CustomerID,PaymentID),  
  CONSTRAINT `PAYMENT_TYPES_ibfk_1` FOREIGN KEY (`CustomerID`) REFERENCES  
    `CUSTOMERS` (`CustomerID`)  
) ENGINE=InnoDB;
```

¹ The CustomerID is a common foreign key to many relations

² CustomerID is a foreign key to the CUSTOMERS table used in the CUSTOMER HAVE PAYMENT TYPES relation

PRODUCT_CATEGORIES

```
CREATE TABLE PRODUCT_CATEGORIES (  
  CATEGORY_IDX tinyint(2) NOT NULL,  
  CATEGORY varchar(75) NOT NULL,  
  PRIMARY KEY (CATEGORY_IDX)  
) ENGINE=InnoDB;
```

PRODUCT_SUB_CATEGORIES

```
CREATE TABLE PRODUCT_SUB_CATEGORIES (  
  CATEGORY_IDX tinyint(2) NOT NULL,3  
  SUB_CATEGORY_IDX tinyint(2) NOT NULL,  
  CATEGORY varchar(75) NOT NULL,  
  PRIMARY KEY (CATEGORY_IDX, SUB_CATEGORY_IDX),  
  CONSTRAINT PRODUCT_SUB_CATEGORIES_ibfk_1 FOREIGN KEY (CATEGORY_IDX)  
    REFERENCES PRODUCT_CATEGORIES (CATEGORY_IDX)  
) ENGINE=InnoDB;
```

PRODUCTS

```
CREATE TABLE PRODUCTS (  
  ProductID varchar(10) NOT NULL,  
  Description varchar(75) NOT NULL,  
  cat tinyint(2) NOT NULL,4  
  subcat tinyint(2) NOT NULL,5  
  Manufacturer varchar(100) default NULL,  
  Price float NOT NULL,  
  Taxable tinyint(1) default NULL,  
  SaleStatus tinyint(1) default NULL,  
  SalePrice varchar(6) default NULL,  
  Stock int(4) default NULL,  
  PRIMARY KEY (ProductID),  
  KEY cat (cat),  
  KEY subcat (subcat),  
  CONSTRAINT PRODUCTS_ibfk_1 FOREIGN KEY (cat) REFERENCES PRODUCT_CATEGORIES  
    (CATEGORY_IDX)  
) ENGINE=InnoDB;
```

BASKETS

```
CREATE TABLE BASKETS (  
  BasketID int(11) NOT NULL auto_increment,  
  CustomerID int(11) NOT NULL,6  
  ProductArray varchar(2000) default NULL,  
  LastModified datetime NOT NULL,  
  Active tinyint(1) NOT NULL default '1',  
  PRIMARY KEY (BasketID),  
  KEY CustomerID (CustomerID),  
  CONSTRAINT BASKETS_ibfk_1 FOREIGN KEY (CustomerID) REFERENCES CUSTOMERS  
    (CustomerID)  
) ENGINE=InnoDB;
```

³ CATEGORY_IDX is a foreign key to the PRODUCT_CATEGORIES table used in the SUBCATEGORY OF CATEGORY relation

⁴ cat is a foreign key to the PRODUCT_CATEGORIES table used in the PRODUCT OF CATEGORY relation

⁵ subcat is a foreign key to the PRODUCT_CATEGORIES table used in the PRODUCT OF SUBCATEGORY relation

⁶ CustomerID is a foreign key to the CUSTOMERS table used in the CUSTOMERS HAVE BASKETS relation

DELIVERY_PEOPLE

```
CREATE TABLE DELIVERY_PEOPLE (  
  DriverID int(11) NOT NULL auto_increment,  
  RouteID int(11) NOT NULL,7  
  `Name` varchar(100) NOT NULL,  
  Address varchar(150) NOT NULL,  
  WorkHours varchar(10) NOT NULL,  
  Salary float NOT NULL,  
  Vehicle int(11) NOT NULL,  
  PRIMARY KEY (DriverID),  
  KEY RouteID (RouteID),  
  CONSTRAINT DELIVERY_PEOPLE_ibfk_1 FOREIGN KEY (RouteID) REFERENCES  
    DELIVERY_ROUTES (RouteID)  
) ENGINE=InnoDB;
```

DELIVERY_ROUTES

```
CREATE TABLE DELIVERY_ROUTES (  
  RouteID int(11) NOT NULL auto_increment,  
  LowerRange float NOT NULL,  
  UpperRange float NOT NULL,  
  Price float NOT NULL,  
  PRIMARY KEY (RouteID)  
) ENGINE=InnoDB;
```

ORDERS

```
CREATE TABLE ORDERS (  
  OrderID int(11) NOT NULL auto_increment,  
  CustomerID int(11) NOT NULL,8  
  BasketID int(11) NOT NULL,9  
  PaymentID tinyint(4) NOT NULL,10  
  DeliveryDate date NOT NULL,  
  DeliveryTimeRange varchar(15) NOT NULL,  
  DriverID int(11) NOT NULL,11  
  BasePrice float NOT NULL,  
  SalesTax float NOT NULL,  
  DeliveryCharge float NOT NULL,  
  PRIMARY KEY (OrderID),  
  KEY CustomerID (CustomerID),  
  KEY BasketID (BasketID),  
  KEY PaymentID (PaymentID),  
  KEY DriverID (DriverID),  
  CONSTRAINT ORDERS_ibfk_1 FOREIGN KEY (CustomerID) REFERENCES CUSTOMERS  
    (CustomerID),  
  CONSTRAINT ORDERS_ibfk_2 FOREIGN KEY (BasketID) REFERENCES BASKETS  
    (BasketID),  
  CONSTRAINT ORDERS_ibfk_3 FOREIGN KEY (DriverID) REFERENCES DELIVERY_PEOPLE  
    (DriverID)  
) ENGINE=InnoDB;
```

⁷ RouteID is a foreign key to the DELIVERY_ROUTES table used in the DELIVERY PERSON ASSIGNED A ROUTE relation

⁸ CustomerID is a foreign key to the CUSTOMERS table used in the CUSTOMER PLACES A ORDER relation

⁹ BasketID is a foreign key to the BASKETS table used in the ORDERS CONTAIN BASKETS relation

¹⁰ PaymentID is a foreign key to the PAYMENT_TYPES table used in the ORDERS PAID BY PAYMENT TYPE relation

¹¹ DriverID is a foreign key to the DELIVERY_PEOPLE table used in the ORDERS DELIVERED BY DELIVERY PEOPLE relation

STANDING_ORDERS

```
CREATE TABLE STANDING_ORDERS (  
    StandingOrderID int(11) NOT NULL auto_increment,  
    OrderID int(11) NOT NULL,12  
    Frequency int(11) NOT NULL,  
    StartDate date NOT NULL,  
    EndDate date NOT NULL,  
    Active int(1) NOT NULL default '1',  
    PRIMARY KEY (StandingOrderID),  
    UNIQUE KEY OrderID (OrderID),  
    CONSTRAINT STANDING_ORDERS_ibfk_1 FOREIGN KEY (OrderID) REFERENCES ORDERS  
        (OrderID)  
) ENGINE=InnoDB;
```

TRANSACTIONS

```
CREATE TABLE TRANSACTIONS (  
    TransactionID int(11) NOT NULL auto_increment,  
    OrderID int(11) NOT NULL,13  
    StandingOrderID int(11) default NULL,14  
    TicketNum int(11) NOT NULL,  
    BillNum int(11) NOT NULL,  
    DateTimeOrdered datetime default NULL,  
    DateTimeDispatched datetime default NULL,  
    DateTimeArrived datetime default NULL,  
    DateTimeReturned datetime default NULL,  
    DateTimePaid datetime default NULL,  
    AmountPaid varchar(7) default NULL,  
    Comments varchar(500) default NULL,  
    PRIMARY KEY (TransactionID),  
    UNIQUE KEY OrderID (OrderID),  
    UNIQUE KEY `TicketNum` (`TicketNum`),  
    UNIQUE KEY `BillNum` (`BillNum`),  
    KEY `StandingOrderID` (`StandingOrderID`),  
    CONSTRAINT TRANSACTIONS_ibfk_1 FOREIGN KEY (OrderID) REFERENCES ORDERS  
        (OrderID),  
    CONSTRAINT `TRANSACTIONS_ibfk_2` FOREIGN KEY (`StandingOrderID`) REFERENCES  
        `STANDING_ORDERS` (`StandingOrderID`)  
) ENGINE=InnoDB;
```

BACKGROUND_PROCESSES

```
CREATE TABLE BACKGROUND_PROCESSES (  
    ProcessID int(11) NOT NULL auto_increment,  
    TaskID varchar(10) NOT NULL,  
    Days varchar(13) NOT NULL default '0,0,0,0,0,0,0',  
    Times varchar(500) NOT NULL,  
    Frequency int(11) NOT NULL,  
    LastRan datetime default NULL,  
    PRIMARY KEY (ProcessID)  
) ENGINE=InnoDB;
```

¹² OrderID is a foreign key to the ORDERS table used in the STANDING ORDER OF ORDER relation

¹³ OrderID is a foreign key to the ORDERS table used in the TRANSACTION FOR ORDER relation

¹⁴ StandingOrderID is a foreign key to the STANDING_ORDERS table used in the TRANSACTION FOR STANDING ORDER relation

5 Task Emulation

5.1 Task Design Specification

Customer Setup

While no data/error in data

Prompt for customer data (First & Last Name, Address, Sex, Age, Email, Payment Info)

If data includes credit card number, then run credit check (offline)

Analyze address to compute distance and assign to delivery route

Run query "INSERT INTO CUSTOMERS (FirstName, LastName, Address, Sex, Age, Email, Active) VALUES (\$firstName, \$lastName, \$address, \$sex, \$age, \$email, 1)" to create new customer

Run query "INSERT INTO PAYMENT_TYPES (CustomerID, PaymentType, PaymentInfo) VALUES (\$customerID, \$paymentType, \$paymentInfo)" to create new customer's payment information

Customer Data Update

Run query "SELECT * FROM CUSTOMERS WHERE CustomerID = \$customerID" to get current customer information

While no data/error in data

Prompt for customer data (First & Last Name, Address, Sex, Age, Email, Payment Info)

If data includes a new credit card number, then run credit check (offline)

If address has changed, analyze new address to compute distance and assign to delivery route

Run query "UPDATE CUSTOMERS SET FirstName = \$firstName, LastName = \$lastName, Address = \$address, Sex = \$sex, Age = \$age, Email = \$email WHERE CustomerID = \$customerID" to update customer information

Run query "UPDATE PAYMENT_TYPES SET PaymentType = \$paymentType, PaymentInfo = \$paymentInfo WHERE CustomerID = \$customerID" to update current customer's payment information OR run query "INSERT INTO PAYMENT_TYPES (CustomerID, PaymentType, PaymentInfo) VALUES (\$customerID, \$paymentType, \$paymentInfo)" to create new customer's payment information

De-activate Customer

Run query "UPDATE CUSTOMERS SET Active = 0 WHERE CustomerID = \$customerID" to de-activate customer

Re-activate Customer

Run query "UPDATE CUSTOMERS SET Active = 1 WHERE CustomerID = \$customerID" to re-activate customer

Database Load

Parse input HTML from Safeway to create array of product information

For each product in array

Run query "INSERT INTO PRODUCTS (Description, Category, Manufacturer, Supplier, Price, Taxable, SaleStatus, SalePrice, Barcode, Stock) VALUES (\$description, \$category, \$manufacturer, \$supplier, \$price, \$taxable, 0, NULL, \$barcode, \$stock)" to create new product

For each randomly generated customer

Run query "INSERT INTO CUSTOMERS (FirstName, LastName, Address, Sex, Age, Email, Active) VALUES (\$firstName, \$lastName, \$address, \$sex, \$age, \$email, 1)" to create new random customer

Run query "INSERT INTO PAYMENT_TYPES (CustomerID, PaymentType, PaymentInfo) VALUES (\$customerID, \$paymentType, \$paymentInfo)" to create new random customer's payment information

For each randomly generated delivery driver

Run query "INSERT INTO DELIVERY_PEOPLE (RouteID, Name, Address, WorkHours, Salary, Vehicle, CostPerMile) VALUES (\$routeID, \$name, \$address, \$workHours, \$salary, \$vehicleNumber, \$costPerMile)" to create new random delivery driver

\$N = rand()

\$M = rand()

For \$i=0 to \$M do

\$productArray = array()

For \$j=0 to \$N do

\$productArray += random Product ID

Run query "INSERT INTO BASKETS (CustomerID, ProductArray, LastModified) VALUES (\$randomCustomerID, \$productArray, \$randomDateTime)" to create new basket

Message Customer

Run query "SELECT Email FROM CUSTOMERS WHERE CustomerID = \$customerID" to get current customer email address

Generate and send email to customer email with message \$message

Add to Basket

If CustomerID or ProductID are invalid, then exit and return error.

Run query "SELECT BasketID, ProductArray FROM Baskets WHERE CustomerID = \$customerID" to get current Basket ID

If BasketID exists

\$updatedProductArray = \$productArray + \$newProductID

Run query "UPDATE Baskets SET ProductArray = \$updatedProductArray, LastModified = \$now WHERE BasketID = \$basketID" to update the basket

Else

Run query "INSERT INTO Baskets (CustomerID, ProductArray, LastModified, Active) VALUES (\$customerID, [\$newProductID], \$now, 1)" to create basket

Place/Unplace Product on Sale

If ProductID is invalid, then exit and return error.

If action = set

Run query "UPDATE Products SET SaleStatus = 1, SalePrice = \$salePrice
WHERE ProductID = \$productID" to get mark the product as on sale

Else if action = remove

Run query "UPDATE Products SET SaleStatus = 0, SalePrice = NULL WHERE
ProductID = \$productID" to get mark the product as not on sale

Background Process Task

Run query "SELECT * FROM BACKGROUND_PROCESSES WHERE Days LIKE
'%\$todayDay%' OR Times LIKE '%\$todayTime%'" to get the list of tasks to run.

For each TaskID returned

If TaskID is invalid, skip

If \$now >= LastRan + Frequency

Run task with TaskID

Run query "UPDATE BACKGROUND_PROCESSES SET LastRan = \$now WHERE
ProcessID = \$processID" to update the time the task last ran (now)

Standing Order

If orderID invalid, exit and return error.

Get current \$standingOrderID:

Run query: "SELECT StandingOrderID FROM Standing_Orders WHERE orderID =
\$orderID"

If exists, run query: "UPDATE Standing_Orders SET Frequency = \$Frequency,
StartDate = \$startDate, EndDate = \$endDate, Active = \$Active WHERE
StandingOrderID = \$standingOrderID"

Else, insert new record:

Run query: "INSERT INTO Standing_Orders (OrderID, Frequency,
StartDate, EndDate, Active) VALUES (\$orderID, \$frequency,
\$startDate, \$endDate, \$active)"

Place Order

If CustomerID or BasketID is invalid, exit with error.

Get customer balance: "SELECT Balance FROM Customers WHERE CustomerID = \$customerID"

Set \$productArray = Result of query: "SELECT ProductArray from Baskets WHERE BasketID = \$basketID"

For each productID in \$productArray

Check stock: Run query "SELECT stock FROM Products where ProductID = \$productID"

If insufficient stock, remove from array and generate error message.

Update product array associated with order:

Run query: "UPDATE Baskets SET ProductArray = \$productArray WHERE BasketID = \$basketID"

Get address associated with customer: "SELECT Address FROM Customers WHERE CustomerID = \$customerID"

Calculate distance based on address to find \$range.

Get \$routeID and \$deliveryCost: "SELECT RouteID, Cost FROM Delivery_Routes WHERE Range = \$range"

Find \$driverID for route: Run query: "SELECT driverID FROM Delivery_People WHERE routeID = \$routeID"

If no available driver, exit with error.

Calculate \$salesTax = .06 * \$basePrice

Increase customer balance: "UPDATE Customers SET Balance = (\$balance + \$basePrice + \$salesTax + \$deliveryCost)"

Create order record: Run query "INSERT INTO ORDERS (BasketID, PaymentID, DeliveryDate, DeliveryTimeRange, DriverID, BasePrice, SalesTax, DeliveryCharge) VALUES (\$basketID, \$paymentID, \$deliveryDate, \$deliveryTimeRange, \$driverID, \$basePrice, \$salesTax, \$deliveryCost)"

Fulfill Order

If OrderID not valid, exit with error.

Run query: "INSERT INTO TRANSACTIONS (OrderID) VALUES (\$orderId)"

Create tickets and bill, dispatch driver.

Update transaction record with times, comments upon delivery.

Receive Payment

If orderID is not valid, exit with error.

Find associated \$transaction: "SELECT TransactionID FROM Transactions WHERE orderID = \$orderId"

If no valid \$transaction, exit with error.

Get current \$balance: "SELECT Balance FROM Customers WHERE CustomerID = \$customerID"

Update transaction record: "UPDATE Transactions SET AmountPaid = \$amountPaid, DateTimePaid = %currentDateTime%"

Decrease customer balance: "UPDATE Customers SET Balance = (\$balance - \$amountPaid)"

Generate Average Basket Value Report

Begin with empty array \$baskets

Run query: "SELECT BasketID FROM Baskets WHERE \$startRange < LastModified AND \$endRange > LastModified"

Insert basketID's from query into \$baskets

For each basketID in \$baskets:

Get \$productArray: Run query: "SELECT productArray FROM Baskets WHERE BasketID = \$basketID = \$basketID"

For each \$productID in \$productArray, add value to \$sum: "SELECT price FROM products WHERE productID = \$productID"

Divide \$sum by number of baskets.

Display average value and graph.

Generate Best/Worst Seller Report

Find orders in last week: "SELECT OrderID, BasketID FROM Orders WHERE DeliveryTime > (\$now - 1week)"

For each basketID

For each productID

Add to \$productsSold[]

Sort products sold by quantity.

Run query "SELECT productID FROM Products GROUP BY Category"

For each Category, sort find lowest number of products sold (lowest value indices in array). Of these, select \$numToPutOnSale.

Find highest number of products sold from each category (highest valued indices in array).

Display best and worst selling products.

Display \$numToPutOnSale of lowest selling products as recommendation for sale items.

Generate Delinquency Report

Run query: "SELECT CustomerID FROM Customers WHERE balance > 0 AND balanceDate < \$maximumDormant" to get delinquent customerID's.

For each customerID:

Use Message Customer (MCT) task to send message.

Call De-activate Customer (DCT)

Generate Suggest Product Report

If no item added, return blank section.

Get \$category of \$mostRecentProduct: "SELECT Category FROM Products WHERE ProductID = \$mostRecentProduct"

Run query "SELECT productID FROM Products WHERE Category = \$Category AND Stock > 0"

Sort productID's by price, choose nearest 4 to \$mostRecentProductPrice.

Display results below basket on check-out page.

6 Program Source Code

6.1 Primary Page Code

Background Tasks (backgroundtasks.php)

```
<?php
// This file will be run automatically by a scheduled task every hour or so on the server

// Connect to DB and common functions
include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/global.inc.php');
$debug = true;

// Check the database for any scheduled tasks that should be run
$backgroundTasksQuery = "SELECT * FROM BACKGROUND_PROCESSES;";
if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Checking for scheduled background tests with query \"$backgroundTasksQuery\".<br/>";
$backgroundTasksResult = mysql_query($backgroundTasksQuery);
while($backgroundTasksRows = mysql_fetch_assoc($backgroundTasksResult)) {
    $runTask = true;

    // Check to see if this task runs today
    $taskDays = explode(",", $backgroundTasksRows['Days']);
    if(!$taskDays[date('w')]) $runTask = false; // If bit for day of week is not set, do not run

    // Check to see if this task runs this hour
    /* DISABLED FOR EXAMPLE
    $taskHours = explode(",", $backgroundTasksRows['Times']);
    if(!in_array(date('H'), $taskHours)) $runTask = false; // If hour is not one of the hours task should run at, do not run
    */

    // Check to see if task has been run within past Requency of LastRun
    $lastRun = strtotime($backgroundTasksRows['LastRun']);
    $nextRun = $lastRun + ($backgroundTasksRows['Frequency'] * 60 * 60);
    if($nextRun > time()) $runTask = false; // If next run time is in the future, do not run

    if($runTask) {
        if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Task found: ProcessID = ".$backgroundTasksRows['ProcessID']."; TaskID = ".$backgroundTasksRows['TaskID']."; Next Run = ".date('m/d/y h:ia', $nextRun)."<br/>";
        runTask($backgroundTasksRows['TaskID'], $debug);
        mysql_query("UPDATE BACKGROUND_PROCESSES SET LastRun = NOW() WHERE ProcessID = ".$backgroundTasksRows['ProcessID']."");
    }
}
if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Background process c
```

```

heck complete.<br/>";

function runTask($task, $debug) {
    switch($task) {
        case 'PPOST': // Place Products on Sale
            if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Place Products
on Sale (PPOST) task found. Running...<br/>";
            $numChanged = unPlaceProductOnSaleTask();
            if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Place Products
on Sale (PPOST) task complete. <u>$numChanged</u> products were place
d on sale.<br/>";
            break;
        case 'POT': // Place Order Task for Standing Order
            $numOrders = 0;
            if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Place Order Ta
sk for Standing Order (POT) task found. Running...<br/>";
            $standingOrdersQuery = "SELECT * FROM STANDING_ORDERS WHERE Ac
tive = 1 AND StartDate <= NOW() AND EndDate >= NOW()";
            if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Checking for s
cheduled standing orders with query \"\$standingOrdersQuery\".<br/>";
            $standingOrdersResult = mysql_query($standingOrdersQuery);
            while($standingOrdersRow = mysql_fetch_assoc($standingOrdersRe
sult)) {
                // Look at the last order placed for this standing order to
see if it is time to submit another order
                $orderTransactionHistoryQuery = "SELECT DateTimeOrdered FROM
TRANSACTIONS WHERE StandingOrderID = '". $standingOrdersRow['StandingO
rderID']."' ORDER BY DateTimeOrdered DESC LIMIT 1;";
                $orderTransactionHistoryResult = mysql_query($orderTransacti
onHistoryQuery);
                $orderTransactionHistory = mysql_fetch_assoc($orderTransacti
onHistoryResult);
                if((strtotime($orderTransactionHistory['DateTimeOrdered']) +
($standingOrdersRow['Frequency'] * 24 * 60 * 60)) <= time()) {
                    $orderInfoResult = mysql_query("SELECT * FROM ORDERS WHERE
OrderID = '". $standingOrdersRow['OrderID']."'");
                    $orderInfo = mysql_fetch_assoc($orderInfoResult);
                    $customerInfoResult = mysql_query("SELECT * FROM CUSTOMERS
WHERE OrderID = '". $orderInfo['CustomerID']."'");
                    $customerInfo = mysql_fetch_assoc($customerInfoResult);
                    // Make sure customer is not deactivated before submitting
order
                    if($customerInfo['Active'] = 'N') {
                        if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Customer
has been deactivated, aborting order.<br/>";
                    } else {
                        $subtotal = 0; $taxableSubtotal = 0;
                        $driverIDQuery = "SELECT DriverID FROM DELIVERY_PEOPLE WHE
RE RouteID = '". $orderInfo['CustomerID']."' AND Work
Hours = '". $orderInfo['DeliveryTimeRange']."'";
                        $driverIDResult = mysql_query($driverIDQuery);
                        $driverIDRow = mysql_fetch_assoc($driverIDResult);
                        $driverID = $driverIDRow['DriverID'];
                        if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Standing O
rder found: CustmerID = '". $orderInfo['CustomerID']."'"; StandingOrderID
= '". $standingOrdersRow['StandingOrderID']."'"; OrderID = '". $standingOrde
rsRow['OrderID']."'"; Submitting order...<br/>";

```

```

        // Check for out of stock products first
        $basketItemsResult = mysql_query("SELECT * FROM BASKETS WHERE BasketID = '". $orderInfo['BasketID']. "'");
        if(mysql_num_rows($basketItemsResult)) {
            $basketItemsRow = mysql_fetch_assoc($basketItemsResult);
            $basketItems = explode(",", $basketItemsRow['ProductArray']);

            $futureStockAdj = array(); $outOfStock = array();

            foreach($basketItems as $key => $thisProductID) {
                $productInfoResult = mysql_query("SELECT * FROM PRODUCTS WHERE ProductID = '". $thisProductID. "'");
                $productInfoRow = mysql_fetch_assoc($productInfoResult);

                if(!$futureStockAdj[$thisProductID]) {
                    $futureStockAdj[$thisProductID] = $futureStock = $productInfoRow['Stock'] - 1;
                } else {
                    $futureStockAdj[$thisProductID] = $futureStock = $futureStockAdj[$thisProductID] - 1;
                    if($futureStock < 1) {
                        $outOfStock[] = $thisProductID;
                        $futureStockAdj[$thisProductID] = $futureStockAdj[$thisProductID] + 1;
                        unset($basketItems[$key]);
                        if($debug) echo date('m/d/y H:i:s') . " [DEBUG] The product \"". $productInfoRow['Description']. "</a>\" is out of stock and has been removed from the basket.</p>";
                    } else {
                        if($productInfoRow['SaleStatus']) {
                            $subtotal = $subtotal + $productInfoRow['SalePrice'];
                        }
                        if($productInfoRow['Taxable']) {
                            $taxableSubtotal = $taxableSubtotal + $productInfoRow['SalePrice'];
                        }
                    }
                } else {
                    $subtotal = $subtotal + $productInfoRow['Price'];
                    if($productInfoRow['Taxable']) {
                        $taxableSubtotal = $taxableSubtotal + $productInfoRow['Price'];
                    }
                }
            }

            if (count($outOfStock)) {
                $updateBasketItemsResult = mysql_query("UPDATE BASKETS SET ProductArray = '". trim(implode(",", $basketItems), ",") . "', LastModified = NOW() WHERE BasketID = '". $orderInfo['BasketID']. "'");
            }

            $taxSubtotal = (0.06 * $taxableSubtotal);
            $deliveryCost = getDeliveryCost($orderInfo['CustomerID']);

            // Submit order
            $paymentTypeDetailsResult = mysql_query("SELECT * FROM PAYMENTTYPES WHERE PaymentTypeID = '". $orderInfo['PaymentTypeID']. "'");
            if($paymentTypeDetailsResult) {
                $paymentTypeDetailsRow = mysql_fetch_assoc($paymentTypeDetailsResult);
                $paymentTypeDetails = $paymentTypeDetailsRow['PaymentTypeDetails'];
            }
        }
    }
}

```

```

MENT_TYPES WHERE CustomerID = '". $orderInfo['CustomerID']. "' AND Payme
ntID='". $orderInfo['PaymentID']. "'";");
    $paymentTypeDetailsRow = mysql_fetch_assoc($paymentTypeDet
ailsResult);
    if($paymentTypeDetailsRow['PaymentType'] == "Checking Acco
unt" && ($paymentTypeDetailsRow['PaymentInfo'] < ($customerInfo['Balan
ce'] + ($subtotal + $taxSubtotal + $deliveryCost)))) {
        date('m/d/y H:i:s') . " [ERROR] Account Balance will exc
eed Checking Accounts Balance. Order cancelled.<br/>";
    } else {
        // Create Order
        $insertOrderQuery = "INSERT INTO ORDERS (CustomerID, Bas
ketID, PaymentID, DeliveryDate, DeliveryTimeRange, DriverID, BasePrice
, SalesTax, DeliveryCharge) VALUES ('". $orderInfo['CustomerID']. "', '"
. $orderInfo['BasketID']. "', '". $orderInfo['PaymentID']. "', '". date('Y-
m-
d')."', '". $orderInfo['DeliveryTimeRange']. "', '". $driverID. "', '". $su
btotal. "', '". $taxSubtotal. "', '". $deliveryCost. "')";
        $insertOrderResult = mysql_query($insertOrderQuery);
        if(mysql_error())
            date('m/d/y H:i:s') . " [ERROR] Could not create order
! MySQL Error: <u>".mysql_error(). "</u><br/>";
        else {
            $newOrderID = mysql_insert_id();
            $getTicketBillNumsResult = mysql_query("SELECT MAX(Tic
ketNum) AS TicketNum, MAX(BillNum) AS BillNum FROM TRANSACTIONS");
            if(mysql_error()) {
                date('m/d/y H:i:s') . " [ERROR] Could not get new Ti
cket and Bill Numbers! MySQL Error: <u>".mysql_error(). "</u><br/>";
                $undoInsertOrderQuery = "DELETE FROM ORDERS WHERE Or
derID = '$newOrderID'";
                $undoInsertOrderResult = mysql_query($undoInsertOrde
rQuery);
            } else {
                $ticketBillNums = mysql_fetch_assoc($getTicketBillNu
msResult);

                // Create Dispatch Ticket
                $newTicketNum = $ticketBillNums['TicketNum'] + 1;
                makeTicket($newOrderID, $newTicketNum);

                // Create Bill
                $newBillNum = $ticketBillNums['BillNum'] + 1;
                makeBill($newOrderID, $newBillNum);

                // Create Transaction Info
                $insertTransactionInfoQuery = "INSERT INTO TRANSACTI
ONS (OrderID, StandingOrderID, TicketNum, BillNum, DateTimeOrdered) VA
LUES ('". $newOrderID. "', '". $standingOrdersRow['StandingOrderID']. "',
'". $newTicketNum. "', '". $newBillNum. "', NOW());";
                $insertTransactionInfoResult = mysql_query($insertTr
ansactionInfoQuery);
                if(mysql_error()) {
                    date('m/d/y H:i:s') . " [ERROR] Could not create t
ransaction information! MySQL Error: <u>".mysql_error(). "</u><br/>";
                    $undoInsertOrderQuery = "DELETE FROM ORDERS WHERE
OrderID = '$newOrderID'";

```

```

        $undoInsertOrderResult = mysql_query($undoInsertOrderQuery);
    } else {
        // Update Account Balance
        $updateAccountBalanceQuery = "UPDATE CUSTOMERS SET
        Balance = '".toMoney(($customerInfo['Balance'] -
        ($subtotal + $taxSubtotal + $deliveryCost)),false)."', BalanceDate =
        CURDATE() WHERE CustomerID = '". $orderInfo['CustomerID']. "';";
        $updateAccountBalanceResult = mysql_query($updateAccountBalanceQuery);

        // Update Product Stock
        $basketItemsResult = mysql_query("SELECT * FROM BASKETS WHERE CustomerID = '". $orderInfo['CustomerID']. "' AND BasketID =
        '". $orderInfo['BasketID']. "';");
        $basketItemsRow = mysql_fetch_assoc($basketItemsResult);
        $basketItems = explode(",", $basketItemsRow['ProductArray']);

        foreach($basketItems as $basketItemID)
            $updateProductStockResult = mysql_query("UPDATE PRODUCTS SET Stock = (Stock - 1) WHERE ProductID = '$basketItemID';");

        $numOrders++;
        if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Standing Order ". $standingOrdersRow['StandingOrderID']. " successfully placed.<br/>";
    }
}
}
}
}
}
if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Place Order Task for Standing Order (PPOST) task complete. <u>$numOrders</u> orders were placed.<br/>";
break;
case 'RPT.3': // Generate Delinquency Report
    if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Generate Delinquency Report<strong></strong> (RPT.3) task found. Running...<br/>";
    $numDisabled = 0; $balanceAmountThreshold = 25; $balanceDateThreshold = date('Y-m-d', time() - (7 * 24 * 60 * 60));
    $delinquentCustomerQuery = "SELECT * FROM CUSTOMERS WHERE Active = 'Y' AND Balance < $balanceAmountThreshold AND BalanceDate <= '$balanceDateThreshold' ORDER BY LastName, FirstName;";
    if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Checking for delinquent customers with query \"\$delinquentCustomerQuery\".<br/>";
    $delinquentCustomerResult = mysql_query($delinquentCustomerQuery);
    while($delinquentCustomer = mysql_fetch_assoc($delinquentCustomerResult)) {
        if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Delinquent Customer found: ".$delinquentCustomer['LastName'].", ".$delinquentCustomer['FirstName']. " (".$delinquentCustomer['CustomerID'].") at ".toMoney($delinquentCustomer['Balance'],true). " since ".$delinquentCustomer['BalanceDate']?date('m/d/y',strtotime($delinquentCustomer['BalanceDate'])):"always"). "<br/>";
    }
}

```

```

        // Disable customer in the database
        //mysql_query("UPDATE CUSTOMERS SET Active = 'N' WHERE CustomerID = '". $delinquentCustomer['CustomerID'] .'"");

        // Message the customer delinquency notice
        messageCustomer($delinquentCustomer['CustomerID'], "Attention
        " . $delinquentCustomer['FirstName'] . " " . $delinquentCustomer['LastName'] . ",\nYour eGroceries has been deactivated due to an outstanding balance of ".toMoney($delinquentCustomer['Balance'],true)." since " . ($delinquentCustomer['BalanceDate']?date('m/d/y',strtotime($delinquentCustomer['BalanceDate'])):"always").". Please contact an administrator to reactivate your account.");

        $numDisabled++;
    }
    if($debug) echo date('m/d/y H:i:s') . " [DEBUG] Generate Delinquency Report<strong></strong> (RPT.3) task complete. <u>$numDisabled</u> accounts were disabled.<br/>";
    break;
    default:
        echo date('m/d/y H:i:s') . " [ERROR] Invalid TaskID \"$task\" found!<br/>";
        break;
    }
}
}
?>

```

Customer Account (account.php)

```

<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
        <title>eGroceries</title>
        <link rel="stylesheet" href="/styles/main.css" type="text/css">
    </head>
    <body>
        <div id="frame">
            <div id="header">
                <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/header.inc.php'); ?>
            </div>
            <div id="nav">
                <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/nav.inc.php'); ?>
            </div>
            <div id="content">
                <h1>My eGroceries Account</h1>
                <?php
                    if(!$_SESSION['userinfo']) {

```

```

        echo "<p class='error'><strong>Error!</strong> You are not l
ogged in! Please wait to be redirected...</p><meta http-
equiv='REFRESH' content='0;url=signin.php'>";
    } else {
        if($_POST['update']) {
            $valid = true; $missing = array(); $userinfoRow = $_POST;

            if(!$_POST['FirstName']) { $valid = false; $missing[] = 'F
irst Name'; }
            if(!$_POST['LastName']) { $valid = false; $missing[] = 'La
st Name'; }
            if(!$_POST['AddressStreet']) { $valid = false; $missing[]
= 'Address: Street'; }
            if(!$_POST['AddressCity']) { $valid = false; $missing[] =
'Address: City'; }
            if(!$_POST['AddressZip']) { $valid = false; $missing[] = '
Address: Zip Code'; }
            if(!$_POST['AddressState']) { $valid = false; $missing[] =
'Address: State Code'; }
            if(!$_POST['Gender']) { $valid = false; $missing[] = 'Gend
er'; }
            if(!$_POST['Email']) { $valid = false; $missing[] = 'Email
Address'; }

            if($valid) {
                $updateQuery = "UPDATE CUSTOMERS SET FirstName = '".mysql
_real_escape_string($_POST['FirstName'])."', LastName = '".mysql_real
_escape_string($_POST['LastName'])."', AddressStreet = '".mysql_real_e
scape_string($_POST['AddressStreet'])."', AddressCity = '".mysql_real_e
scape_string($_POST['AddressCity'])."', AddressZip = '".mysql_real_esc
ape_string($_POST['AddressZip'])."', AddressState = '".mysql_real_esc
ape_string($_POST['AddressState'])."', Gender = '".mysql_real_escape_s
tring($_POST['Gender'])."', Email = '".mysql_real_escape_string($_POST
['Email'])."' WHERE CustomerID = '".$_SESSION['userinfo']['CustomerID'
]."'"';";

                $updateResult = mysql_query($updateQuery);
                if(mysql_error())
                    echo "<p class='error'><strong>Error!</strong> MySQL E
rror: <u>".mysql_error()."</u></p>";
                else
                    echo "<p class='success'><strong>Success!</strong> You
r information has been updated.</p>";
            } else {
                echo "<p class='error'><strong>Error!</strong> The follo
wing fields were missing and are required: <u>".implode(", ", $missing)
."</u></p>";
            }
        } else {
            $userinfoResult = mysql_query("SELECT * FROM CUSTOMERS WHE
RE CustomerID = '".$_SESSION['userinfo']['CustomerID']."'");
            $userinfoRow = mysql_fetch_assoc($userinfoResult);
            $_SESSION['userinfo'] = $userinfoRow;
        }
        if($_SESSION['userinfo']['Active'] == 'N')
            echo "<p class='warning'><strong>Warning!</strong> Your a
ccount has been labeled Inactive as a result of your choice or due to
your outstanding balance.<br/>Please contact an administrator to recti

```

```

fy your situation, and then visit your <a href='account_status.php'>Ac
count Status</a> page to Reactivate your account.</p>";
?>
<script type="text/javascript"
  src="http://maps.google.com/maps/api/js?sensor=false">
</script>
<div id="map_canvas" style="width: 300px; height: 300px; flo
at: right; padding: 2px; border: 1px solid #ccc; margin-
top: 5px;"></div>
<script type="text/javascript">
  var youraddresslatlong;

  var geocoder = new google.maps.Geocoder();
  var latlng = new google.maps.LatLng(38.98989,-76.936226);
  var myOptions = {
    mapTypeControl: false,
    mapTypeId: google.maps.MapTypeId.ROADMAP
  };
  var map = new google.maps.Map(document.getElementById("map
_canvas"),
    myOptions);

  var youraddressimage = new google.maps.MarkerImage('http:
//www.inatel.br/iwt/components/com_docman/themes/default/images/icons/
32x32/home.png',
    // This marker is 20 pixels wide by 32 pixels tall.
    new google.maps.Size(32, 32),
    // The origin for this image is 0,0.
    new google.maps.Point(0,0),
    // The anchor for this image is the base of the flagpole
    at 0,32.
    new google.maps.Point(0, 32));
  var address = "<?php echo $userinfoRow['AddressStreet'] .
", " . $userinfoRow['AddressCity'] . " " . $userinfoRow['AddressState'
] . ", " . $userinfoRow['AddressZip']; ?>";
  geocoder.geocode( { 'address': address}, function(results,
status) {
    if (status == google.maps.GeocoderStatus.OK) {
      youraddresslatlong = results[0].geometry.location;
      var marker = new google.maps.Marker({
        map: map,
        icon: youraddressimage,
        position: results[0].geometry.location,
        title: "Your Address"
      });
      var youraddressinfowindow = new google.maps.InfoWindow
(
      { content: "Your Address",
        size: new google.maps.Size(10,10)
      });
      google.maps.event.addListener(marker, 'click', functio
n() {
        youraddressinfowindow.open(map,marker);
      });

      var latlngbounds = new google.maps.LatLngBounds();
      latlngbounds.extend(youraddresslatlong);
    }
  });

```

```

        latlngbounds.extend(latlng);
        map.setCenter(latlngbounds.getCenter());
        map.fitBounds(latlngbounds);
    } else {
        alert("Geocode was not successful for the following reasons: " + status);
    }
});

var warehouseimage = new google.maps.MarkerImage('http://www.erply.com/images/warehouse_32x32.png',
    // This marker is 20 pixels wide by 32 pixels tall.
    new google.maps.Size(32, 32),
    // The origin for this image is 0,0.
    new google.maps.Point(0,0),
    // The anchor for this image is the base of the flagpole
    at 0,32.
    new google.maps.Point(0, 32));
var warehouseMarker = new google.maps.Marker({
    map: map,
    icon: warehouseimage,
    position: latlng,
    title: "eGroceries Warehouse"
});
var warehouseinfowindow = new google.maps.InfoWindow(
    { content: "eGroceries Warehouse",
      size: new google.maps.Size(10,10)
    });
google.maps.event.addListener(warehouseMarker, 'click',
function() {
    warehouseinfowindow.open(map,warehouseMarker);
});
</script>
<p>
<form method="POST" style="width: 425px">
<table style="width: 425px">
<tr height="30">
<td colspan="2" align="center"><h2 style="text-decoration: underline; font-size: 18px; margin-top: 0px">Personal Information</h2></td>
</tr>
<tr height="30">
<td style="font-weight: bold">Customer ID</td>
<td style="padding-left: 2px; font-size: 12px;"><?= $userinfoRow['CustomerID']; ?></td>
</tr>
<tr height="30">
<td style="font-weight: bold">First Name</td>
<td><input type="text" name="FirstName" size="30" value="<?= $userinfoRow['FirstName']; ?>" /></td>
</tr>
<tr height="30">
<td style="font-weight: bold">Last Name</td>
<td><input type="text" name="LastName" size="30" value="<?= $userinfoRow['LastName']; ?>" /></td>
</tr>
<tr height="30">

```

```

        <td style="font-weight: bold">Address: Street</td>
        <td><input type="text" name="AddressStreet" size="30
" value="<?=$userinfoRow['AddressStreet']; ?>" /></td>
    </tr>
    <tr height="30">
        <td style="font-weight: bold">Address: City</td>
        <td><input type="text" name="AddressCity" size="30"
value="<?=$userinfoRow['AddressCity']; ?>" /></td>
    </tr>
    <tr height="30">
        <td style="font-
weight: bold">Address: State Code</td>
        <td><input type="text" name="AddressState" size="2"
maxlength="2" value="<?=$userinfoRow['AddressState']; ?>" /></td>
    </tr>
    <tr height="30">
        <td style="font-weight: bold">Address: Zip</td>
        <td><input type="text" name="AddressZip" size="5" ma
xlength="5" value="<?=$userinfoRow['AddressZip']; ?>" /></td>
    </tr>
    <tr height="30">
        <td style="font-weight: bold">Gender</td>
        <td><select name="Gender">
            <option <? if($userinfoRow['Ge
nder'] == "Male") echo "selected='selected'"; ?>>Male</option>
            <option <? if($userinfoRow
['Gender'] == "Female") echo "selected='selected'"; ?>>Female</option>
            <option <? if($userinfoRow
['Gender'] == "Other") echo "selected='selected'"; ?>>Other</option>
        </select></td>
    </tr>
    <tr>
        <td colspan="2" align="center"><h2 style="text-
decoration: underline; font-size: 18px;">Account Information</h2></td>
    </tr>
    <tr height="30">
        <td style="font-weight: bold">Username</td>
        <td style="padding-left: 2px; font-
size: 12px;"><?=$userinfoRow['Username']; ?></td>
    </tr>
    <tr height="30">
        <td style="font-weight: bold">Password</td>
        <td><input type="button" name="ChangePassword" value
="Change Password" onClick="window.location='changepass.php'" /></td>
    </tr>
    <tr height="30">
        <td style="font-weight: bold">Email Address</td>
        <td><input type="text" name="Email" size="30" value=
"<?=$userinfoRow['Email']; ?>" /></td>
    </tr>
    <tr height="30">
        <td style="font-weight: bold">Payment Methods</td>
        <td><input type="button" name="ManagePaymentMethods"
value="Manage Payment Methods" onClick="window.location='paymentmetho
ds.php'" /></td>
    </tr>
    <tr height="30">

```

```

        <td style="font-weight: bold">Account Balance</td>
        <td style="padding-left: 2px; font-
size: 12px;"><?= toMoney($userinfoRow['Balance'],true) . " since " . (
$userinfoRow['BalanceDate']?date('m/d/y',strtotime($userinfoRow['Balan
ceDate'])):"always"); ?></td>
    </tr>
    <tr height="30">
        <td style="font-weight: bold">Account Status</td>
        <td><input type="button" name="AccountStatus" value=
"Account Status" onClick="window.location='account_status.php'" /></td>
    </tr>
    <tr height="30">
        <td style="font-weight: bold">Past Orders</td>
        <td><input type="button" name="PastOrders" value="Vi
ew Past Orders" onClick="window.location='pastorders.php'" /></td>
    </tr>
    <tr height="30">
        <td style="font-weight: bold">Standing Orders</td>
        <td><input type="button" name="StandingOrders" value
="Modify Standing Orders" onClick="window.location='standingorders.php
'" /></td>
    </tr>
    <tr height="30">
        <td style="font-
weight: bold">Transaction History</td>
        <td><input type="button" name="TransactionHistory" v
alue="View Transaction History" onClick="window.location='transactionh
istory.php'" /></td>
    </tr>
    <tr>
        <td colspan="2" align="center">&nbsp;  </td>
    </tr>
    <tr height="30">
        <td colspan="2" align="center"><input type="submit"
name="update" value="Update Information" /></td>
    </tr>
</table>
</form>
</p>
<?php
}
?>
</div>
<div id="footer">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/footer.inc.php'); ?>
</div>
</div>
</body>
</html>

```

Customer Account Status (account_status.php)

```

<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes
/global.inc.php'); ?>

```

```

<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
    <title>eGroceries</title>
    <link rel="stylesheet" href="/styles/main.css" type="text/css">
  </head>
  <body>
    <div id="frame">
      <div id="header">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/header.inc.php'); ?>
      </div>
      <div id="nav">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/nav.inc.php'); ?>
      </div>
      <div id="content">
        <h1>My eGroceries Account - User Account Status</h1>
        <?php
          if(!$SESSION['userinfo']) {
            echo "<p class='error'><strong>Error!</strong> No user logged in! Please wait to be redirected...</p><meta http-equiv='REFRESH' content='2;url=signin.php'>";
          } else {
            if($_POST['Confirm']) {
              $updateQuery = "UPDATE CUSTOMERS SET Active = '". $_POST['status']."' WHERE CustomerID = '". $SESSION['userinfo']['CustomerID']."'";

              $updateResult = mysql_query($updateQuery);
              if(mysql_error())
                echo "<p class='error'><strong>Error!</strong> MySQL Error: <u>".mysql_error()."</u></p>";
              else
                echo "<p class='success'><strong>Success!</strong> Your information has been updated.</p>";
            }
          }
        <?>
        <form method="POST" style="width: 425px">
          <table style="width: 425px">
            <tr>
              <td colspan="2" align="center"><h2 style="text-decoration: underline; font-size: 18px; margin-top: 0px">Account Status</h2></td>
            </tr>
            <tr>
              <td><input type="radio" name="status" value="Y" <? if (mysql_result(mysql_query("SELECT Active FROM CUSTOMERS WHERE CustomerID = '". $SESSION['userinfo']['CustomerID']."'"), 0) == 'Y') echo "checked"; ?> />Active</td>
            </tr>
          </table>
        </form>
      </div>
    </div>
  </body>
</html>

```

```

        <tr>
            <td><input type="radio" name="status" value="N" <? if (mysql_result(mysql_query("SELECT Active FROM CUSTOMERS WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']."'"), 0) == 'N') echo "checked"; ?> />Inactive</td>
        </tr>
        <tr>
            <td colspan="2" align="center"><input type="submit" name="Confirm" value="Update Status" /></td>
        </tr>
    </table>
</form>
</div>
<div id="footer">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/footer.inc.php'); ?>
</div>
</body>
</html>

```

Administrative Options (admin.php)

```

<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
        <title>eGroceries</title>
        <link rel="stylesheet" href="/styles/main.css" type="text/css">
    </head>
    <body onload='init()' onunload='GUnload() '>
        <div id="frame">
            <div id="header">
                <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/header.inc.php'); ?>
            </div>
            <div id="nav">
                <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/nav.inc.php'); ?>
            </div>
            <div id="content">
                <h1>eGroceries Administration</h1>
                <?php
                    if(!$_SESSION['userinfo']) {
                        echo "<p class='error'><strong>Error!</strong> You are not logged in! Please wait to be redirected...</p><meta http-equiv='REFRESH' content='0;url=signin.php'>";
                    } else if(!$_SESSION['userinfo']['AdminUser']) {
                        echo "<p class='error'><strong>Error!</strong> You are not authorized to access this page!</p>";
                    } else {

```

```

        if(!$GET['page']) {
            echo "<h2 class='h2'>Administrative Functions</h2>";
            echo "<p>
                <ul>
                    <li><a href='admin.php?page=manageusers'>Manage User
s</a></li>
                    <li><a href='admin.php?page=placeproductonsale'>Plac
e Products on Sale</a></li>
                    <li><a href='admin.php?page=processorders'>Process O
rders</a></li>
                    <li><a href='backgroundtasks.php'>Simulate Backgroun
d Tasks</a></li>
                </ul>
            </p>";
            echo "<h2 class='h2'>Reports</h2>";
            echo "<p>
                <ul>
                    <li><a href='admin.php?page=reports&report=ABVR'>Ave
rage Basket Value Report</a></li>
                    <li><a href='admin.php?page=reports&report=BWSR'>Bes
t/Worst Seller Report</a></li>
                    <li><a href='admin.php?page=reports&report=DR'>Delin
quency Report</a></li>
                </ul>
            </p>";
        } else if($GET['page'] == "manageusers") {
            echo "<h2 class='h2'>Manage Users</h2>";
            if($_POST['updateStatus']) {
                $customerUpdateQuery = "UPDATE CUSTOMERS SET Active = '"
.$_POST['updateTo']."' WHERE CustomerID = '" .$_POST['updateID']."'";
                $customerUpdateResult = mysql_query($customerUpdateQuery
);
                if(mysql_error())
                    echo "<p class='error'><strong>Error!</strong> MySQL E
rror: <u>".mysql_error()."</u></p>";
                else
                    echo "<p class='success'><strong>Success!</strong> ".$
$_POST['updateName']."'s account has been ".($_POST['updateTo']=='Y'? "a
ctivated": "deactivated")."</p>";
            }
            echo "<table cellpadding='5' cellspacing='2' class='outsta
ndingOrders'>";
            echo "<tr><th align='center'>ID</th><th>Last Name</th><th>
First Name</th><th align='center'>Account Balance</th><th align='cente
r'>Status</th><th align='center'>Activate/Deactivate</th></tr>";
            $userListResult = mysql_query("SELECT * FROM CUSTOMERS ORD
ER BY LastName, FirstName");
            if(!mysql_num_rows($userListResult))
                echo "<tr><td colspan='6' align='center'><i>No Customers
found!</i></td></tr>";
            while($userListRow = mysql_fetch_assoc($userListResult)) {
                if($i++ % 2) $color = "style='background-
color: #F3F3F3'"; else unset($color);
                echo "<tr $color>
                    <td align='center'>".$_userListRow['CustomerID']. "</t
d>
                    <td>".$_userListRow['LastName']. "</td>

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        <td>".$userListRow['FirstName']. "</td>
        <td>".$toMoney($userListRow['Balance'],true) . " sinc
e " . ($userListRow['BalanceDate']?date('m/d/y',strtotime($userListRow
['BalanceDate'])):"always"). "</td>
        <td align='center'>".$($userListRow['Active']=='Y'? "A
ctive": "Inactive"). "</td>
        <td align='center'>
            <form method='post'>
                <input type='hidden' name='updateID' value='".$$u
serListRow['CustomerID']. "' />
                <input type='hidden' name='updateName' value='".$
$userListRow['FirstName'] . " " . $userListRow['LastName']. "' />
                <input type='hidden' name='updateTo' value='".$($
userListRow['Active']=='Y'? "N": "Y"). "' />
                <input type='submit' name='updateStatus' value='
".$($userListRow['Active']=='Y'? "Deactivate User": "Activate User"). "' />
            </form>
        </td>
    </tr>";
}
echo "</table>";
} else if($_GET['page'] == "placeproductonsale") {
    echo "<h2 class='h2'>Place Products on Sale</h2>";
    if($_POST['confirm']) {
        runPlaceProductOnSaleTask();
        echo "<p class='success'><strong>Success!</strong> A new
batch of products have been put on sale.</p>";
    } else {
        echo "<form method='post' style='text-align: center'>
            Warning: This will remove all current sales and plac
e about 10% of the products<br/>in each subcategory on sale for a rand
om amount of 5-15% off.<br/>
            Do you wish to continue?<br/><br/>
            <input type='submit' name='confirm' value='Yes, Plac
e products on sale now' />
        </form>";
    }
} else if($_GET['page'] == "processorders") {
    echo "<h2 class='h2'>Process Orders</h2>";
    if(!$_GET['act']) {
        echo "<div style='font-
weight: bold'>Outstanding Orders</div>";
        echo "<style>table.outstandingOrders td { font-
size: 12px }</style>";
        echo "<table cellpadding='5' cellspacing='2' class='outs
tandingOrders'>";
        echo "<tr><th align='center'>ID</th><th>Customer</th><
th>Delivery Date/Time</th><th align='center'>Total</th><th align='cent
er'>Bill</th><th align='center'>Ticket</th><th align='center'>Modify</
th></tr>";
        $orderInfoListResult = mysql_query("SELECT * FROM ORDE
RS O WHERE (SELECT T.DateTimeDispatched FROM TRANSACTIONS T WHERE T.Or
derID = O.OrderID) IS NULL OR (SELECT T.AmountPaid FROM TRANSACTIONS T
WHERE T.OrderID = O.OrderID) IS NULL ORDER BY O.DeliveryDate DESC, O.
OrderID DESC");
        if(!mysql_num_rows($orderInfoListResult))
            echo "<tr><td colspan='7' align='center'><i>No Outst

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anding Orders Found</i></td></tr>";
        while($orderInfoListRow = mysql_fetch_assoc($orderInfo
ListResult)) {
            $userinfoResult = mysql_query("SELECT * FROM CUSTOME
RS WHERE CustomerID = '". $orderInfoListRow['CustomerID'] ."'");
            $userinfoRow = mysql_fetch_assoc($userinfoResult);
            $transactionInfoQuery = "SELECT * FROM TRANSACTIONS
WHERE OrderID = '". $orderInfoListRow['OrderID'] ."'";
            $transactionInfoResults = mysql_query($transactionIn
foQuery);
            $transactionInfo = mysql_fetch_assoc($transactionInf
oResults);
            $paymentTypeDetailsResult = mysql_query("SELECT * FR
OM PAYMENT_TYPES WHERE CustomerID = '". $orderInfoListRow['CustomerID']
.'" AND PaymentID='". $orderInfoListRow['PaymentID'] ."'");
            $paymentTypeDetailsRow = mysql_fetch_assoc($paymentT
ypeDetailsResult);
            if($i++ % 2) $color = "style='background-
color: #F3F3F3'"; else unset($color);
            echo "<tr $color>
                <td align='center'>". $orderInfoListRow['OrderID'
]. "</td>
                <td>". $userinfoRow['LastName'] .", ". $userinfoRow
['FirstName'] . " (ID ". $orderInfoListRow['CustomerID'] . ")</td>
                <td>". date('m/d/Y', strtotime($orderInfoListRow['
DeliveryDate'])). " ". $orderInfoListRow['DeliveryTimeRange'] . "</td>
                <td>". toMoney(($orderInfoListRow['BasePrice'] +
$orderInfoListRow['SalesTax'] + $orderInfoListRow['DeliveryCharge']), t
rue). "</td>
                <td align='center'><a href='/bills/'. $transactio
nInfo['BillNum'] . ".html" class='mainlink' target='_blank'>View Bill</a
></td>
                <td align='center'><a href='/tickets/'. $transact
ionInfo['TicketNum'] . ".html" class='mainlink' target='_blank'>View Tic
ket</a></td>
                <td align='center'><a href='admin.php?page=proce
ssorders&act=modifyorder&orderID='". $orderInfoListRow['OrderID'] . "' cla
ss='mainlink'>Modify Order</a></td>
            </tr>";
        }
        echo "</table>";
        echo "<br/>";
        echo "<div style='font-
weight: bold'>Processed Orders</div>";
        echo "<style>table.outstandingOrders td { font-
size: 12px }</style>";
        echo "<table cellpadding='5' cellspacing='2' class='outs
tandingOrders'>";
        echo "<tr><th align='center'>ID</th><th>Customer</th><
th>Delivery Date/Time</th><th align='center'>Total</th><th align='cent
er'>Bill</th><th align='center'>Ticket</th><th align='center'>Modify</
th></tr>";
        $orderInfoListResult = mysql_query("SELECT * FROM ORDE
RS O WHERE (SELECT T.DateTimeDispatched FROM TRANSACTIONS T WHERE T.Or
derID = O.OrderID) IS NOT NULL OR (SELECT T.AmountPaid FROM TRANSACTIO
NS T WHERE T.OrderID = O.OrderID) IS NOT NULL ORDER BY O.DeliveryDate
DESC, O.OrderID DESC");

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        if(!mysql_num_rows($orderInfoListResult))
            echo "<tr><td colspan='7' align='center'><i>No Processed Orders Found</i></td></tr>";
        while($orderInfoListRow = mysql_fetch_assoc($orderInfoListResult)) {
            $userinfoResult = mysql_query("SELECT * FROM CUSTOMERS WHERE CustomerID = '". $orderInfoListRow['CustomerID']."'");
            $userinfoRow = mysql_fetch_assoc($userinfoResult);
            $transactionInfoQuery = "SELECT * FROM TRANSACTIONS WHERE OrderID = '". $orderInfoListRow['OrderID']."'";
            $transactionInfoResults = mysql_query($transactionInfoQuery);
            $transactionInfo = mysql_fetch_assoc($transactionInfoResults);
            $paymentTypeDetailsResult = mysql_query("SELECT * FROM PAYMENT_TYPES WHERE CustomerID = '". $orderInfoListRow['CustomerID']."' AND PaymentID='". $orderInfoListRow['PaymentID']."'");
            $paymentTypeDetailsRow = mysql_fetch_assoc($paymentTypeDetailsResult);
            if($i++ % 2) $color = "style='background-color: #F3F3F3'"; else unset($color);
            echo "<tr $color>
                <td align='center'>". $orderInfoListRow['OrderID'] . "</td>
                <td>". $userinfoRow['LastName'] . ", " . $userinfoRow['FirstName'] . " (ID " . $orderInfoListRow['CustomerID'] . ")</td>
                <td>". date('m/d/Y g:i a', strtotime($transactionInfo['DateTimeArrived'])) . "</td>
                <td>". toMoney(($orderInfoListRow['BasePrice'] + $orderInfoListRow['SalesTax'] + $orderInfoListRow['DeliveryCharge']), true) . "</td>
                <td align='center'><a href='/bills/" . $transactionInfo['BillNum'] . ".html' class='mainlink' target='_blank'>View Bill</a></td>
                <td align='center'><a href='/tickets/" . $transactionInfo['TicketNum'] . ".html' class='mainlink' target='_blank'>View Ticket</a></td>
                <td align='center'><a href='admin.php?page=processorders&act=modifyorder&orderID=" . $orderInfoListRow['OrderID'] . "' class='mainlink'>Modify Order</a></td>
            </tr>";
        }
        echo "</table>";
    } else if ($_GET['act'] == "modifyorder" && $_GET['orderID']) {
        if($_POST['updateorder']) {
            if($_POST['DateTimeDispatched'])
                $dateTimeDispatched = "'". date('Y-m-d H:i:s', strtotime($_POST['DateTimeDispatched'])) . "'";
            else
                $dateTimeDispatched = "NULL";
            if($_POST['DateTimeArrived'])
                $dateTimeArrived = "'". date('Y-m-d H:i:s', strtotime($_POST['DateTimeArrived'])) . "'";
            else
                $dateTimeArrived = "NULL";
            if($_POST['DateTimeReturned'])

```

```

        $dateTimeReturned = "".date('Y-m-
d H:i:s',strtotime($_POST['DateTimeReturned']))."";
    else
        $dateTimeReturned = "NULL";
    if($_POST['DateTimePaid'])
        $dateTimePaid = "".date('Y-m-
d H:i:s',strtotime($_POST['DateTimePaid']))."";
    else
        $dateTimePaid = "NULL";
    if($_POST['AmountPaid'])
        $amountPaid = "AmountPaid = '".toMoney(str_replace("
$,","",$_POST['AmountPaid']),false)."', ";
    else
        $amountPaid = "";
    $updateTransactionInfoQuery = "UPDATE TRANSACTIONS SET
    DateTimeDispatched = $dateTimeDispatched, DateTimeArrived = $dateTime
Arrived, DateTimeReturned = $dateTimeReturned, DateTimePaid = $dateTim
ePaid, $amountPaid Comments = '".mysql_real_escape_string($_POST['Comm
ents']))."' WHERE OrderID = '".$_GET['orderId']."'";
    $updateTransactionInfoResult = mysql_query($updateTran
sactionInfoQuery);
    if(mysql_error()) {
        echo "<p class='error'><strong>Error!</strong> Could
not update transaction information!<br/>MySQL Error: <u>".mysql_error
()."</u></p>";
    } else {
        if($amountPaid != "AmountPaid") {
            $userBalanceResult = mysql_query("SELECT CustomerID, Balance FROM CUSTOMERS WHERE CustomerID = (SELECT CustomerID FROM ORDERS WHERE OrderID = '".$_GET['orderId']."'");
            $userBalanceRow = mysql_fetch_assoc($userBalanceRe
sult);
            $updateAccountBalanceQuery = "UPDATE CUSTOMERS SET
            Balance = '".toMoney(($userBalanceRow['Balance'] + toMoney(str_replac
e("$","",$_POST['AmountPaid']),false)),false)."', BalanceDate = CURDAT
E() WHERE CustomerID = '". $userBalanceRow['CustomerID']."'";
            $updateAccountBalanceResult = mysql_query($updateA
ccountBalanceQuery);
            if(mysql_error()) {
                echo "<p class='error'><strong>Error!</strong> C
ould not update customer balance!<br/>MySQL Error: <u>".mysql_error().
"</u></p>";
            } else {
                echo "<p class='success'><strong>Success!</stron
g> Order transaction information has been updated.</p>";
            }
        } else {
            echo "<p class='success'><strong>Success!</strong>
Order transaction information has been updated.</p>";
        }
    }
}
echo "<div style='font-weight: bold; margin-
bottom: 10px; font-
size: 16px;'>Order # '".$_GET['orderId']. " Information</div>";
$orderInfoResult = mysql_query("SELECT * FROM ORDERS WHE
RE OrderID = '".$_GET['orderId']."'");

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        $orderInfo = mysql_fetch_assoc($orderInfoResult);
        if(!mysql_num_rows($orderInfoResult)) {
            echo "<p class='error'><strong>Error!</strong> Invalid
Order ID! Please wait to be redirected...</p><meta http-
equiv='REFRESH' content='0;url=account.php'>";
        } else {
            $userInfoResult = mysql_query("SELECT * FROM CUSTOMERS
WHERE CustomerID = '". $orderInfo['CustomerID']. "'");
            $userInfoRow = mysql_fetch_assoc($userInfoResult);
            $transactionInfoQuery = "SELECT * FROM TRANSACTIONS WH
ERE OrderID = '". $_GET['orderID']. "'";
            $transactionInfoResults = mysql_query($transactionInf
oQuery);
            $transactionInfo = mysql_fetch_assoc($transactionInfoR
esults);
            $basketItemsResult = mysql_query("SELECT * FROM BASKET
S WHERE CustomerID = '". $orderInfo['CustomerID']. "' AND BasketID = '".
$orderInfo['BasketID']. "'");
            $paymentTypeDetailsResult = mysql_query("SELECT * FROM
PAYMENT_TYPES WHERE CustomerID = '". $orderInfo['CustomerID']. "' AND P
aymentID='". $orderInfo['PaymentID']. "'");
            $driverInfoResult = mysql_query("SELECT * FROM DELIVER
Y_PEOPLE WHERE DriverID = '". $orderInfo['DriverID']. "'");
            $driverInfoRow = mysql_fetch_assoc($driverInfoResult);
            $driverInfo = $driverInfoRow['Name'] . ' (Rt. ' . $dri
verInfoRow['RouteID'] . ')';
            $paymentTypeDetailsRow = mysql_fetch_assoc($paymentTyp
eDetailsResult);
            echo "<table cellpadding='1' cellspacing='2' style='te
xt-align: left; margin-left: 75px; width: 600px;'>";
            echo "<tr><th>Item Description</th></tr>";
            if(mysql_num_rows($basketItemsResult)) {
                $basketItemsRow = mysql_fetch_assoc($basketItemsResu
lt);
                $basketItems = explode(",", $basketItemsRow['ProductA
rray']);
                $i = 0;
                foreach($basketItems as $productID) {
                    $productsResult = mysql_query("SELECT * FROM PRODU
CTS WHERE ProductID = '". $productID. "'");
                    while ($productRow = mysql_fetch_assoc($productsRe
sult)) {
                        if($i % 2) $color = "background-
color: #F3F3F3"; else unset($color);
                        echo "<tr><td style='$color'>". $productRow['Desc
ription']. "</td></tr>";
                    }
                    $i++;
                }
                if(!$basketItemsRow['ProductArray'] || trim(implode(
",", $basketItems), ",") == "")
                    echo "<tr><td colspan='2' style='text-
align: center; font-style: italic; font-
size: 11px;'>No items exist in your basket!</td></tr></table>";
                else {
                    $taxSubtotal = (0.06 * $taxableSubtotal);
                    $deliveryCost = getDeliveryCost($orderInfo['Custom

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erID']]);
        echo "<tr><td colspan='2' style='font-
weight: bold; text-
align: right'>Subtotal: ".$toMoney($orderInfo['BasePrice'],true)."</td>
</tr>";
        echo "<tr><td colspan='2' style='font-
weight: bold; text-
align: right'>Sales Tax: ".$toMoney($orderInfo['SalesTax'],true)."</td>
</tr>";
        echo "<tr><td colspan='2' style='font-
weight: bold; text-
align: right'>Delivery Fee: ".$toMoney($orderInfo['DeliveryCharge'],tru
e)."</td></tr>";
        echo "<tr><td colspan='2' style='font-
weight: bold; text-align: right; color: #861E23'><span style='border-
top: 1px solid #000'>Grand Total: ".$toMoney(($orderInfo['BasePrice'] +
$orderInfo['SalesTax'] + $orderInfo['DeliveryCharge']),true)."</span>
</td></tr>";
        echo "</table>";

        echo "<style>td { font-size: 12px; }</style>";
        echo "<table width='100%' cellpadding='0' cellspac
ing='2'><tr><td width='50%' valign='top'>";
        echo "<div style='font-weight: bold; margin-
bottom: 10px; font-size: 16px;'>Delivery Information</div>";
        echo "<table width='100%'>";
        echo "<tr>
        <td valign='top' style='text-
decoration: underline; padding-
bottom: 10px;' width='150'>Deliver To:</td>
        <td style='padding-
bottom: 10px;'>".$userinfoRow['LastName'].", ".$userinfoRow['FirstName
']. " (ID ".$userinfoRow['CustomerID'].")<br/>".$userinfoRow['AddressSt
reet']. "<br/>".$userinfoRow['AddressCity'].", ".$userinfoRow['AddressS
tate']. " ".$userinfoRow['AddressZip']. "</td>
        </tr>";
        echo "<tr>
        <td align='top' style='text-
decoration: underline; padding-bottom: 10px;'>Delivery Date:</td>
        <td style='padding-
bottom: 10px;'>".date("l, F jS",strtotime($orderInfo['DeliveryDate']))
."</select></td>
        </tr>";
        echo "<tr>
        <td align='top' style='text-
decoration: underline; padding-
bottom: 10px;'>Delivery Time Range:</td>
        <td style='padding-bottom: 10px;'>";
        echo "<input type='hidden' name='DeliveryTim
eRange24' id='DeliveryTimeRange24' value='";
        if($orderInfo['DeliveryTimeRange'] == '9am
- 1pm') echo "09";
        if($orderInfo['DeliveryTimeRange'] == '1pm
- 5pm') echo "13";
        if($orderInfo['DeliveryTimeRange'] == '5pm
- 9pm') echo "17";
        echo "'/>";

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        echo $orderIdInfo['DeliveryTimeRange']. "</td>
    </tr>";
    echo "<tr>";
    if($transactionInfo['DateTimeArrived']) {
        echo "<td valign='top' style='text-
decoration: underline;' width='150'>Delivery Date/Time:</td>
        <td>".date('m/d/Y g:i a', strtotime($t
ransactionInfo['DateTimeArrived'])). "</td>";
    } else {
        echo "<td valign='top' style='text-
decoration: underline;' width='150'>Estimated Arrival:</td>";
        $addresses = array("38.98989,-76.936226");
        $existingOrdersQuery = "SELECT * FROM ORDE
RS WHERE DeliveryDate = '". $orderIdInfo['DeliveryDate']."' AND DeliveryT
imeRange = '". $orderIdInfo['DeliveryTimeRange']."' AND DriverID = '". $or
derInfo['DriverID']."' ORDER BY OrderID";
        $existingOrdersResult = mysql_query($exist
ingOrdersQuery);
        while ($existingOrdersRow = mysql_fetch_as
soc($existingOrdersResult)) {
            $userInfoResult = mysql_query("SELECT *
FROM CUSTOMERS WHERE CustomerID = '". $existingOrdersRow['CustomerID']".
"'");
            $userInfoRow = mysql_fetch_assoc($userin
foResult);
            $addresses[] = $userInfoRow['AddressStre
et'] . ", " . $userInfoRow['AddressCity'] . " " . $userInfoRow['Addres
sState'] . ", " . $userInfoRow['AddressZip'];
        }
        echo "<input type='hidden' name='DeliveryE
stimate' id='DeliveryEstimate' /><input type='hidden' name='DeliveryTi
meRange' id='DeliveryTimeRange' value='". $orderIdInfo['DeliveryTimeRange
']. "' />
        <script src='http://maps.google.com/maps
?file=api&v=2&key=ABQIAAAAt43nl5iO60aoU-bD-
8O2SxQZrun2bISZn4KqMWt44f5Suk1G-xTVx44HD-
4ofbG2GGaPJOnEAUvtOg' type='text/javascript'></script>
        <script type='text/javascript' src='/js/
BpTspSolver.js'></script>
        <script type='text/javascript' src='/js/
tsp.js'></script>
        <script type='text/javascript' src='/js/
date.format.js'></script>
        <script type='text/javascript'>
        function init() {
            isDone = false;
            loadAtStart(37.4419, -122.1419, 8);
            addList('".implode("\n", $addresses). "
');
            directions(0,0,0);
        }
        </script>
        <div id='map' style='display: none;'> </
div>
        <div id='exportData' style='display: non
e;'></div>
        <div id='durationsData' style='display:

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none;'></div>
                                <div id='ordering' style='display: none;
'></div>
                                <div id='my_textual_div' style='display:
none;'></div> ";
                                echo "<td id='path'>Loading...</td>";
                                }
                                echo "</tr>";
                                echo "</table>";
                                echo "</td><td width='50%' valign='top'>";
                                echo "<div style='font-weight: bold; margin-
bottom: 10px; font-size: 16px;'>Billing Information</div>";
                                echo "<table width='100%'>";
                                echo "<tr>
                                <td align='top' style='text-
decoration: underline; padding-
bottom: 10px;' width='150'>Payment Method:</td>
                                <td style='padding-bottom: 10px;'>";
                                if($paymentTypeDetailsRow['PaymentType'] =
= 'Credit Card')
                                    echo $paymentTypeDetailsRow['PaymentType
']. " (" . substr($paymentTypeDetailsRow['PaymentInfo'], -4) . ") ";
                                else
                                    echo $paymentTypeDetailsRow['PaymentType
']. " (" . toMoney($paymentTypeDetailsRow['PaymentInfo'], true) . ") ";
                                echo "</td>
                                </tr>";
                                if($transactionInfo['DateTimePaid']) {
                                    echo "<tr><td align='top' style='text-
decoration: underline; padding-
bottom: 10px;'>Payment Recieved:</td><td style='padding-
bottom: 10px;'>".toMoney($transactionInfo['AmountPaid'], true) . " on "
. date('m/d/y g:i a', strtotime($transactionInfo['DateTimePaid'])) . "</
td></tr>";
                                } else {
                                    echo "<tr><td align='top' style='text-
decoration: underline; padding-
bottom: 10px;'>Payment Recieved:</td><td style='padding-
bottom: 10px;'>$0.00</td></tr>";
                                }
                                echo "<tr><td align='top' style='text-
decoration: underline; padding-
bottom: 10px;'>View Bill:</td><td style='padding-
bottom: 10px;'><a href='/bills/' . $transactionInfo['BillNum'] . '.html' t
arget='_blank' class='mainlink'>View Bill</a></td></tr>";
                                echo "<tr><td align='top' style='text-
decoration: underline;'>View Ticket:</td><td><a href='/tickets/' . $tran
sactionInfo['TicketNum'] . '.html' target='_blank' class='mainlink'>View
Dispatch Ticket</a></td></tr>";
                                echo "</table>";
                                echo "</tr></table><br/>";
                                echo "<div style='font-weight: bold; margin-
bottom: 10px; font-size: 16px;'>Transaction Information</div>";
                                echo "<form method='post'>";
                                echo "<table width='100%'>";
                                echo "<tr>";
                                echo "<td style='text-

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decoration: underline;' width='150'>Driver:</td><td>$driverInfo</td>";
    echo "<td style='text-
decoration: underline;' width='150'>Date/Time Dispatched:</td><td><inp
ut type='text' name='DateTimeDispatched' style='width: 145px' value='\"
.($transactionInfo['DateTimeDispatched'])?date('m/d/Y g:i a', strtotime
($transactionInfo['DateTimeDispatched'])):\"").\"' /></td>";
    echo "</tr>";
    echo "<tr>";
    echo "<td style='text-
decoration: underline;'>Date/Time Arrived:</td><td><input type='text'
name='DateTimeArrived' style='width: 145px' value='\".($transactionInfo
['DateTimeArrived'])?date('m/d/Y g:i a', strtotime($transactionInfo['Da
teTimeArrived'])):\"").\"' /></td>";
    echo "<td style='text-
decoration: underline;'>Date/Time Returned:</td><td><input type='text'
name='DateTimeReturned' style='width: 145px' value='\".($transactionIn
fo['DateTimeReturned'])?date('m/d/Y g:i a', strtotime($transactionInfo[
'DateTimeReturned'])):\"").\"' /></td>";
    echo "</tr>";
    echo "<td style='text-
decoration: underline;'>Date/Time Paid:</td><td><input type='text' nam
e='DateTimePaid' style='width: 145px' value='\".($transactionInfo['Date
TimePaid'])?date('m/d/Y g:i a', strtotime($transactionInfo['DateTimePai
d'])):\"").\"' /></td>";
    echo "<td style='text-
decoration: underline;'>Amount Paid:</td><td><input type='text' name='
AmountPaid' style='width: 145px' \".($transactionInfo['AmountPaid'])?\"di
sabled='true'\".\"\" value='\".($transactionInfo['AmountPaid'])?toMoney(
$transactionInfo['AmountPaid'],false):\"").\"' /></td>";
    echo "</tr>";
    echo "</tr>";
    echo "<td style='text-
decoration: underline;' valign='top'>Comments:</td><td colspan='3'><te
xtarea name='Comments' style='width: 513px' rows='3'>\".$transactionInf
o['Comments'].\"</textarea></td>";
    echo "</tr>";
    echo "<tr><td colspan='4' align='center'><input
type='submit' name='updateorder' value='Update Transaction Information
' style='margin-top: 10px;' /></td></tr>";
    echo "</table>";
    echo "</form>";
}
}
}
}
} else if($_GET['page'] == "reports") {
    if(!$_GET['report']) {
        echo "<h2 class='h2'>Reports</h2>";
        echo "<p>
        <ul>
            <li><a href='admin.php?page=reports&report=ABVR'>A
verage Basket Value Report</a></li>
            <li><a href='admin.php?page=reports&report=BWSR'>B
est/Worst Seller Report</a></li>
            <li><a href='admin.php?page=reports&report=DR'>Del
inquency Report</a></li>
        </ul>

```

```

        </p>";
    } else if($_GET['report'] == "ABVR") {
        echo "<h2 class='h2'>Average Basket Value Report</h2>";
        echo "<script language='javascript' src='/includes/fusioncharts/FusionCharts.js'></script>";
        echo "<div id='chart'>&nbsp;  </div>";
        echo "<script type='text/javascript'>
            var chart2 = new FusionCharts('/includes/fusioncharts/FCF_MSLine.swf', 'ChId1', '700', '400');
            chart2.setDataURL('/report_data.php?report=ABVR');
            chart2.render('chart');
        </script>";
    } else if($_GET['report'] == "BWSR") {
        echo "<h2 class='h2'>Best/Worst Seller Report</h2>";
        if($_POST['setOnSale']) {
            $randomSaleAmount = rand(5,15) * 0.01; // Pick a random sale amount from 5-15% off
            $updateQuery = "UPDATE PRODUCTS SET SaleStatus = 1, SalePrice = '".toMoney(($_POST['updatePrice'] -
            ($_POST['updatePrice'] * $randomSaleAmount)),true)."' WHERE ProductID = '". $_POST['updateID'] ."'";
            mysql_query($updateQuery);
            if(mysql_error())
                echo "<p class='error'><strong>Error!</strong> Could not update product information!<br/>MySQL Error: <u>".mysql_error()."</u></p>";
            else
                echo "<p class='success'><strong>Success!</strong> ". $_POST['updateName'] ."'s have been placed on sale for <u>".toMoney(($_POST['updatePrice'] -
            ($_POST['updatePrice'] * $randomSaleAmount)),false)."</u>.</p>";
        } else if ($_POST['deleteItem']) {
            echo "<p class='warning'><strong>Warning!</strong> Not implemented.</p>";
        }
        echo "<style>td { font-size: 12px; }</style>";
        $topProductsQuery = "SELECT ProductID, Description, (SELECT CATEGORY FROM PRODUCT_CATEGORIES WHERE CATEGORY_IDX = cat) AS Category, (SELECT CATEGORY FROM PRODUCT_SUB_CATEGORIES WHERE CATEGORY_IDX = cat AND SUB_CATEGORY_IDX = subcat) AS SubCategory, (SELECT COUNT(BasketID) FROM BASKETS WHERE ProductArray LIKE ProductID) AS Sales, Price, SaleStatus FROM PRODUCTS ORDER BY Sales DESC LIMIT 0,10";
        $topProductsResult = mysql_query($topProductsQuery);
        echo "<div style='font-weight: bold; margin-bottom: 10px; font-size: 16px;'>Best Selling Products</div>";
        echo "<table cellpadding='5' cellspacing='2' class='outstandingOrders'>";
        echo "<tr><th align='center'>Product</th><th align='center'>Price</th><th align='center'>Sales</th></tr>";
        while($topProducts = mysql_fetch_assoc($topProductsResult)) {
            if($i++ % 2) $color = "style='background-color: #F3F3F3'"; else unset($color);
            echo "<tr $color>";
            echo "<td>". $topProducts['Description'] . "<br/><span style='font-style: italic; font-size: 11px;'>(" . $topProducts['Category'] . " -

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```

".$stopProducts['SubCategory'].")</span></td>";
        echo "<td align='right'>".$stopProducts['Price'],true)."</td>";
        echo "<td align='center'>".$stopProducts['Sales']. "</td>";
    }
    echo "</tr>";
}
echo "</table>";
$worstProductsQuery = "SELECT ProductID, Description, (SELECT CATEGORY FROM PRODUCT_CATEGORIES WHERE CATEGORY_IDX = cat) AS Category, (SELECT CATEGORY FROM PRODUCT_SUB_CATEGORIES WHERE CATEGORY_IDX = cat AND SUB_CATEGORY_IDX = subcat) AS SubCategory, (SELECT COUNT(BasketID) FROM BASKETS WHERE ProductArray LIKE ProductID) AS Sales, Price, SaleStatus FROM PRODUCTS ORDER BY Sales LIMIT 0,10";
$worstProductsResult = mysql_query($worstProductsQuery);
echo "<div style='font-weight: bold; margin-bottom: 10px; margin-top: 20px; font-size: 16px;'>Worst Selling Products</div>";
echo "<table cellpadding='5' cellspacing='2' class='outstandingOrders'>";
echo "<tr><th align='center'>Product</th><th align='center'>Price</th><th align='center'>Sales</th><th align='center'>Action</th></tr>";
while($worstProducts = mysql_fetch_assoc($worstProductsResult)) {
    if($i++ % 2) $color = "style='background-color: #F3F3F3'"; else unset($color);
    echo "<tr $color>";
    echo "<td>".$worstProducts['Description']. "<br/><span style='font-style: italic; font-size: 11px;'>(".$worstProducts['Category']. " - ".$worstProducts['SubCategory'].")</span></td>";
    echo "<td align='right'>".$worstProducts['Price'],true). "</td>";
    echo "<td align='center'>".$worstProducts['Sales']. "</td>";
    echo "<td align='center'>
        <form method='post'>
            <input type='hidden' name='updateID' value='".$worstProducts['ProductID']."'>
            <input type='hidden' name='updatePrice' value='".$worstProducts['Price']."'>
            <input type='hidden' name='updateName' value='".$worstProducts['Description']."'>
            <input type='submit' name='setOnSale' value='Set On Sale'><br/>
            <input type='submit' name='deleteItem' value='Remove Product'>
        </form>
    </td>";
    echo "</tr>";
}
echo "</table>";
} else if($_GET['report'] == "DR") {
    echo "<h2 class='h2'>Delinquency Report</h2>";
    $balanceAmountThreshold = 25; $balanceDateThreshold = date('Y-m-d', time() - (7 * 24 * 60 * 60));

```

```

        echo "<p>Delinquent Customers are customers who have an
account balance exceeding ".toMoney($balanceAmountThreshold)." since "
.date('m/d/y',strtotime($balanceDateThreshold))." or earlier. A delinq
uency notice has been emailed to each customer and their account has b
een deactivated.</p>";
        $delinquentCustomerQuery = "SELECT * FROM CUSTOMERS WHERE
Active = 'Y' AND Balance < $balanceAmountThreshold AND BalanceDate <
= '$balanceDateThreshold' ORDER BY LastName, FirstName;";
        $delinquentCustomerResult = mysql_query($delinquentCusto
merQuery);
        echo "<table cellpadding='5' cellspacing='2' class='outs
tandingOrders'>";
        echo "<tr><th align='center'>Customer ID</th><th>Custome
r Name</th><th>Balance</th><th>Delinquent Since</th></tr>";
        if(!mysql_num_rows($delinquentCustomerResult))
            echo "<tr><td colspan='4' align='center'><i>No Delinqu
ent Customers Found</i></td></tr>";
        while($delinquentCustomer = mysql_fetch_assoc($delinquen
tCustomerResult)) {
            echo "<tr>";
            echo "<td align='center'>".$delinquentCustomer['Cust
omerID'].</td>";
            echo "<td>".$delinquentCustomer['LastName'].", ".$de
linquentCustomer['FirstName'].</td>";
            echo "<td>".toMoney($delinquentCustomer['Balance'],t
rue).</td>";
            echo "<td>".($delinquentCustomer['BalanceDate']?date
('m/d/y',strtotime($delinquentCustomer['BalanceDate'])):"always").</td>";

            echo "</tr>";

            // Disable customer in the database
            //mysql_query("UPDATE CUSTOMERS SET Active = 'N' WHERE
CustomerID = '".$delinquentCustomer['CustomerID']."'");

            // Message the customer delinquency notice
            messageCustomer($delinquentCustomer['CustomerID'], "Att
ention " . $delinquentCustomer['FirstName'] . " " . $delinquentCustome
r['LastName'] . ",\nYour eGroceries has been deactivated due to an ous
tanding balance of ".toMoney($delinquentCustomer['Balance'],true)." si
nce ".$delinquentCustomer['BalanceDate']?date('m/d/y',strtotime($deli
nquentCustomer['BalanceDate'])):"always").". Please contact an admini
strator to reactivate your account.");
        }
        echo "</table>";
    } else {
        echo "<p class='error'><strong>Error!</strong> Invalid r
eport! Please wait to be redirected...</p><meta http-
equiv='REFRESH' content='0;url=admin.php?page=reports'>";
    }
    } else {
        echo "<p class='error'><strong>Error!</strong> Invalid adm
in page! Please wait to be redirected...</p><meta http-
equiv='REFRESH' content='0;url=admin.php'>";
    }
}
?>

```

```

        </div>
        <div id="footer">
            <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/footer.inc.php'); ?>
        </div>
    </div>
</body>
</html>

```

Basket Management (basket.php)

```

<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
        <title>eGroceries</title>
        <link rel="stylesheet" href="/styles/main.css" type="text/css">
    </head>
    <body>
        <div id="frame">
            <div id="header">
                <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/header.inc.php'); ?>
            </div>
            <div id="nav">
                <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/nav.inc.php'); ?>
            </div>
            <div id="content">
                <h1>View Basket</h1>
                <?php
                    if(!$_SESSION['userinfo']) {
                        echo "<p class='error'><strong>Error!</strong> You are not logged in! Please wait to be redirected...</p><meta http-equiv='REFRESH' content='0;url=signin.php'>";
                    } else {
                        $basketItemsResult = mysql_query("SELECT * FROM BASKETS WHERE CustomerID = '".$_SESSION['userinfo']['CustomerID']."' AND Active = '1'");
                        if(mysql_num_rows($basketItemsResult)) {
                            $basketItemsRow = mysql_fetch_assoc($basketItemsResult);
                            $basketItems = explode(",", $basketItemsRow['ProductArray']);

                            if($_POST['productToRemove']) {
                                foreach($basketItems as $key => $value) {
                                    if($value == $_POST['productToRemove']) {
                                        unset($basketItems[$key]);
                                        break;
                                    }
                                }
                                $updateBasketItemsResult = mysql_query("UPDATE BASKETS

```

```

SET ProductArray = '".trim(implode(",", $basketItems), ",")."', LastMod
ified = NOW() WHERE CustomerID = '".$_SESSION['userinfo']['CustomerID'
].'" AND Active = '1';");
    echo "<p class='success'><strong>Success!</strong> The
product \"'".$_$_POST['productToRemoveDescription'].\"" has been removed
from your basket.</p>";
    }
    $i = 0; $subtotal = 0;
    echo "<table cellpadding='1'>";
    echo "<tr><th colspan='2'>Item Description</th><th colsp
an='2' align='center'>Price</th></tr>";
    foreach($basketItems as $productID) {
        $i++;
        $productsResult = mysql_query("SELECT * FROM PRODUCTS
WHERE ProductID = '".$_$productID.'"");
        while ($productRow = mysql_fetch_assoc($productsResult
)) {
            echo "<tr>";
            $image = "http://shop.safeway.com/productimages/100x
100/\"".$_$productRow['ProductID'].\"_100x100.jpg";
            if(@GetImageSize($image)) // Display product image f
rom Safeway's site if exists, otherwise missing image
                $productImage = $image;
            else
                $productImage = "/gr/missingProduct.jpg";
            echo "<td width='100'><img src='\"$productImage' /></t
d>";

            if($productRow['Manufacturer'])
                $manufacturer = $productRow['Manufacturer'];
            else
                $manufacturer = "Not Available";
            echo "<td>".$_$productRow['Description'].<br/><span s
tyle='font-style: italic; font-
size: 12px'>Manufacturer: $manufacturer</span></td>";
            if($productRow['Stock'] > 0) {
                if($productRow['SaleStatus']) {
                    echo "<td width='60'>
                        <span style='text-decoration: line-
through'>\"".$_$productRow['Price'].\"</span><br/>
                        <span style='color: #FF8F20; font-
weight: bold'>SALE!<br/>\"".$_$productRow['SalePrice'].\"</span>
                        </td>";
                    $subtotal = $subtotal + $productRow['SalePrice']
;
                } else {
                    echo "<td width='60'>\"".$_$productRow['Price'].\"</
td>";

                    $subtotal = $subtotal + $productRow['Price'];
                }
            } else {
                echo "<td width='60' style='text-decoration: line-
through; color: #CE5C62'>Out of<br/>Stock</td>";
            }
            echo "<td width='90' style='text-align: center'>
                <form name='form".$_$productRow['ProductID'].\"_$_i'
method='post'>
                    <input type='hidden' name='productToRemove' va

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```

        lue="'. $productRow['ProductID']. '"/>
            <input type='hidden' name='productToRemoveDescription' value="'. $productRow['Description']. '"/>
            <a href='javascript:document.form". $productRow['ProductID']. "_$i.submit()' class='basketlink'>Remove<br/>from Basket
        </a>

        </form>
        </td>";
        echo "</tr>";
    }
}
if(!$basketItemsRow['ProductArray'] || trim(implode(", ",
$basketItems), ", ") == "")
    echo "<tr><td colspan='4' style='text-align: center; font-style: italic; font-size: 11px;'>No items exist in your basket!</td></tr>";
else {
    echo "<tr><td colspan='2'>&nbsp;  </td><td colspan='2' style='font-weight: bold;'>Subtotal: ".toMoney($subtotal,true). "</td></tr>";
    echo "<tr><td colspan='4' style='text-align: center;'><input type='button' name='checkout' value='Checkout Now' onClick=\"window.location='checkout.php'\"/></td></tr>";
}
echo "</table>";
} else {
    echo "<div class='warning'><strong>Warning!</strong> No items exist in your basket!</div>";
}
}
?>
</div>
<div id="footer">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/footer.inc.php'); ?>
</div>
</div>
</body>
</html>

```

Customer Change Password Page (changepass.php)

```

<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
        <title>eGroceries</title>
        <link rel="stylesheet" href="/styles/main.css" type="text/css">
    </head>
    <body>
        <div id="frame">

```

```

<div id="header">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/header.inc.php'); ?>
</div>
<div id="nav">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egrocer
ies/includes/nav.inc.php'); ?>
</div>
<div id="content">
<h1>My eGroceries Account - Change Password</h1>
<?php
    if(!$_SESSION['userinfo']) {
        echo "<p class='error'><strong>Error!</strong> You are not l
ogged in! Please wait to be redirected...</p><meta http-
equiv='REFRESH' content='0;url=signin.php'>";
    } else {
        $validCurrPW = true;
        $confirmMatch = false;
        $notBlank = false;

        if($_POST['changePW'])
        {
            if(!$_POST['CurrentPW'])
                $validCurrPW = false;
            else if($_SESSION['userinfo']['Password'] != md5($_POST['C
urrentPW']))
                $validCurrPW = false;

            if($_POST['NewPW'] == $_POST['ConfirmPW'])
                $confirmMatch = true;

            if(strlen($_POST['NewPW']) > 0)
                $notBlank = true;

            if($validCurrPW && $confirmMatch && $notBlank)
            {
                $updateQuery = "UPDATE CUSTOMERS SET Password = '".md5($
_POST['NewPW'])."' WHERE CustomerID = '".$_SESSION['userinfo']['Custom
erID']."'";
                $updateResult = mysql_query($updateQuery);
                if(mysql_error())
                    echo "<p class='error'><strong>Error!</strong> MySQL E
rror: <u>".mysql_error()."</u></p>";
                else
                    echo "<p class='success'><strong>Success!</strong> You
r password has been updated.</p>";
            }

            else
            {
                if (!$validCurrPW)
                    echo "<p class='error' style='width: 455px'><strong>Er
ror!</strong> Your current password does not match our records.</p>";
                else if (!$confirmMatch)
                    echo "<p class='error' style='width: 455px'><strong>Er
ror!</strong> Confirmation does not match new password.</p>";
            }
        }
    }
}

```

```

        else if (!$notBlank)
            echo "<p class='error' style='width: 455px'><strong>Error!</strong> You must enter a new password.</p>";
        }
    }
}
?>

<form method="POST" style="width: 425px">
    <h2 class='h2'>Password Information</h2>
    <table style="width: 425px">
        <tr>
            <td style="font-weight: bold">Current Password</td>
            <td><input type="password" name="CurrentPW" size="30" value="" /></td>
        </tr>
        <tr>
            <td style="font-weight: bold">New Password</td>
            <td><input type="password" name="NewPW" size="30" value="" /></td>
        </tr>
        <tr>
            <td style="font-weight: bold">Confirm New Password</td>
            <td><input type="password" name="ConfirmPW" size="30" value="" /></td>
        </tr>
        <tr>
            <td colspan="2" align="center">&nbsp;</td>
        </tr>
        <tr>
            <td colspan="2" align="center"><input type="submit" name="changePW" value="Submit" /></td>
        </tr>
    </table>
</form>

</div>
<div id="footer">
    <?php include('kunden/homepages/25/d123903211/htdocs/egroceries/includes/footer.inc.php'); ?>
</div>
</div>
</body>
</html>

```

Checkout Page (checkout.php)

```
<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

```

<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-
8" />
    <title>eGroceries</title>
    <link rel="stylesheet" href="/styles/main.css" type="text/css">
  </head>
  <body onload='init()' onunload='GUnload() '>
    <div id="frame">
      <div id="header">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/header.inc.php'); ?>
      </div>
      <div id="nav">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/nav.inc.php'); ?>
      </div>
      <div id="content">
        <h1>Checkout</h1>
        <?php
          if(!$_SESSION['userinfo']) {
            echo "<p class='error'><strong>Error!</strong> You are not
logged in! Please wait to be redirected...</p><meta http-
equiv='REFRESH' content='0;url=signin.php'>";
          } elseif($_SESSION['userinfo']['Active'] == "N") {
            echo "<p class='error' style='margin-
top: 150px;'><strong>Error!</strong> Your account has been labeled In
active and is not able to order any food at this time.<br/>Please cont
act an administrator to rectify your situation, and then visit your <a
href='account_status.php'>Account Status</a> page to Reactivate your
account.</p>";
          } else {
            $paymentTypesResult = mysql_query("SELECT * FROM PAYMENT_T
YPES WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']."'");
            if(mysql_num_rows($paymentTypesResult) === 0) {
              echo "<p class='error'><strong>Error!</strong> You do no
t have any Payment Methods associated with this account!<br/>Please go
to <a href='paymentmethods.php'>Payment Methods</a> and add one befor
e attempting to checkout.</p>";
            } else {
              if($_POST['checkout']) {
                // Do actual order submission here
                $paymentTypeDetailsResult = mysql_query("SELECT * FROM
PAYMENT_TYPES WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID
']."' AND PaymentID='". $_POST['PaymentID']."'");
                $paymentTypeDetailsRow = mysql_fetch_assoc($paymentTyp
eDetailsResult);
                if($paymentTypeDetailsRow['PaymentType'] == "Checking
Account" && ($paymentTypeDetailsRow['PaymentInfo'] < ($_SESSION['useri
nfo']['Balance'] + ($_POST['subtotal'] + $_POST['taxSubtotal'] + $_POS
T['deliveryCost'])))) {
                  echo "<p class='error'><strong>Error!</strong> If yo
u purchase this basket, your Account Balance will exceed your Checking
Accounts Balance.<br/>Please go <a href='javascript:history.go(-
1)'>back</a> and select a different Payment Method.</p>";
                } else {
                  // Create Order

```

```

        $insertOrderQuery = "INSERT INTO ORDERS (CustomerID,
        BasketID, PaymentID, DeliveryDate, DeliveryTimeRange, DriverID, BaseP
        rice, SalesTax, DeliveryCharge) VALUES ('".$_SESSION['userinfo']['Cust
        omerID']."', '".$_POST['BasketID']."', '".$_POST['PaymentID']."', '".$_$
        _POST['DeliveryDate']."', '".$_POST['DeliveryTimeRange']."', '".$_POST
        ['driverID']."', '".$_POST['subtotal']."', '".$_POST['taxSubtotal']."'
        , '".$_POST['deliveryCost']."'");";
        $insertOrderResult = mysql_query($insertOrderQuery);
        if(mysql_error())
            echo "<p class='error'><strong>Error!</strong> Cou
            ld not create order!<br/>MySQL Error: <u>".mysql_error()."</u></p>";
        else {
            $newOrderID = mysql_insert_id();
            $getTicketBillNumsResult = mysql_query("SELECT MAX
            (TicketNum) AS TicketNum, MAX(BillNum) AS BillNum FROM TRANSACTIONS");
            if(mysql_error()) {
                echo "<p class='error'><strong>Error!</strong> C
                ould not get new Ticket and Bill Numbers!<br/>MySQL Error: <u>".mysql_
                error()."</u></p>";
                $undoInsertOrderQuery = "DELETE FROM ORDERS WHER
                E OrderID = '$newOrderID'";";
                $undoInsertOrderResult = mysql_query($undoInsert
                OrderQuery);
            } else {
                $ticketBillNums = mysql_fetch_assoc($getTicketBi
                llNumsResult);

                // Create Dispatch Ticket
                $newTicketNum = $ticketBillNums['TicketNum'] + 1
                ;

                makeTicket($newOrderID, $newTicketNum);

                // Create Bill
                $newBillNum = $ticketBillNums['BillNum'] + 1;
                makeBill($newOrderID, $newBillNum);

                // Create Transaction Info
                $insertTransactionInfoQuery = "INSERT INTO TRANS
                ACTIONS (OrderID, TicketNum, BillNum, DateTimeOrdered) VALUES ('".$new
                OrderID."', '".$_$newTicketNum."', '".$_$newBillNum."', NOW());";
                $insertTransactionInfoResult = mysql_query($inse
                rtTransactionInfoQuery);
                if(mysql_error()) {
                    echo "<p class='error'><strong>Error!</strong>
                    Could not create transaction information!<br/>MySQL Error: <u>".mysql
                    _error()."</u></p>";
                    $undoInsertOrderQuery = "DELETE FROM ORDERS WH
                    ERE OrderID = '$newOrderID'";";
                    $undoInsertOrderResult = mysql_query($undoInse
                    rtOrderQuery);
                } else {
                    // Update Account Balance
                    $updateAccountBalanceQuery = "UPDATE CUSTOMERS
                    SET Balance = '".$_toMoney(($_SESSION['userinfo']['Balance'] -
                    ($_POST['subtotal'] + $_POST['taxSubtotal'] + $_POST['deliveryCost']))
                    ),false)."', BalanceDate = CURDATE() WHERE CustomerID = '".$_$_SESSION['
                    userinfo']['CustomerID']."'";";

```

```

        $updateAccountBalanceResult = mysql_query($updateAccountBalanceQuery);

        // Update Basket Info
        $updateBasketInfoQuery = "UPDATE BASKETS SET Active = 0, LastModified = NOW() WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']."' AND BasketID = '". $_POST['BasketID']."'";
        $updateBasketInfoResult = mysql_query($updateBasketInfoQuery);

        // Update Product Stock
        $basketItemsResult = mysql_query("SELECT * FROM BASKETS WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']."' AND BasketID = '". $_POST['BasketID']."'");
        $basketItemsRow = mysql_fetch_assoc($basketItemsResult);
        $basketItems = explode(",", $basketItemsRow['ProductArray']);

        foreach($basketItems as $basketItemID)
            $updateProductStockResult = mysql_query("UPDATE PRODUCTS SET Stock = (Stock - 1) WHERE ProductID = '$basketItemID'");

        echo "<p class='success'><strong>Success!</strong> Your order has been placed! Please wait to be redirected...</p><meta http-equiv='REFRESH' content='0;url=pastorders.php?orderId=$newOrderID'>";
    }
}
} else {
    $basketItemsResult = mysql_query("SELECT * FROM BASKETS WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']."' AND Active = '1'");
    if(mysql_num_rows($basketItemsResult)) {
        $basketItemsRow = mysql_fetch_assoc($basketItemsResult);
        $basketItems = explode(",", $basketItemsRow['ProductArray']);

        $futureStockAdj = array(); $outOfStock = array();
        foreach($basketItems as $key => $thisProductID) {
            $productInfoResult = mysql_query("SELECT * FROM PRODUCTS WHERE ProductID = '$thisProductID'");
            $productInfoRow = mysql_fetch_assoc($productInfoResult);

            if(!$futureStockAdj[$thisProductID])
                $futureStockAdj[$thisProductID] = $futureStock = $productInfoRow['Stock'] - 1;
            else
                $futureStockAdj[$thisProductID] = $futureStock = $futureStockAdj[$thisProductID] - 1;
            if($futureStock < 0) {
                $outOfStock[] = $thisProductID;
                $futureStockAdj[$thisProductID] = $futureStockAdj[$thisProductID] + 1;
            }
            unset($basketItems[$key]);
        }
    }
}
}

```

```

        echo "<p class='warning'><strong>Warning!</strong> The product \"<a href='shop.php?cat=\".$productInfoRow['cat'].\"&subcat=\".$productInfoRow['subcat'].\"#\".$productInfoRow['ProductID'].\"' target='_blank'>\".$productInfoRow['Description'].\"</a>\" is out of stock and has been removed from your basket.</p>";
    }
}
if (count($outOfStock)) {
    $updateBasketItemsResult = mysql_query("UPDATE BASKETS SET ProductArray = '".trim(implode(",",$basketItems))."', LastModified = NOW() WHERE CustomerID = '".$_SESSION['userinfo']['CustomerID']."' AND Active = '1'");
}
$i = 0; $subtotal = 0; $taxableSubtotal = 0;
if(count($basketItems)) {
    echo "<h2 class='h2'>Basket Information</h2>";
    echo "<table cellpadding='1' cellspacing='2' style='text-align: left; margin-left: 75px; width: 600px;'>";
    echo "<tr><th colspan='1'>Item Description</th><th colspan='1' align='center'>Price</th></tr>";
    foreach($basketItems as $productID) {
        $productsResult = mysql_query("SELECT * FROM PRODUCTS WHERE ProductID = '". $productID."'");
        $productRow = mysql_fetch_assoc($productsResult);
        ;
        if($i % 2) $color = "background-color: #F3F3F3"; else unset($color);
        echo "<tr>";
        echo "<td style='$color'>".$productRow['Description'].</td>";
        if($productRow['Stock'] > 0) {
            if($productRow['SaleStatus']) {
                echo "<td width='60' align='right' style='$color'>\".$productRow['SalePrice'].</td>";
                $subtotal = $subtotal + $productRow['SalePrice'];
                if($productRow['Taxable']) {
                    $taxableSubtotal = $taxableSubtotal + $productRow['SalePrice'];
                }
            } else {
                echo "<td width='60' align='right' style='$color'>\".$productRow['Price'].</td>";
                $subtotal = $subtotal + $productRow['Price'];
            }
            if($productRow['Taxable']) {
                $taxableSubtotal = $taxableSubtotal + $productRow['Price'];
            }
        } else {
            echo "<td width='60' style='text-align: right; text-decoration: line-through; color: #CE5C62; $color'>Out of Stock</td>";
        }
        echo "</tr>";
        $i++;
    }
}

```

```

    }

    $taxSubtotal = (0.06 * $taxableSubtotal);
    $deliveryCost = getDeliveryCost($_SESSION['userinfo']
o']['CustomerID']);
    echo "<tr><td colspan='2' style='font-
weight: bold; text-
align: right'>Subtotal: ".$toMoney($subtotal,true)."</td></tr>";
    echo "<tr><td colspan='2' style='font-
weight: bold; text-
align: right'>Sales Tax: ".$toMoney($taxSubtotal,true)."</td></tr>";
    echo "<tr><td colspan='2' style='font-
weight: bold; text-
align: right'>Delivery Fee: ".$toMoney($deliveryCost,true)."</td></tr>"
;
    echo "<tr><td colspan='2' style='font-
weight: bold; text-align: right; color: #861E23'><span style='border-
top: 1px solid #000'>Grand Total: ".$toMoney(($subtotal + $taxSubtotal
+ $deliveryCost),true)."</span></td></tr>";
    echo "</table>";

    echo "<script>
        function changeDateTimeRange() {
            if(document.getElementById('DeliveryTimeRang
e'))
                window.location = 'checkout.php?dDate=' +
document.getElementById('DeliveryDate').value + '&dTime=' + document.g
etElementById('DeliveryTimeRange').value + '&pID=' + document.getEleme
ntById('PaymentID').value;
            else
                window.location = 'checkout.php?dDate=' +
document.getElementById('DeliveryDate').value + '&pID=' + document.get
ElementById('PaymentID').value;
        }
    </script>";
    echo "<form method='post'>";
    echo "<input type='hidden' name='BasketID' value='
".$basketItemsRow['BasketID']."' />";
    echo "<input type='hidden' name='subtotal' value='
".$toMoney($subtotal,false)."' />";
    echo "<input type='hidden' name='taxSubtotal' valu
e='".$toMoney($taxSubtotal,false)."' />";
    echo "<input type='hidden' name='deliveryCost' val
ue='".$toMoney($deliveryCost,false)."' />";
    echo "<h2 class='h2'>Delivery Information</h2>";
    echo "<table width='100%'>";
    echo "<tr>
        <td valign='top' style='font-
weight: bold; padding-bottom: 10px;' width='175'>Deliver To:</td>
        <td style='padding-
bottom: 10px;'>".$_SESSION['userinfo']['AddressStreet'].<br/>".$_SESS
ION['userinfo']['AddressCity'].", ".$_SESSION['userinfo']['AddressStat
e'].", ".$_SESSION['userinfo']['AddressZip'].<br/><a href='account.php
' class='mainlink' style='font-
size: 11px'>(Edit this address)</a></td>
    </tr>";
    echo "<tr>

```

```

        <td align='top' style='font-
weight: bold; padding-bottom: 10px;'>Delivery Date:</td>
        <td style='padding-bottom: 10px;'>
            <select name='DeliveryDate' id='DeliveryDa
te' onChange='javascript:changeDateTimeRange()'><option value=''></opt
ion>";
                for($i=0; $i<=7; $i++) {
                    echo "<option value='".date("Y-m-
d",time() + ($i * 24 * 60 * 60))."' " . ($_GET['dDate']==date("Y-m-
d",time() + ($i * 24 * 60 * 60))?"selected='selected'":"").">".date("l
, F jS",time() + ($i * 24 * 60 * 60))."</option>";
                }
            echo "</select></td>
        </tr>";
        echo "<tr>
            <td align='top' style='font-
weight: bold; padding-bottom: 10px;'>Delivery Time Range:</td>";
            if(!$_GET['dDate'])
                echo "<td style='padding-
bottom: 10px;'><i>Pick a Delivery Date first.</i></td>";
            else {
                echo "<td style='padding-bottom: 10px;'>";
                echo "<input type='hidden' name='Deliver
yTimeRange24' id='DeliveryTimeRange24' value='';
                    if(str_replace("%20"," ",$_GET['dTime'
]) == '9am - 1pm') echo "09";
                    if(str_replace("%20"," ",$_GET['dTime'
]) == '1pm - 5pm') echo "13";
                    if(str_replace("%20"," ",$_GET['dTime'
]) == '5pm - 9pm') echo "17";
                    echo " />";
                    echo "<select name='DeliveryTimeRange' i
d='DeliveryTimeRange' onChange='javascript:changeDateTimeRange()'><opt
ion value=''></option>";
                        if((($_GET['dDate'] == date('Y-m-
d') && date('H') < 12) || ($_GET['dDate'] != date('Y-m-d'))))
                            echo "<option value='9am -
1pm' ".(str_replace("%20"," ",$_GET['dTime'])=='9am -
1pm'?"selected='selected'":"").">9am - 1pm</option>";
                        if((($_GET['dDate'] == date('Y-m-
d') && date('H') < 16) || ($_GET['dDate'] != date('Y-m-d'))))
                            echo "<option value='1pm -
5pm' ".(str_replace("%20"," ",$_GET['dTime'])=='1pm -
5pm'?"selected='selected'":"").">1pm - 5pm</option>";
                        if((($_GET['dDate'] == date('Y-m-
d') && date('H') < 20) || ($_GET['dDate'] != date('Y-m-d'))))
                            echo "<option value='5pm -
9pm' ".(str_replace("%20"," ",$_GET['dTime'])=='5pm -
9pm'?"selected='selected'":"").">5pm - 9pm</option>";
                        echo "</select>";
                    echo "</td>";
                }
            echo "</tr>";
            echo "<tr>
                <td valign='top' style='font-
weight: bold;' width='175'>Estimated Arrival:</td>";
                if(!$_GET['dDate'] || !$_GET['dTime'])

```

```

        echo "<td><i>Pick a Delivery Date and Time
Range first.</i></td>";
    else {
        $addresses = array("38.98989,-76.936226");
        $driverIDQuery = "SELECT DriverID FROM DEL
IVERY_PEOPLE WHERE RouteID = '".getDeliveryRoute($_SESSION['userinfo']
['CustomerID'])."' AND WorkHours = '".str_replace("%20"," ",$_GET['dT
ime'])."'";
        $driverIDResult = mysql_query($driverIDQue
ry);
        $driverIDRow = mysql_fetch_assoc($driverID
Result);
        $driverID = $driverIDRow['DriverID'];
        echo "<input type='hidden' name='driverID'
value='$driverID' />";
        $existingOrdersResult = mysql_query("SELEC
T * FROM ORDERS WHERE DeliveryDate = '$_GET['dDate']."' AND Delivery
TimeRange = '".str_replace("%20"," ",$_GET['dTime'])."' AND DriverID =
$driverID ORDER BY OrderID");
        while ($existingOrdersRow = mysql_fetch_as
soc($existingOrdersResult)) {
            $userinfoResult = mysql_query("SELECT *
FROM CUSTOMERS WHERE CustomerID = '$_{$existingOrdersRow['CustomerID']}'.
";");
            $userinfoRow = mysql_fetch_assoc($userin
foResult);
            $addresses[] = $userinfoRow['AddressStre
et'] . ", " . $userinfoRow['AddressCity'] . " " . $userinfoRow['Addres
sState'] . ", " . $userinfoRow['AddressZip'];
        }
        $addresses[] = $_SESSION['userinfo']['Addr
essStreet'] . ", " . $_SESSION['userinfo']['AddressCity'] . " " . $_SE
SSION['userinfo']['AddressState'] . ", " . $_SESSION['userinfo']['Addr
essZip'];
        echo "<script src='http://maps.google.com/
maps?file=api&v=2&key=ABQIAAAAt43nl5iO60aoU-bD-
8O2SxQZrun2bISZn4KqMWt44f5SUKlG-xTVx44HD-
4ofbG2GGaPJOnEAUvtOg' type='text/javascript'></script>
        <script type='text/javascript' src='/js/
BpTspSolver.js'></script>
        <script type='text/javascript' src='/js/
tsp.js'></script>
        <script type='text/javascript' src='/js/
date.format.js'></script>
        <script type='text/javascript'>
        function init() {
            isDone = false;
            loadAtStart(37.4419, -122.1419, 8);
            addList('".implode("\n",$addresses)."'
        );
            directions(0,0,0);
        }
        </script>
        <div id='map' style='display: none;'> </
div>
        <div id='exportData' style='display: non
e;'></div>

```



```
</body>
</html>
```

Main Index Page (index.php)

```
<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes
/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
    <title>eGroceries</title>
    <link rel="stylesheet" href="/styles/main.css" type="text/css">
  </head>
  <body>
    <div id="frame">
      <div id="header">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/header.inc.php'); ?>
      </div>
      <div id="nav">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/nav.inc.php'); ?>
      </div>
      <div id="content">
        <img src='/gr/keyboard.jpg' style='float: right; padding: 2px; border: 1px solid #ccc; margin: 5px;'/>
        <h1>Welcome to eGroceries!</h1>
        <p>Welcome to the wonderful world of online grocery shopping! No longer will you have to make the long trek to pickup the necessities of life. Thanks to the stunning innovations in technology, you can now order food and personal items directly from your home PC! Items are delivered by our first class delivery drivers from nearby warehouses directly to your front door. After you place your order, you will receive a guaranteed delivery time range and delivery fee. To begin, simply <a href="register.php" class="mainlink">register</a> or <a href="signin.php" class="mainlink">Sign In</a> today!</p>
        <h1>About This Site</h1>
        <img src='/gr/umd.jpg' style='float: left; padding: 2px; border: 1px solid #ccc; margin-top: 7px; margin-right: 5px;'/>
        <p>This site was created for educational purposes by Stephen Eskin and Jeff Lasser for the Database Design Project for the University of Maryland's CMSC424 Database Design course. It is a fictional representation of modern online grocery delivery services, and is not meant to be an actual product. No claims are made of ownership of any images, product information, or other intellectual property other than program and database code. A majority of the product data has come from <a href="http://shop.safeway.com/superstore/" target="_new" class="mainlink">Safeway Grocery Delivery</a> and is &copy; 2009-2010 Safeway, Inc.</p>
      </div>
      <div id="footer">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/
```

```

es/includes/footer.inc.php'); ?>
    </div>
  </div>
</body>
</html>

```

Logout Page (logout.php)

```

<?php
    session_start();
    unset($_SESSION);
    session_destroy();
    header("Location: index.php");
?>

```

Past Customer Orders (pastorders.php)

```

<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes
/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-//
W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml11/DTD
D/xhtml11-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=utf-
8" />
        <title>eGroceries</title>
        <link rel="stylesheet" href="/styles/main.css" type="text/css">
    </head>
    <body onload='init()' onunload='GUnload()'>
        <div id="frame">
            <div id="header">
                <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/header.inc.php'); ?>
            </div>
            <div id="nav">
                <?php include('/kunden/homepages/25/d123903211/htdocs/egrocer
ies/includes/nav.inc.php'); ?>
            </div>
            <div id="content">
                <h1>My eGroceries Account - Past Orders</h1>
                <?php
                    if(!$_SESSION['userinfo']) {
                        echo "<p class='error'><strong>Error!</strong> You are not
logged in! Please wait to be redirected...</p><meta http-
equiv='REFRESH' content='0;url=signin.php'>";
                    } else {
                        if(!$_GET['orderId']) {
                            $orderInfoListResult = mysql_query("SELECT * FROM ORDERS W
HERE CustomerID = '". $_SESSION['userinfo']['CustomerID']."' ORDER BY D
eliveryDate DESC, OrderID DESC");
                            echo "<table cellpadding='5' cellspacing='2'>";
                            echo "<tr><th align='center'>Order ID</th><th>Delivery Dat
e/Time</th><th>Order Payment Method</th><th align='center'>Total</th><
th align='center'>Paid</th><th align='center'>Details</th></tr>";
                            $i = 0;

```

```

while($orderInfoListRow = mysql_fetch_assoc($orderInfoList
Result)) {
    $transactionInfoQuery = "SELECT * FROM TRANSACTIONS WHERE
E OrderID = '". $orderInfoListRow['OrderID']. "'";
    $transactionInfoResults = mysql_query($transactionInfoQu
ery);
    $transactionInfo = mysql_fetch_assoc($transactionInfoRes
ults);
    $paymentTypeDetailsResult = mysql_query("SELECT * FROM P
AYMENT_TYPES WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']
.'" AND PaymentID='". $orderInfoListRow['PaymentID']. "'");
    $paymentTypeDetailsRow = mysql_fetch_assoc($paymentTypeD
etailsResult);
    if($i++ % 2) $color = "style='background-
color: #F3F3F3'"; else unset($color);
    echo "<tr onClick=\"window.location='pastorders.php?orde
rID='". $orderInfoListRow['OrderID']. "'\" style='cursor: pointer'>";
    echo "<td align='center' $color>". $orderInfoListRow['O
rderID']. "</td>";
    if($transactionInfo['DateTimeArrived'])
        echo "<td $color>". date('m/d/Y g:i a', strtotime($tr
ansactionInfo['DateTimeArrived'])). "</td>";
    else
        echo "<td $color>". date('m/d/Y', strtotime($orderInfo
ListRow['DeliveryDate'])). " ". $orderInfoListRow['DeliveryTimeRange']. "
</td>";
    if($paymentTypeDetailsRow['PaymentType'] == 'Credit Ca
rd')
        echo "<td $color>". $paymentTypeDetailsRow['PaymentTy
pe']. " (" . substr($paymentTypeDetailsRow['PaymentInfo'], -4). ")</td>";
    else
        echo "<td $color>". $paymentTypeDetailsRow['PaymentTy
pe']. " (" . toMoney($paymentTypeDetailsRow['PaymentInfo'], true). ")</td>";
    echo "<td $color>". toMoney(($orderInfoListRow['BasePri
ce'] + $orderInfoListRow['SalesTax'] + $orderInfoListRow['DeliveryChar
ge']), true). "</td>";
    if($transactionInfo['AmountPaid'])
        echo "<td $color>". toMoney($transactionInfo['AmountP
aid'], true). "</td>";
    else
        echo "<td $color>$0.00</td>";
    echo "<td align='center' $color><a class='mainlink' hr
ef='pastorders.php?orderID='". $orderInfoListRow['OrderID']. "'>View Deta
ils</a></td>";
    echo "</tr>";
}
echo "</table>";
} else {
    echo "<h2 class='h2'>Order # '". $_GET['orderID']. " Informat
ion</h2>";
    $orderInfoResult = mysql_query("SELECT * FROM ORDERS WHERE
OrderID = '". $_GET['orderID']. "'");
    $orderInfo = mysql_fetch_assoc($orderInfoResult);
    if(!mysql_num_rows($orderInfoResult)) {
        echo "<p class='error'><strong>Error!</strong> Invalid O
rder ID! Please wait to be redirected...</p><meta http-

```

```

equiv='REFRESH' content='0;url=account.php'>";
    } else {
        $transactionInfoQuery = "SELECT * FROM TRANSACTIONS WHERE
E OrderID = '". $_GET['orderID']."'";
        $transactionInfoResults = mysql_query($transactionInfoQuery);
        $transactionInfo = mysql_fetch_assoc($transactionInfoResults);
        $basketItemsResult = mysql_query("SELECT * FROM BASKETS
WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']."' AND BasketID = '". $_orderInfo['BasketID']."'");
        $paymentTypeDetailsResult = mysql_query("SELECT * FROM PAYMENT_TYPES WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']."' AND PaymentID='". $_orderInfo['PaymentID']."'");
        $paymentTypeDetailsRow = mysql_fetch_assoc($paymentTypeDetailsResult);
        echo "<table cellpadding='1' cellspacing='2' style='text-align: left; margin-left: 75px; width: 600px;'>";
        echo "<tr><th>Item Description</th></tr>";
        if(mysql_num_rows($basketItemsResult)) {
            $basketItemsRow = mysql_fetch_assoc($basketItemsResult);
            $basketItems = explode(",", $basketItemsRow['ProductArray']);
            $i = 0;
            foreach($basketItems as $productID) {
                $productsResult = mysql_query("SELECT * FROM PRODUCTS WHERE ProductID = '". $productID."'");
                while ($productRow = mysql_fetch_assoc($productsResult)) {
                    if($i % 2) $color = "background-color: #F3F3F3"; else unset($color);
                    echo "<tr><td style='$color'>". $productRow['Description']."</td></tr>";
                }
                $i++;
            }
            if(!$basketItemsRow['ProductArray'] || trim(implode(",", $basketItems), ",") == "")
                echo "<tr><td colspan='2' style='text-align: center; font-style: italic; font-size: 11px;'>No items exist in your basket!</td></tr></table>";
            else {
                $taxSubtotal = (0.06 * $taxableSubtotal);
                $deliveryCost = getDeliveryCost($_SESSION['userinfo']['CustomerID']);
                echo "<tr><td colspan='2' style='font-weight: bold; text-align: right;'>Subtotal: ".toMoney($_orderInfo['BasePrice'], true)."</td></tr>";
                echo "<tr><td colspan='2' style='font-weight: bold; text-align: right;'>Sales Tax: ".toMoney($_orderInfo['SalesTax'], true)."</td></tr>";
                echo "<tr><td colspan='2' style='font-weight: bold; text-align: right;'>Delivery Fee: ".toMoney($_orderInfo['DeliveryCharge'], true)

```

```

e). "</td></tr>";
    echo "<tr><td colspan='2' style='font-
weight: bold; text-align: right; color: #861E23'><span style='border-
top: 1px solid #000'>Grand Total: ".$toMoney(($orderInfo['BasePrice'] +
$orderInfo['SalesTax'] + $orderInfo['DeliveryCharge']),true). "</span>
</td></tr>";
    echo "</table>";

    echo "<style>td { font-size: 13px; }</style>";
    echo "<table width='100%' cellpadding='0' cellspacin
g='2'><tr><td width='50%' valign='top'>";
    echo "<h2 class='h2'>Delivery Information</h2>";
    echo "<table width='100%'>";
    echo "<tr>
    <td valign='top' style='font-
weight: bold; padding-bottom: 10px;' width='160'>Deliver To:</td>
    <td style='padding-
bottom: 10px;'>".$_SESSION['userinfo']['AddressStreet']. "<br/>".$_SESS
ION['userinfo']['AddressCity']. ", ".$_SESSION['userinfo']['AddressStat
e']. " ".$_SESSION['userinfo']['AddressZip']. "</td>
    </tr>";
    echo "<tr>
    <td align='top' style='font-
weight: bold; padding-bottom: 10px;'>Delivery Date:</td>
    <td style='padding-
bottom: 10px;'>".date("l, F jS",strtotime($orderInfo['DeliveryDate']))
. "</select></td>
    </tr>";
    echo "<tr>
    <td align='top' style='font-
weight: bold; padding-bottom: 10px;'>Delivery Time Range:</td>
    <td style='padding-bottom: 10px;'>";
    echo "<input type='hidden' name='DeliveryTimeR
ange24' id='DeliveryTimeRange24' value='";
    if($orderInfo['DeliveryTimeRange'] == '9am -
1pm') echo "09";
    if($orderInfo['DeliveryTimeRange'] == '1pm -
5pm') echo "13";
    if($orderInfo['DeliveryTimeRange'] == '5pm -
9pm') echo "17";
    echo "'/>";
    echo $orderInfo['DeliveryTimeRange']. "</td>
    </tr>";
    echo "<tr>";
    if($transactionInfo['DateTimeArrived']) {
    echo "<td valign='top' style='font-
weight: bold;'>Delivery Date/Time:</td>
    <td>".date('m/d/Y g:i a', strtotime($tra
nsactionInfo['DateTimeArrived'])). "</td>";
    } else {
    echo "<td valign='top' style='font-
weight: bold;'>Estimated Arrival:</td>";
    $addresses = array("38.98989,-76.936226");
    $existingOrdersQuery = "SELECT * FROM ORDERS
WHERE DeliveryDate = '".$orderInfo['DeliveryDate']."' AND DeliveryTim
eRange = '".$orderInfo['DeliveryTimeRange']."' AND DriverID = '".$orde
rInfo['DriverID']."' ORDER BY OrderID";

```

```

                                $existingOrdersResult = mysql_query($existing
gOrdersQuery);
                                while ($existingOrdersRow = mysql_fetch_asso
c($existingOrdersResult)) {
                                    $userinfoResult = mysql_query("SELECT * FR
OM CUSTOMERS WHERE CustomerID = '". $existingOrdersRow['CustomerID']."'
;");
                                    $userinfoRow = mysql_fetch_assoc($userinfo
Result);
                                    $addresses[] = $userinfoRow['AddressStreet
'] . ", " . $userinfoRow['AddressCity'] . " " . $userinfoRow['AddressS
tate'] . ", " . $userinfoRow['AddressZip'];
                                }
                                echo "<input type='hidden' name='DeliveryEst
imate' id='DeliveryEstimate' /><input type='hidden' name='DeliveryTime
Range' id='DeliveryTimeRange' value='". $orderInfo['DeliveryTimeRange']
.'"/>
                                <script src='http://maps.google.com/maps?f
ile=api&v=2&key=ABQIAAAAt43nl5iO60aoU-bD-
8O2SxQZrun2bISZn4KqMWt44f5Suk1G-xTVx44HD-
4ofbG2GGaPJOnEAUVtOg' type='text/javascript'></script>
                                <script type='text/javascript' src='/js/Bp
TspSolver.js'></script>
                                <script type='text/javascript' src='/js/ts
p.js'></script>
                                <script type='text/javascript' src='/js/da
te.format.js'></script>
                                <script type='text/javascript'>
                                function init() {
                                    isDone = false;
                                    loadAtStart(37.4419, -122.1419, 8);
                                    addList('".implode("\n", $addresses)."'
;
                                    directions(0,0,0);
                                }
                                </script>
                                <div id='map' style='display: none;'> </di
v>
                                <div id='exportData' style='display: none;
'></div>
                                <div id='durationsData' style='display: no
ne;'></div>
                                <div id='ordering' style='display: none;'>
</div>
                                <div id='my_textual_div' style='display: n
one;'></div> ";
                                echo "<td id='path'>Loading...</td>";
                                }
                                echo "</tr>";
                                echo "</table>";
                                echo "</td><td width='50%' valign='top'>";
                                echo "<h2 class='h2'>Billing Information</h2>";
                                echo "<table width='100%'>";
                                echo "<tr>
                                    <td align='top' style='font-
weight: bold; padding-bottom: 10px;' width='150'>Payment Method:</td>
                                    <td style='padding-bottom: 10px;'>";

```

```

        if($paymentTypeDetailsRow['PaymentType'] ==
        'Credit Card')
            echo $paymentTypeDetailsRow['PaymentType']
        ." (" .substr($paymentTypeDetailsRow['PaymentInfo'],-4).")";
        else
            echo $paymentTypeDetailsRow['PaymentType']
        ." (" .toMoney($paymentTypeDetailsRow['PaymentInfo'],true).")";
        echo "</td>
        </tr>";
        if($transactionInfo['DateTimePaid']) {
            echo "<tr><td align='top' style='font-
weight: bold; padding-
bottom: 10px;'>Payment Recieved:</td><td style='padding-
bottom: 10px;'>".toMoney($transactionInfo['AmountPaid'],true) . " on "
. date('m/d/y g:i a',strtotime($transactionInfo['DateTimePaid']))."</
td></tr>";
        } else {
            echo "<tr><td align='top' style='font-
weight: bold; padding-
bottom: 10px;'>Payment Recieved:</td><td style='padding-
bottom: 10px;'>$0.00</td></tr>";
        }
        echo "<tr><td align='top' style='font-
weight: bold;'>View Bill:</td><td><a href='/bills/'.\$transactionInfo['
BillNum']. ".html" target='_blank' class='mainlink'>View Bill Here</a><
td></tr>";
        echo "</table>";
        echo "</tr></table>";
    }
}
}
}
}
?>
</div>
<div id="footer">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/footer.inc.php'); ?>
</div>
</div>
</body>
</html>

```

Customer Payment Methods (paymentmethods.php)

```
<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
    <title>eGroceries</title>
    <link rel="stylesheet" href="/styles/main.css" type="text/css">
```

```

</head>
<body>
  <div id="frame">
    <div id="header">
      <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/header.inc.php'); ?>
    </div>
    <div id="nav">
      <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/nav.inc.php'); ?>
    </div>
    <div id="content">
      <h1>My eGroceries Account - Manage Payment Methods</h1>
      <?php
        if(!$_SESSION['userinfo']) {
          echo "<p class='error'><strong>Error!</strong> You are not logged in! Please wait to be redirected...</p><meta http-equiv='REFRESH' content='0;url=signin.php'>";
        } else {
          if($_POST['PaymentID']) {
            if($_POST['PaymentID'] == "NEW") {
              if(!$_POST['PaymentInfo']) {
                echo "<p class='error'><strong>Error!</strong> A Credit Card Number or Checking Account Limit is required!</p>";
              } else {
                $newPaymentIDQuery = "SELECT MAX(PaymentID) as PaymentID FROM PAYMENT_TYPES WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']."'";
                $newPaymentIDResult = mysql_query($newPaymentIDQuery);
                $newPaymentIDRow = mysql_fetch_assoc($newPaymentIDResult);
                $newPaymentID = $newPaymentIDRow['PaymentID'] + 1;
                $addPaymentQuery = "INSERT INTO PAYMENT_TYPES (CustomerID, PaymentID, PaymentType, PaymentInfo) VALUES ('". $_SESSION['userinfo']['CustomerID']."', $newPaymentID, '". $_POST['PaymentType']."', '". str_replace("$", "", $_POST['PaymentInfo'])."')";
                $addPaymentResult = mysql_query($addPaymentQuery);
                if(mysql_error()) {
                  echo "<p class='error'><strong>Error!</strong> MySQL Error: ".mysql_error()."</p>";
                } else {
                  echo "<p class='success'><strong>Success!</strong> Your new '". $_POST['PaymentType']."' payment method has been added.</p>";
                }
              }
            } elseif(substr($_POST['PaymentInfo'],0,3) != "xxx") {
              $updatePaymentQuery = "UPDATE PAYMENT_TYPES SET PaymentType = '". $_POST['PaymentType']."', PaymentInfo = '". str_replace("$", "", $_POST['PaymentInfo'])."' WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']."' AND PaymentID = '". $_POST['PaymentID']."'";
              $updatePaymentResult = mysql_query($updatePaymentQuery);
              if(mysql_error()) {
                echo "<p class='error'><strong>Error!</strong> MySQL Error: ".mysql_error()."</p>";
              } else {
                echo "<p class='success'><strong>Success!</strong> Your '". $_POST['PaymentType']."' payment method has been updated.</p>";
              }
            }
          }
        }
      </?php>
    </div>
  </div>

```

```

    }
    }
    }
    echo "<script language='javascript' type='text/javascript'>
        function editRow(object, key) {
            if(document.getElementById(key + '_PaymentInfo').disab
led == true) {
                document.getElementById(key + '_PaymentTypeDisplay')
.style.display = 'none';
                document.getElementById(key + '_PaymentType').style.
display = '';
                document.getElementById(key + '_PaymentInfo').disabl
ed = false;
                document.getElementById(key + '_PaymentInfo').style.
border = '';
                object.src = '/gr/save.gif';
            } else {
                if(document.getElementById(key + '_PaymentTypeDispla
y'))
                    document.getElementById(key + '_PaymentTypeDisplay
').style.display = '';
                    document.getElementById(key + '_PaymentType').style.
display = 'none';
                    document.getElementById(key + '_PaymentInfo').disabl
ed = true;
                    document.getElementById(key + '_PaymentInfo').style.
border = 'none';
                    document.editPaymentInfoForm.PaymentID.value = key;
                    document.editPaymentInfoForm.PaymentType.value = doc
ument.getElementById(key + '_PaymentType').value;
                    document.editPaymentInfoForm.PaymentInfo.value = doc
ument.getElementById(key + '_PaymentInfo').value;
                    document.editPaymentInfoForm.submit();
                    if(document.getElementById(key + '_PaymentTypeDispla
y'))
                        object.src = '/gr/edit.gif';
                }
            }
        }
    </script>";
    $paymentTypesResult = mysql_query("SELECT * FROM PAYMENT_TYP
ES WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']."'");
    echo "<form method='post' name='editPaymentInfoForm' id='edi
tPaymentInfoForm'>";
    echo "<table>";
    echo "<tr><th align='center'>ID</th><th>Payment Type</th><th>
Credit Card Number/Checking Account Limit</th><th align='center'>Acti
on</th></tr>";
    while($paymentTypesRow = mysql_fetch_assoc($paymentTypesResu
lt)) {
        echo "<tr>
            <td align='center'>".$paymentTypesRow['PaymentID']."</
td>
            <td>
                <input name='". $paymentTypesRow['PaymentID']."' _Payme
ntTypeDisplay' id='". $paymentTypesRow['PaymentID']."' _PaymentTypeDispla
y' value='". $paymentTypesRow['PaymentType']."' disabled='true' style='
width: 100%; color: #000000 !important; text-

```

```

decoration: none; border: 0px; background-color: #fff' />
        <select name='". $paymentTypesRow['PaymentID']."' _Paym
entType' id='". $paymentTypesRow['PaymentID']."' _PaymentType' style='wid
th: 100%; color: #000000 !important; text-
decoration: none; background-
color: #fff; display: none;'><option value='Credit Card' ". ($paymentTy
pesRow['PaymentType'] == "Credit Card"? "selected='selected' ":""). ">Cre
dit Card</option><option value='Checking Account' ". ($paymentTypesRow['
PaymentType'] == "Checking Account"? "selected='selected' ":""). ">Checki
ng Account</option></select>
        </td>
        <td><input name='". $paymentTypesRow['PaymentID']."' _Pay
mentInfo' id='". $paymentTypesRow['PaymentID']."' _PaymentInfo' maxlength
='16' value='". ($paymentTypesRow['PaymentType'] == "Credit Card"? "xxxx
xxxxxxxx".substr($paymentTypesRow['PaymentInfo'],-
4):$paymentTypesRow['PaymentInfo'])."' disabled='true' style='width: 1
00%; color: #000000 !important; text-
decoration: none; border: 0px; background-color: #fff' /></td>
        <td align='center'><img src='/gr/edit.gif' alt='Edit'
onclick=\"javascript:editRow(this, '". $paymentTypesRow['PaymentID']."'
)\ " style='cursor: pointer' /></td>
        </tr>;
    }
    echo "<tr>
        <td align='center'>NEW</td>
        <td><select name='NEW_PaymentType' id='NEW_PaymentType'
style='width: 100%; color: #000000 !important; text-
decoration: none; background-
color: #fff'><option value='Credit Card'>Credit Card</option><option v
alue='Checking Account'>Checking Account</option></select></td>
        <td><input name='NEW_PaymentInfo' id='NEW_PaymentInfo' m
axlength='16' style='width: 100%; color: #000000 !important; text-
decoration: none; background-color: #fff' /></td>
        <td align='center'><img src='/gr/save.gif' alt='Save' on
click=\"javascript:editRow(this, 'NEW')\" style='cursor: pointer' /></
td>
        </tr>;
    echo "</table>";
    echo "<input type='hidden' name='PaymentID' value='' /><input
type='hidden' name='PaymentType' value='' /><input type='hidden' nam
e='PaymentInfo' value='' />";
    echo "</form>";
}
?>
</div>
<div id="footer">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/footer.inc.php'); ?>
</div>
</div>
</body>
</html>

```

Registration Page (register.php)

```
<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes
```

```

/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
    <title>eGroceries</title>
    <link rel="stylesheet" href="/styles/main.css" type="text/css">
  </head>
  <body>
    <div id="frame">
      <div id="header">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/header.inc.php'); ?>
      </div>
      <div id="nav">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/nav.inc.php'); ?>
      </div>
      <div id="content">
        <img src='/gr/keyboard.jpg' style='float: right; padding: 2px; border: 1px solid #ccc; margin: 5px;'/>
        <h1>Register for eGroceries</h1>
        <?php
          if($_POST['register']) {
            $valid = true; $missing = array();

            if(!$_POST['FirstName']) { $valid = false; $missing[] = 'First Name'; }
            if(!$_POST['LastName']) { $valid = false; $missing[] = 'Last Name'; }
            if(!$_POST['AddressStreet']) { $valid = false; $missing[] = 'Address: Street'; }
            if(!$_POST['AddressCity']) { $valid = false; $missing[] = 'Address: City'; }
            if(!$_POST['AddressZip']) { $valid = false; $missing[] = 'Address: Zip Code'; }
            if(!$_POST['AddressState']) { $valid = false; $missing[] = 'Address: State Code'; }
            if(!$_POST['Gender']) { $valid = false; $missing[] = 'Gender'; }
          }
          if(!$_POST['Email']) { $valid = false; $missing[] = 'Email Address'; }
          if(!$_POST['Username']) { $valid = false; $missing[] = 'Username'; } else {
            $usernameResult = mysql_query("SELECT * FROM CUSTOMERS WHERE Username = '".$_POST['Username']."'");
            if(mysql_num_rows($usernameResult)) {
              $valid = false;
              $userNameExists = true;
            }
          }
          if(!$_POST['Password']) { $valid = false; $missing[] = 'Password'; }
        </?php

```

```

        if($valid) {
            $insertQuery = "INSERT INTO CUSTOMERS (FirstName, LastName,
AddressStreet, AddressCity, AddressZip, AddressState, Gender, Email, U
sername, Password) VALUES ('".mysql_real_escape_string($_POST['FirstNa
me'])."', '".mysql_real_escape_string($_POST['LastName'])."', '".mysql
_real_escape_string($_POST['AddressStreet'])."', '".mysql_real_escape_
string($_POST['AddressCity'])."', '".mysql_real_escape_string($_POST['
AddressZip'])."', '".mysql_real_escape_string($_POST['AddressState']).
"', '".mysql_real_escape_string($_POST['Gender'])."', '".mysql_real_es
cape_string($_POST['Email'])."', '".mysql_real_escape_string($_POST['U
sername'])."', '".md5($_POST['Password'])."');";
            $insertResult = mysql_query($insertQuery);
            if(mysql_error())
                echo "<p class='error' style='width: 455px'><strong>Error!
</strong> MySQL Error: <u>".mysql_error()."</u></p>";
            else
                echo "<p class='success' style='width: 455px'><strong>Succ
ess!</strong> Your information has been added and account created. Re
directing you to the sign in page...</p><meta http-
equiv='REFRESH' content='0;url=signin.php'>";
        } else {
            if(count($missing))
                echo "<p class='error' style='width: 455px'><strong>Error!
</strong> The following fields were missing and are required: <u>".imp
lude(", ", $missing)."</u></p>";
            elseif($userNameExists)
                echo "<p class='error' style='width: 455px'><strong>Error!
</strong> Username already exists, please choose another.</p>";
            else
                echo "<p class='error' style='width: 455px'><strong>Error!
</strong> The following fields were missing and are required: <u>".imp
lude(", ", $missing)."</u></p>";
        }
    }
    if(!$valid) {
?>
        <p>
            <form method="POST" style="width: 425px">
                <table style="width: 425px">
                    <tr>
                        <td colspan="2" align="center"><h2 style="text-
decoration: underline; font-size: 18px; margin-
top: 0px">Personal Information</h2></td>
                    </tr>
                    <tr>
                        <td style="font-weight: bold">First Name</td>
                        <td><input type="text" name="FirstName" size="30"
value="<?=$_POST['FirstName']; ?>" /></td>
                    </tr>
                    <tr>
                        <td style="font-weight: bold">Last Name</td>
                        <td><input type="text" name="LastName" size="30" v
alue="<?=$_POST['LastName']; ?>" /></td>
                    </tr>
                    <tr>
                        <td style="font-weight: bold">Address: Street</td>
                        <td><input type="text" name="AddressStreet" size="

```

```

30" value="<?=$_POST['AddressStreet']; ?>" /></td>
</tr>
<tr>
    <td style="font-weight: bold">Address: City</td>
    <td><input type="text" name="AddressCity" size="30
" value="<?=$_POST['AddressCity']; ?>" /></td>
</tr>
<tr>
    <td style="font-
weight: bold">Address: State Code</td>
    <td><input type="text" name="AddressState" size="2
" maxlength="2" value="<?=$_POST['AddressState']; ?>" /></td>
</tr>
<tr>
    <td style="font-weight: bold">Address: Zip</td>
    <td><input type="text" name="AddressZip" size="5"
maxlength="5" value="<?=$_POST['AddressZip']; ?>" /></td>
</tr>
<tr>
    <td style="font-weight: bold">Gender</td>
    <td><select name="Gender">
        <option <? if($_POST['Gender'] == "Male") ec
ho "selected='selected'"; ?>>Male</option>
        <option <? if($_POST['Gender'] == "Female")
echo "selected='selected'"; ?>>Female</option>
        <option <? if($_POST['Gender'] == "Other") e
cho "selected='selected'"; ?>>Other</option>
    </select></td>
</tr>
<tr>
    <td colspan="2" align="center"><h2 style="text-
decoration: underline; font-size: 18px;">Account Information</h2></td>
</tr>
<tr>
    <td style="font-weight: bold">Username</td>
    <td><input type="text" name="Username" size="30" v
alue="<?=$_POST['Username']; ?>" /></td>
</tr>
<tr>
    <td style="font-weight: bold">Password</td>
    <td><input type="password" name="Password" size="3
0" value="<?=$_POST['Password']; ?>" /></td>
</tr>
<tr>
    <td style="font-weight: bold">Email Address</td>
    <td><input type="text" name="Email" size="30" valu
e="<?=$_POST['Email']; ?>" /></td>
</tr>
<tr>
    <td colspan="2" align="center">&nbsp;</td>
</tr>
<tr>
    <td colspan="2" align="center"><input type="submit
" name="register" value="Register" /></td>
</tr>
</table>
</form>

```

```

        </p>
        <?php
        }
        ?>
    </div>
    <div id="footer">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/footer.inc.php'); ?>
    </div>
</div>
</body>
</html>

```

Search Page (search.php)

```

<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes
/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-
//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml11/DTD
D/xhtml11-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=utf-
8" />
        <title>eGroceries</title>
        <link rel="stylesheet" href="/styles/main.css" type="text/css">
    </head>
    <body>
        <div id="frame">
            <div id="header">
                <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/header.inc.php'); ?>
            </div>
            <div id="nav">
                <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/nav.inc.php'); ?>
            </div>
            <div id="content">
                <h1>Search eGroceries</h1>
                <form method="get">
                    <table width="100%">
                        <tr>
                            <td>Description:</td><td><input name="searchDescription" s
tyle='width: 250px;' value='<?=$_GET['searchDescription'] ?>' /></td>
                            <td>Category:</td>
                            <td>
                                <select name="searchCategory" style='width: 193px;'>
                                    <option value=""></option>
                                    <?php
                                        $catResult = mysql_query("SELECT * FROM PRODUCT_CATE
GORIES");
                                        while ($catRow = mysql_fetch_assoc($catResult)) {
                                            echo "<option value='". $catRow['CATEGORY_IDX']. "'
.($_GET['searchCategory'] == $catRow['CATEGORY_IDX']?"selected='selec
ted'":"").">". $catRow['CATEGORY']. "</option>";
                                        }
                                    </?php
                                </select>
                            </td>
                        </tr>
                    </table>
                </form>
            </div>
        </div>
    </body>
</html>

```



```

'1';");
        else
            $createBasketItemsResult = mysql_query("INSERT INTO BASKETS (CustomerID, ProductArray, LastModified, Active) VALUES ('".$_SESSION['userinfo']['CustomerID']."'.'.implode(",",$basketItems)."',NOW(),1);");
            $suggestions = array(); $similarItemIDs = array();
            $similarItemsResult = mysql_query("SELECT ProductID FROM PRODUCTS WHERE LOWER(Manufacturer) LIKE '%".$_strtolower($itemQuantityRow['Manufacturer'])."%';");
            while($similarItemsRow = mysql_fetch_assoc($similarItemsResult)) {
                $similarItemIDs[] = $similarItemsRow['ProductID'];
            }
            for($i = 0; $i < 5; $i++) {
                $randomID = $similarItemIDs[rand(0,count($similarItemIDs)-1)];
                $similarItemDetailsResult = mysql_query("SELECT cat, subcat, Description FROM PRODUCTS WHERE ProductID = '".$randomID.'";");
                $suggestions[$randomID] = mysql_fetch_assoc($similarItemDetailsResult);
            }
            foreach($suggestions as $productID => $productInfo)
            {
                $image = "http://shop.safeway.com/productimages/100x100/".$productID."_100x100.jpg";
                if(@GetImageSize($image)) // Display product image from Safeway's site if exists, otherwise missing image
                    $productImage = $image;
                else
                    $productImage = "/gr/missingProduct.jpg";
                $suggestionHTML .= "<td align='center' valign='top' width='20%' onClick=\"window.open('shop.php?cat=".$_productInfo['cat']."&subcat=".$_productInfo['subcat']."'.'".$_productID."' )\" style='cursor: pointer; font-size: 11px;'><img src='".$image"' height='50px' width='50px' /><br/>".$_productInfo['Description']."'</td>";
            }
            echo "<p class='success'>
                <strong>Success!</strong> The product \"".$_POST['productToAddDescription']."'\" has been added to your <a href='basket.php'>basket</a>.
                <br/>Below are a few other products by \"$.itemQuantityRow['Manufacturer']."' that you might also enjoy:
                </p>";
            echo "<table width='100%'><tr>$suggestionHTML</tr></table>";
        } else {
            echo "<p class='error'><strong>Error!</strong> There is not enough stock to add this product to your basket. Please try again later.</p>";
        }
    } else {
        echo "<p class='error'><strong>Error!</strong> You are not logged in! Please <a href='signin.php'>Sign In</a> or <a href='register.php'>Register</a> before you attempt to buy items. </p>";
    }
}

```

```

    }
    }
    echo "<table cellpadding='1'>";
    echo "<tr><th colspan='2'>Item Description</th><th colspan
='2' align='center'>Price</th></tr>";
    $where = ""; $and = 0;
    if($_GET['searchDescription']) { if($and) { $where .= " AN
D "; } $where .= " LOWER(Description) LIKE '%" .mysql_real_escape_strin
g(strtolower(trim($_GET['searchDescription']))) . "%'"; $and = 1; }
    if($_GET['searchCategory']) { if($and) { $where .= " AND "
; } $where .= " cat = '" . $_GET['searchCategory'] . "'"; $and = 1; }
    if($_GET['searchManufacturer']) { if($and) { $where .= " A
ND "; } $where .= " LOWER(Description) LIKE '%" .mysql_real_escape_stri
ng(strtolower(trim($_GET['searchManufacturer']))) . "%'"; $and = 1; }
    if($_GET['searchPriceLow']) { if($and) { $where .= " AND "
; } $where .= " Price >= '" .mysql_real_escape_string(str_replace("$", "
",trim($_GET['searchPriceLow']))) . "'"; $and = 1; }
    if($_GET['searchPriceHigh']) { if($and) { $where .= " AND
"; } $where .= " Price <= '" .mysql_real_escape_string(str_replace("$",
"",trim($_GET['searchPriceHigh']))) . "'"; $and = 1; }
    if($and) {
        $productsQuery = "SELECT * FROM PRODUCTS WHERE $where OR
DER BY cat, subcat, Description";
        $productsResult = mysql_query($productsQuery);
    }
    if(!mysql_num_rows($productsResult))
        echo "<tr><td colspan='4' align='center'><i>No search re
sults found!</i></td></tr>";
    while ($productRow = mysql_fetch_assoc($productsResult)) {
        if($_SESSION['userinfo'] && !$_GET['searchPrevPurchased'
]) {
            $productPrevBoughtQuery = "SELECT * FROM BASKETS WHERE
CustomerID = '" . $_SESSION['userinfo']['CustomerID'] . "' AND ProductArr
ay LIKE '%" . $productRow['ProductID'] . "%'";
            $productPrevBoughtResult = mysql_query($productPrevBou
ghtQuery);
            if(mysql_num_rows($productPrevBoughtResult))
                continue;
        }
        echo "<tr>";
        $image = "http://shop.safeway.com/productimages/100x100/
" . $productRow['ProductID'] . "_100x100.jpg";
        if(@GetImageSize($image)) // Display product image from
Safeway's site if exists, otherwise missing image
            $productImage = $image;
        else
            $productImage = "/gr/missingProduct.jpg";
        echo "<td width='100'><a name='" . $productRow['ProductID'
] . "'></a><img src='$productImage' /></td>";
        if($productRow['Manufacturer'])
            $manufacturer = $productRow['Manufacturer'];
        else
            $manufacturer = "Not Available";
        echo "<td>" . $productRow['Description'] . "<br/><span style
='font-style: italic; font-
size: 12px'>Manufacturer: $manufacturer</span></td>";
        if($productRow['SaleStatus']) {

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        echo "<td width='60'>
            <span style='text-decoration:line-
through'>$. $productRow['Price'].</span><br/>
            <span style='color: #FF8F20; font-
weight: bold'>SALE!<br/>".toMoney($productRow['SalePrice'])."</span>
            </td>";
    } else {
        echo "<td width='60'>".toMoney($productRow['Price'])."
</td>";
    }
    if($productRow['Stock'] > 0) {
        if (in_array($productRow['ProductID'],$basketItems))
            $addToBasketText = "Add Another<br/>to Basket";
        else
            $addToBasketText = "Add to<br/>Basket";
        echo "<td width='70' style='text-align: center'>
            <form name='form".$productRow['ProductID']."' meth
od='post'>
                <input type='hidden' name='productToAdd' value='
".$productRow['ProductID']."' />
                <input type='hidden' name='productToAddDescripti
on' value='".$productRow['Description']."' />
                <a href='javascript:document.form".$productRow['
ProductID']."' .submit()' class='basketlink'>$addToBasketText</a>
            </form>
            </td>";
    } else {
        echo "<td width='70' style='text-align: center; text-
decoration:line-through; color: #CE5C62'>Out of<br/>Stock</td>";
    }
    echo "</tr>";
}
echo "</table>";
}
?>
</div>
<div id="footer">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/footer.inc.php'); ?>
</div>
</div>
</body>
</html>

```

Sign In Page (signin.php)

```

<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes
/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-
//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml11/DT
D/xhtml11-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=utf-
8" />
        <title>eGroceries</title>
    </head>

```

```

<link rel="stylesheet" href="/styles/main.css" type="text/css">
</head>
<body>
  <div id="frame">
    <div id="header">
      <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/header.inc.php'); ?>
    </div>
    <div id="nav">
      <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/nav.inc.php'); ?>
    </div>
    <div id="content">
      <img src='/gr/keyboard.jpg' style='float: right; padding: 2px;
border: 1px solid #ccc; margin: 5px;'/>
      <h1 style="margin-bottom: 50px;">Sign In to eGroceries</h1>
      <?php
        if($_SESSION['userinfo']) {
          echo "<p class='error'><strong>Error!</strong> You are alrea
dy logged in! Please wait to be redirected...</p><meta http-
equiv='REFRESH' content='0;url=account.php'>";
        } else {
          if($_POST['signin']) {
            if($_POST['Username'] && $_POST['Password']) {
              $usernameResult = mysql_query("SELECT * FROM CUSTOMERS W
HERE Username = '".mysql_real_escape_string($_POST['Username'])."'");
              if(mysql_num_rows($usernameResult)) {
                $passwordResult = mysql_query("SELECT * FROM CUSTOMERS
WHERE Username = '".mysql_real_escape_string($_POST['Username'])."' A
ND Password = '".md5(mysql_real_escape_string($_POST['Password']))."'");
                if(mysql_num_rows($passwordResult)) {
                  $userInfo = mysql_fetch_assoc($passwordResult);
                  $_SESSION['userinfo'] = $userInfo;
                  echo "<p class='success' style='width: 455px'><str
ong>Success!</strong> Please wait to be redirected...</p><meta http-
equiv='REFRESH' content='0;url=account.php'>";
                  $valid = true;
                } else {
                  echo "<p class='error' style='width: 455px'><strong>
Error!</strong> Invalid password.<br/>Please try again, or <a href='re
gister.php'>register</a> now.</p>";
                }
              } else {
                echo "<p class='error' style='width: 455px'><strong>Er
ror!</strong> Invalid username.<br/>Please try again, or <a href='regi
ster.php'>register</a> now.</p>";
              }
            } else {
              echo "<p class='error' style='width: 455px'><strong>Erro
r!</strong> Username and Password are required.<br/>Please try again,
or <a href='register.php'>register</a> now.</p>";
            }
          }
          if(!$valid) {
            ?>
          <p>

```

```

        <form method="POST" style="width: 450px;">
            <table style="width: 450px">
                <tr>
                    <td style="font-
weight: bold" align="right">Username:</td>
                    <td><input type="text" name="Username" size="20" s
tyle="width: 150px" /></td>
                </tr>
                <tr>
                    <td style="font-
weight: bold" align="right">Password:</td>
                    <td><input type="password" name="Password" size="2
0" style="width: 150px" /></td>
                </tr>
                <tr>
                    <td colspan="2" align="center">&nbsp;</td>
                </tr>
                <tr>
                    <td colspan="2" align="center"><input type="submit
" name="signin" value="Sign In" /></td>
                </tr>
            </table>
        </form>
    </p>
    <?php

    }
}
?>
</div>
<div id="footer">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/footer.inc.php'); ?>
</div>
</div>
</body>
</html>

```

Standing Orders (standingorders.php)

```

<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes
/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-
//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml11/DTD
D/xhtml11-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=utf-
8" />
        <title>eGroceries</title>
        <link rel="stylesheet" href="/styles/main.css" type="text/css">
    </head>
    <body>
        <div id="frame">
            <div id="header">
                <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri

```

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es/includes/header.inc.php'); ?>
</div>
<div id="nav">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/nav.inc.php'); ?>
</div>
<div id="content">
    <h1>My eGroceries Account - Standing Orders</h1>
    <?php
        if(!$_SESSION['userinfo']) {
            echo "<p class='error'><strong>Error!</strong> You are not
logged in! Please wait to be redirected...</p><meta http-
equiv='REFRESH' content='0;url=signin.php'>";
        } else {
            if($_GET['orderId']) {
                $orderInfoResult = mysql_query("SELECT * FROM ORDERS WHERE
OrderID = '".$_GET['orderId']."'");
                $orderInfo = mysql_fetch_assoc($orderInfoResult);
                if(!mysql_num_rows($orderInfoResult)) {
                    echo "<p class='error'><strong>Error!</strong> Invalid O
rder ID! Please wait to be redirected...</p><meta http-
equiv='REFRESH' content='0;url=account.php'>";
                } else {
                    if($_POST['modifyOrder']) {
                        if($_POST['StartDate'] && $_POST['EndDate'] && $_POST[
'FrequencyNum'] && $_POST['FrequencyUnit']) {
                            $frequency = $_POST['FrequencyNum'];
                            if($_POST['FrequencyUnit'] == "Weeks")
                                $frequency *= 7;
                            else if($_POST['FrequencyUnit'] == "Months")
                                $frequency *= 30;
                            if($_POST['existingStandingOrder']) {
                                $updateStandingOrderQuery = "UPDATE STANDING_ORDER
S SET Frequency = '".$_frequency."', StartDate = '".date('Y-m-
d',strtotime($_POST['StartDate']))."', EndDate = '".date('Y-m-
d',strtotime($_POST['EndDate']))."', Active = '".($_POST['Active']?"1"
:"0")."' WHERE StandingOrderID = '".$_POST['existingStandingOrder']."'
";
                                $updateStandingOrderResult = mysql_query($updateSt
andingOrderQuery);
                                if(mysql_error())
                                    $msg = "<p class='error'><strong>Error!</strong>
MySQL Error: <u>".mysql_error()."</u></p>";
                                {
                                    $updateTransactionsQuery = "UPDATE TRANSACTIONS
SET StandingOrderID = '".mysql_insert_id()."' WHERE OrderID = '".$_GET[
T['orderId']."'";
                                    $updateTransactionsResult = mysql_query($updateT
ransactionsQuery);
                                    $msg = "<p class='success'><strong>Success!</str
ong> Your standing order has been added.</p>";
                                }
                            } else {
                                $addStandingOrderQuery = "INSERT INTO STANDING_ORD
ERS (OrderID, Frequency, StartDate, EndDate, Active) VALUES ('".$_GET[
'orderId']."', '".$_frequency."', '".date('Y-m-
d',strtotime($_POST['StartDate']))."', '".date('Y-m-

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d',strtotime($_POST['EndDate']))."', '."($_POST['Active']?"1":"0")."'')
;";

    $addStandingOrderResult = mysql_query($addStanding
OrderQuery);

    if(mysql_error())
        $msg = "<p class='error'><strong>Error!</strong>
MySQL Error: <u>".mysql_error()."</u></p>";
    else
        $msg = "<p class='success'><strong>Success!</str
ong> Your standing order has been added.</p>";
    }
} else {
    $msg = "<p class='error'><strong>Error!</strong> Sta
rting, Ending Dates, and Frequency are all required fields. Please try
again.</p>";
}
}
$standingOrderInfoResult = mysql_query("SELECT * FROM ST
ANDING_ORDERS WHERE OrderID = '". $_GET['orderID']."'");
$standingOrderInfo = mysql_fetch_assoc($standingOrderInf
oResult);

if(!mysql_num_rows($standingOrderInfo)) {
    echo "<h2 class='h2'>Modify Standing Order</h2>";
} else {
    echo "<h2 class='h2'>Add A Standing Order from a Past
Order</h2>";
}
if($_POST['modifyOrder']) {
    echo $msg;
}
$userinfoResult = mysql_query("SELECT * FROM CUSTOMERS W
HERE CustomerID = '". $orderInfo['CustomerID']."'");
$userinfoRow = mysql_fetch_assoc($userinfoResult);
$transactionInfoQuery = "SELECT * FROM TRANSACTIONS WHER
E OrderID = '". $_GET['orderID']."'";
$transactionInfoResults = mysql_query($transactionInfoQ
uery);
$transactionInfo = mysql_fetch_assoc($transactionInfoRes
ults);

$basketItemsResult = mysql_query("SELECT * FROM BASKETS
WHERE CustomerID = '". $orderInfo['CustomerID']."' AND BasketID = '". $o
rderInfo['BasketID']."'");
$paymentTypeDetailsResult = mysql_query("SELECT * FROM P
AYMENT_TYPES WHERE CustomerID = '". $orderInfo['CustomerID']."' AND Pay
mentID='". $orderInfo['PaymentID']."'");
$paymentTypeDetailsRow = mysql_fetch_assoc($paymentTypeD
etailsResult);
echo "<div style='font-weight: bold; margin-
bottom: 10px; font-
size: 16px;'>Order # '". $_GET['orderID']."' Information</div>";
echo "<table cellpadding='1' cellspacing='2' style='text
-align: left; margin-left: 75px; width: 600px;'>";
echo "<tr><th>Item Description</th></tr>";
if(mysql_num_rows($basketItemsResult)) {
    $basketItemsRow = mysql_fetch_assoc($basketItemsResult
);
    $basketItems = explode(",", $basketItemsRow['ProductArr

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ay']]);

    $i = 0;
    foreach($basketItems as $productID) {
        $productsResult = mysql_query("SELECT * FROM PRODUCT
S WHERE ProductID = '". $productID. "'");
        while ($productRow = mysql_fetch_assoc($productsResu
lt)) {
            if($i % 2) $color = "background-
color: #F3F3F3"; else unset($color);
            echo "<tr><td style='$color'>". $productRow['Descri
ption']. "</td></tr>";
            }
            $i++;
        }
        if(!$basketItemsRow['ProductArray'] || trim(implode(",
", $basketItems), ",") == "")
            echo "<tr><td colspan='2' style='text-
align: center; font-style: italic; font-
size: 11px;'>No items exist in your basket!</td></tr></table>";
        else {
            $taxSubtotal = (0.06 * $taxableSubtotal);
            $deliveryCost = getDeliveryCost($orderInfo['Customer
ID']);

            echo "<tr><td colspan='2' style='font-
weight: bold; text-
align: right;'>Subtotal: ".toMoney($orderInfo['BasePrice'],true). "</td>
</tr>";

            echo "<tr><td colspan='2' style='font-
weight: bold; text-
align: right;'>Sales Tax: ".toMoney($orderInfo['SalesTax'],true). "</td>
</tr>";

            echo "<tr><td colspan='2' style='font-
weight: bold; text-
align: right;'>Delivery Fee: ".toMoney($orderInfo['DeliveryCharge'],tru
e). "</td></tr>";

            echo "<tr><td colspan='2' style='font-
weight: bold; text-align: right; color: #861E23'><span style='border-
top: 1px solid #000'>Grand Total: ".toMoney(($orderInfo['BasePrice'] +
$orderInfo['SalesTax'] + $orderInfo['DeliveryCharge']),true). "</span>
</td></tr>";

            echo "</table>";

            echo "<style>td { font-size: 12px; }</style>";
            echo "<table width='100%' cellpadding='0' cellspacin
g='2'><tr><td width='50%' valign='top'>";
            echo "<div style='font-weight: bold; margin-
bottom: 10px; font-size: 16px;'>Delivery Information</div>";
            echo "<table width='100%'>";
            echo "<tr>
                <td valign='top' style='text-
decoration: underline; padding-
bottom: 10px;' width='150'>Deliver To:</td>
                <td style='padding-
bottom: 10px;'>". $userinfoRow['AddressStreet']. "<br/>". $userinfoRow['A
ddressCity']. ", ". $userinfoRow['AddressState']. " ". $userinfoRow['Addre
ssZip']. "</td>

                </tr>";

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        echo "<tr>
            <td align='top' style='text-
decoration: underline; padding-bottom: 10px;'>Delivery Date:</td>
            <td style='padding-
bottom: 10px;'>".date("l, F jS",strtotime($orderInfo['DeliveryDate']))
        . "</select></td>
            </tr>";
        echo "<tr>
            <td align='top' style='text-
decoration: underline; padding-
bottom: 10px;'>Delivery Time Range:</td>
            <td style='padding-bottom: 10px;'>";
            echo "<input type='hidden' name='DeliveryTimeR
ange24' id='DeliveryTimeRange24' value='";
                if($orderInfo['DeliveryTimeRange'] == '9am -
1pm') echo "09";
                if($orderInfo['DeliveryTimeRange'] == '1pm -
5pm') echo "13";
                if($orderInfo['DeliveryTimeRange'] == '5pm -
9pm') echo "17";
            echo "'/>";
            echo $orderInfo['DeliveryTimeRange']. "</td>
            </tr>";
        echo "</table>";
        echo "</td><td width='50%' valign='top'>";
        echo "<div style='font-weight: bold; margin-
bottom: 10px; font-size: 16px;'>Billing Information</div>";
        echo "<table width='100%'>";
        echo "<tr>
            <td align='top' style='text-
decoration: underline; padding-
bottom: 10px;' width='150'>Payment Method:</td>
            <td style='padding-bottom: 10px;'>";
                if($paymentTypeDetailsRow['PaymentType'] ==
'Credit Card')
                    echo $paymentTypeDetailsRow['PaymentType']
        . " (" . substr($paymentTypeDetailsRow['PaymentInfo'],-4) . ") ";
                else
                    echo $paymentTypeDetailsRow['PaymentType']
        . " (" . toMoney($paymentTypeDetailsRow['PaymentInfo'],true) . ") ";
                echo "</td>
            </tr>";
            if($transactionInfo['DateTimePaid']) {
                echo "<tr><td align='top' style='text-
decoration: underline; padding-
bottom: 10px;'>Payment Recieved:</td><td style='padding-
bottom: 10px;'>".toMoney($transactionInfo['AmountPaid'],true) . " on "
        . date('m/d/y g:i a',strtotime($transactionInfo['DateTimePaid'])) . "</
td></tr>";
            } else {
                echo "<tr><td align='top' style='text-
decoration: underline; padding-
bottom: 10px;'>Payment Recieved:</td><td style='padding-
bottom: 10px;'>$0.00</td></tr>";
            }
        echo "<tr><td align='top' style='text-
decoration: underline; padding-

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bottom: 10px;';>View Bill:</td><td style='padding-
bottom: 10px;';><a href='/bills/'.${transactionInfo['BillNum']}.html' t
arget='_blank' class='mainlink'>View Bill</a></td></tr>";
        echo "</table>";
        echo "</tr></table>";
        echo "<form method='post' style='font-
size: 12px;';>";
                echo "<p><strong>Note:</strong> Adding a standing
order will create a recurring order that will be automatically charged
to your specified Payment Method. If the prices of any item have cha
nged, you will be charged the new price, without notification. If you
want to continue, select a starting and ending date, as well as a fre
quency of orders below. You may return later to modify these options,
or temporarily disable the standing order (for, when example, you go
on vacation).</p>";
                echo "<table cellpadding='10'>";
                echo "<tr>";
                echo "<td align='right'>Starting Date (mm/dd/yy):
<input type='text' name='StartDate' maxlength='8' size='8' value='".($
standingOrderInfo['StartDate']?date('m/d/y',strtotime($standingOrderIn
fo['StartDate'])):'").' /></td>";
                echo "<td align='left'>Ending Date (mm/dd/yy): <in
put type='text' name='EndDate' maxlength='8' size='8' value='".($stand
ingOrderInfo['EndDate']?date('m/d/y',strtotime($standingOrderInfo['End
Date'])):'").' /></td>";
                echo "</tr><tr>";
                if($standingOrderInfo['Frequency']) {
                        if($standingOrderInfo['Frequency'] % 30 === 0) {
                                $freqUnit = "Months";
                                $freqNum = $standingOrderInfo['Frequency'] / 3
0;
                                } else if($standingOrderInfo['Frequency'] % 7 ==
= 0) {
                                        $freqUnit = "Weeks";
                                        $freqNum = $standingOrderInfo['Frequency'] / 7
;
                                } else {
                                        $freqUnit = "Days";
                                        $freqNum = $standingOrderInfo['Frequency'] ;
                                }
                        }
                echo "<td align='right'>Frequency: Every <select n
ame='FrequencyNum'>
                                <option value=''></option>
                                <option value='1' ".($freqNum==1?"se
lected='selected'":"").">1</option>
                                <option value='2' ".($freqNum==2?"se
lected='selected'":"").">2</option>
                                <option value='3' ".($freqNum==3?"se
lected='selected'":"").">3</option>
                                <option value='4' ".($freqNum==4?"se
lected='selected'":"").">4</option>
                                <option value='5' ".($freqNum==5?"se
lected='selected'":"").">5</option>
                                <option value='6' ".($freqNum==6?"se
lected='selected'":"").">6</option>
                                <option value='7' ".($freqNum==7?"se

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lected='selected'":"").">7</option>
                                </select>
                                <select name='FrequencyUnit'>
                                    <option value=''></option>
                                    <option value='Days' ".($freqUnit=='
Days'?"selected='selected'":"").">Days</option>
                                    <option value='Weeks' ".($freqUnit=='
'Weeks'?"selected='selected'":"").">Weeks</option>
                                    <option value='Months' ".($freqUnit=
='Months'?"selected='selected'":"").">Months</option>
                                </select></td>";
                                echo "<td align='left'><input type='checkbox' name
='Active' ".(($standingOrderInfo['Active'] || !$standingOrderInfo['Sta
ndingOrderID'])?"checked='checked'":"")." /> Active?</td>";
                                echo "</tr>";
                                echo "<tr><td colspan='2' align='center'><input ty
pe='submit' name='modifyOrder' value='".($standingOrderInfo['StandingO
rderID']?"Update Standing Order":"Add Standing Order")."' /></td></tr>
";

                                echo "</table>";
                                if($standingOrderInfo['StandingOrderID'])
                                    echo "<input type='hidden' name='existingStandin
gOrder' value='".$standingOrderInfo['StandingOrderID']."' />";
                                echo "</form><br/>";
                            }
                        }
                    } else {
                        echo "<h2 class='h2'>Modify Standing Orders</h2>";
                        $standingOrderListResult = mysql_query("SELECT * FROM STAN
DING_ORDERS S WHERE (SELECT O.CustomerID FROM ORDERS O WHERE O.OrderID
= S.OrderID) = '". $SESSION['userinfo']['CustomerID']."'");
                        echo "<style> td { font-size: 13px } </style>";
                        echo "<table cellpadding='5' cellspacing='2'>";
                        echo "<tr><th align='center'>ID</th><th align='center'>Sta
rt Date</th><th align='center'>End Date</th><th>Frequency</th><th>Tota
l</th><th align='center'>Bill</th><th align='center'>Active?</th><th a
lign='center'>Modify Standing Order</th></tr>";
                        $i = 0;
                        if(!mysql_num_rows($standingOrderListResult))
                            echo "<tr><td colspan='8' align='center'><i>No Standing
Orders found</i></td></tr>";
                        while($standingOrderListRow = mysql_fetch_assoc($standingO
rderListResult)) {
                            $transactionInfoQuery = "SELECT * FROM TRANSACTIONS WHER
E OrderID = '". $standingOrderListRow['OrderID']."'";
                            $transactionInfoResults = mysql_query($transactionInfoQu
ery);
                            $transactionInfo = mysql_fetch_assoc($transactionInfoRes
ults);
                            $orderInfoQuery = "SELECT * FROM ORDERS WHERE OrderID =
'". $standingOrderListRow['OrderID']."'";
                            $orderInfoResults = mysql_query($orderInfoQuery);
                            $orderInfoRow = mysql_fetch_assoc($orderInfoResults);
                            if($standingOrderListRow['Frequency'] % 30 == 0)
                                $frequency = ($standingOrderListRow['Frequency'] / 30)
. " Months";

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```

        else if($standingOrderListRow['Frequency'] % 7 === 0)
            $frequency = ($standingOrderListRow['Frequency'] / 7)
        . " Weeks";
    else
        $frequency = $standingOrderListRow['Frequency'] . " Da
ys" ;
    if($i++ % 2) $color = "style='background-
color: #F3F3F3'"; else unset($color);
    echo "<tr>";
    echo "<td align='center' $color>".$standingOrderListRo
w['StandingOrderID']. "</td>";
    echo "<td align='center' $color>".date('m/d/y', strtot
ime($standingOrderListRow['StartDate'])). "</td>";
    echo "<td align='center' $color>".date('m/d/y', strtot
ime($standingOrderListRow['EndDate'])). "</td>";
    echo "<td $color>Every $frequency</td>";
    echo "<td $color>".toMoney(($orderInfoRow['BasePrice']
+ $orderInfoRow['SalesTax'] + $orderInfoRow['DeliveryCharge']),true).
"</td>";
    echo "<td align='center' $color><a class='mainlink' hr
ef='/bills/'. $transactionInfo['BillNum']. ".html" target='_blank'>View
Bill</a></td>";
    echo "<td align='center' $color>".($standingOrderListR
ow['Active']?"Yes":"No"). "</td>";
    echo "<td align='center' $color>
    <form method='get'>
        <input type='hidden' name='orderId' value='". $st
andingOrderListRow['OrderID']. "' />
        <input type='submit' value='Modify Standing Orde
r' />
    </form>
    </td>";
    echo "</tr>";
}
echo "</table>";
echo "<h2 class='h2'>Add A Standing Order from a Past Orde
r</h2>";

$orderInfoListResult = mysql_query("SELECT * FROM ORDERS W
HERE CustomerID = '". $ _SESSION['userinfo']['CustomerID']. "' AND OrderI
D NOT IN (SELECT OrderID FROM STANDING_ORDERS) ORDER BY DeliveryDate D
ESC, OrderID DESC;");
echo "<style> td { font-size: 13px } </style>";
echo "<table cellpadding='5' cellspacing='2'>";
echo "<tr><th align='center'>ID</th><th>Delivery Date/Time
</th><th>Order Payment Method</th><th align='center'>Total</th><th ali
gn='center'>Bill</th><th align='center'>Make Standing Order</th></tr>"
;

$i = 0;
if(!mysql_num_rows($orderInfoListResult))
    echo "<tr><td colspan='6' align='center'><i>No Previous
Orders found</i></td></tr>";
while($orderInfoListRow = mysql_fetch_assoc($orderInfoList
Result)) {
    $transactionInfoQuery = "SELECT * FROM TRANSACTIONS WHER
E OrderID = '". $orderInfoListRow['OrderID']. "'";
    $transactionInfoResults = mysql_query($transactionInfoQu
ery);

```

```

        $transactionInfo = mysql_fetch_assoc($transactionInfoRes
ults);
        $paymentTypeDetailsResult = mysql_query("SELECT * FROM P
AYMENT_TYPES WHERE CustomerID = '". $_SESSION['userinfo']['CustomerID']
.'" AND PaymentID='". $orderInfoListRow['PaymentID']."'");
        $paymentTypeDetailsRow = mysql_fetch_assoc($paymentTypeD
etailsResult);
        if($i++ % 2) $color = "style='background-
color: #F3F3F3'"; else unset($color);
        echo "<tr>";
        echo "<td align='center' $color>". $orderInfoListRow['O
rderID']."'</td>";
        if($transactionInfo['DateTimeArrived'])
            echo "<td $color>".date('m/d/Y g:i a', strtotime($tr
ansactionInfo['DateTimeArrived']))."</td>";
        else
            echo "<td $color>".date('m/d/Y',strtotime($orderInfo
ListRow['DeliveryDate']))." ". $orderInfoListRow['DeliveryTimeRange']."'
</td>";
        if($paymentTypeDetailsRow['PaymentType'] == 'Credit Ca
rd')
            echo "<td $color>". $paymentTypeDetailsRow['PaymentTy
pe']."' (".$substr($paymentTypeDetailsRow['PaymentInfo'],-4).")</td>";
        else
            echo "<td $color>". $paymentTypeDetailsRow['PaymentTy
pe']."' (".$toMoney($paymentTypeDetailsRow['PaymentInfo'],true).")</td>";
        ;
        echo "<td $color>".toMoney(($orderInfoListRow['BasePri
ce'] + $orderInfoListRow['SalesTax'] + $orderInfoListRow['DeliveryChar
ge']),true)."</td>";
        echo "<td align='center' $color><a class='mainlink' hr
ef='/bills/'. $transactionInfo['BillNum']."'<html' target='_blank'>View
Bill</a></td>";
        echo "<td align='center' $color>
        <form method='get'>
            <input type='hidden' name='orderID' value='". $or
derInfoListRow['OrderID']."'>
            <input type='submit' value='Make Standing Order'
        />
        </form>
        </td>";
        echo "</tr>";
    }
    echo "</table>";
}
?>
</div>
<div id="footer">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egroceri
es/includes/footer.inc.php'); ?>
</div>
</div>
</body>
</html>

```

Transaction History (transactionhistory.php)

```
<? include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/global.inc.php'); ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
    <title>eGroceries</title>
    <link rel="stylesheet" href="/styles/main.css" type="text/css">
  </head>
  <body onload='init()' onunload='GUnload()'>
    <div id="frame">
      <div id="header">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/header.inc.php'); ?>
      </div>
      <div id="nav">
        <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/nav.inc.php'); ?>
      </div>
      <div id="content">
        <h1>My eGroceries Account - Transaction History</h1>
        <?php
          if(!$_SESSION['userinfo']) {
            echo "<p class='error'><strong>Error!</strong> You are not logged in! Please wait to be redirected...</p><meta http-equiv='REFRESH' content='0;url=signin.php'>";
          } else {
            echo "<h2 class='h2'>Search Transaction History</h2>";
            echo "<form method='get'>";
            echo "Start Date (mm/dd/yy): <input type='text' name='startDate' maxlength='8' size='8' value='".$_GET['startDate']."' />&nbsp;&nbsp;&nbsp;p;&nbsp;&nbsp;&nbsp;";
            echo "End Date (mm/dd/yy): <input type='text' name='endDate' maxlength='8' size='8' value='".$_GET['endDate']."' />&nbsp;&nbsp;&nbsp;p;&nbsp;&nbsp;&nbsp;";
            echo "<input type='submit' value='Search Transactions' />";
            echo "</form>";
            if($_GET['startDate'] && $_GET['endDate']) {
              $startDate = date('Y-m-d',strtotime($_GET['startDate']));
              $endDate = date('Y-m-d',strtotime($_GET['endDate']));
              echo "<h2 class='h2'>Search Results</h2>";
              echo "<p>Click on a row to visit the Past Orders detail page (in a new window).</p>";
              echo "<style> td { font-size: 11px; } </style>";
              echo "<table cellpadding='5' cellspacing='2'>";
              echo "<tr><th align='center'>ID</th><th>Ordered On</th><th>Dispatched At</th><th>Arrived At</th><th>Returned At</th><th>Paid On</th><th align='center'>Total</th><th align='center'>Paid</th></tr>";
              $i = 0;
              $transactionInfoListQuery = "SELECT * FROM TRANSACTIONS T WHERE (DateTimeOrdered >= '$startDate' OR DateTimeDispatched >= '$startDate' OR DateTimeArrived >= '$startDate' OR DateTimeReturned >= '$sta
```

```

rtDate' OR DateTimePaid >= '$startDate') AND (DateTimeOrdered <= '$endDate' OR DateTimeDispatched <= '$endDate' OR DateTimeArrived <= '$endDate' OR DateTimeReturned <= '$endDate' OR DateTimePaid <= '$endDate')
AND (SELECT O.CustomerID FROM ORDERS O WHERE O.OrderID = T.OrderID) =
'".$_SESSION['userinfo']['CustomerID']. "'";
    $transactionInfoListResult = mysql_query($transactionInfoListQuery);
    while($transactionInfoListRow = mysql_fetch_assoc($transactionInfoListResult)) {
        $orderInfoQuery = "SELECT * FROM ORDERS WHERE CustomerID = '".$_SESSION['userinfo']['CustomerID']."' AND OrderID = '".$_transactionInfoListRow['OrderID']."'";
        $orderInfoResult = mysql_query($orderInfoQuery);
        $orderInfoRow = mysql_fetch_assoc($orderInfoResult);
        if($i++ % 2) $color = "style='background-color: #F3F3F3'"; else unset($color);
        echo "<tr onClick=\"window.open('pastorders.php?orderID=".$_transactionInfoListRow['OrderID']."')\" style='cursor: pointer'>";
        echo "<td align='center' $color>".$_transactionInfoListRow['OrderID']. "</td>";
        if($transactionInfoListRow['DateTimeOrdered'])
            echo "<td $color>".date('m/d/y g:ia', strtotime($transactionInfoListRow['DateTimeOrdered'])). "</td>";
        else
            echo "<td $color>N/A</td>";
        if($transactionInfoListRow['DateTimeDispatched'])
            echo "<td $color>".date('m/d/y g:ia', strtotime($transactionInfoListRow['DateTimeDispatched'])). "</td>";
        else
            echo "<td $color>N/A</td>";
        if($transactionInfoListRow['DateTimeArrived'])
            echo "<td $color>".date('m/d/y g:ia', strtotime($transactionInfoListRow['DateTimeArrived'])). "</td>";
        else
            echo "<td $color>N/A</td>";
        if($transactionInfoListRow['DateTimeReturned'])
            echo "<td $color>".date('m/d/y g:ia', strtotime($transactionInfoListRow['DateTimeReturned'])). "</td>";
        else
            echo "<td $color>N/A</td>";
        if($transactionInfoListRow['DateTimePaid'])
            echo "<td $color>".date('m/d/y g:ia', strtotime($transactionInfoListRow['DateTimePaid'])). "</td>";
        else
            echo "<td $color>N/A</td>";
        echo "<td $color>".toMoney(($orderInfoRow['BasePrice'] + $orderInfoRow['SalesTax'] + $orderInfoRow['DeliveryCharge']),true). "</td>";
        if($transactionInfoListRow['AmountPaid'])
            echo "<td $color>".toMoney($transactionInfoListRow['AmountPaid'],true). "</td>";
        else
            echo "<td $color>$0.00</td>";
        echo "</tr>";
    }
    echo "</table>";
}

```

```

    }
    ?>
</div>
<div id="footer">
    <?php include('/kunden/homepages/25/d123903211/htdocs/egroceries/
includes/footer.inc.php'); ?>
</div>
</div>
</body>
</html>

```

Report Data Output Page (report_data.php)

```

<?php
include('/kunden/homepages/25/d123903211/htdocs/egroceries/includes/
global.inc.php');
if($_GET['report'] == 'ABVR') {
    ?>
    <graph numdivlines='6' lineThickness='2' showValues='0' numVDivLin
es='10' formatNumberScale='1' rotateNames='1' decimalPrecision='2' anc
horRadius='2' anchorBgAlpha='0' numberPrefix='$' divLineAlpha='30' sho
wAlternateHGridColor='1' yAxisMinValue='0' shadowAlpha='50' >
        <categories >
            <category Name='12-1am' />
            <category Name='1-2am' />
            <category Name='2-3am' />
            <category Name='3-4am' />
            <category Name='4-5am' />
            <category Name='5-6am' />
            <category Name='6-7am' />
            <category Name='7-8am' />
            <category Name='8-9am' />
            <category Name='9-10am' />
            <category Name='10-11am' />
            <category Name='11-12pm' />
            <category Name='12-1pm' />
            <category Name='1-2pm' />
            <category Name='2-3pm' />
            <category Name='3-4pm' />
            <category Name='4-5pm' />
            <category Name='5-6pm' />
            <category Name='6-7pm' />
            <category Name='7-8pm' />
            <category Name='8-9pm' />
            <category Name='9-10pm' />
            <category Name='10-11pm' />
            <category Name='11-12am' />
        </categories>
        <dataset seriesName='Today' color='FF8B00' anchorBorderColor='FF8B
00' anchorRadius='4'>
            <?
                for($i = 0; $i < 24; $i++) {
                    $hourSumQuery = "SELECT (SUM(BasePrice)/COUNT(OrderID)) AS A
verage FROM (SELECT DISTINCT O.OrderID, O.BasePrice, O.SalesTax, O.Del
iveryCharge FROM ORDERS O, TRANSACTIONS T WHERE O.OrderID = T.OrderID
AND T.DateTimeOrdered BETWEEN '".date('Y-m-

```

```

d H:i:s',mktime($i, 0, 0))." AND '".date('Y-m-
d H:i:s',mktime(($i+1), 0, 0))."') AS RES";
    $hourSumResult = mysql_query($hourSumQuery);
    $hourSum = mysql_fetch_assoc($hourSumResult);
    echo "<set value='".($hourSum['Average']?str_replace(",","",
toMoney($hourSum['Average'],false)):"0")." />";
}
?>
</dataset>

<dataset seriesName='Yesterday' color='00B454' anchorBorderColor='
00B454' anchorRadius='4'>
    <?
        for($i = 0; $i < 24; $i++) {
            $hourSumQuery = "SELECT (SUM(BasePrice)/COUNT(OrderID)) AS A
verage FROM (SELECT DISTINCT O.OrderID, O.BasePrice, O.SalesTax, O.Del
iveryCharge FROM ORDERS O, TRANSACTIONS T WHERE O.OrderID = T.OrderID
AND T.DateTimeOrdered BETWEEN '".date('Y-m-
d H:i:s',mktime($i, 0, 0, date('n'), date('j') -
1))." AND '".date('Y-m-
d H:i:s',mktime(($i+1), 0, 0, date('n'), date('j') - 1))."') AS RES";
            $hourSumResult = mysql_query($hourSumQuery);
            $hourSum = mysql_fetch_assoc($hourSumResult);
            echo "<set value='".($hourSum['Average']?str_replace(",","",
toMoney($hourSum['Average'],false)):"0")." />";
        }
    ?>
</dataset>

<dataset seriesName='Last Week' color='086CA2' anchorBorderColor='
086CA2' anchorRadius='4'>
    <?
        for($i = 0; $i < 24; $i++) {
            $average = 0;
            for($j = 1; $j <= 7; $j++) {
                $hourSumQuery = "SELECT (SUM(BasePrice)/COUNT(OrderID)) AS
Average FROM (SELECT DISTINCT O.OrderID, O.BasePrice, O.SalesTax, O.D
eliveryCharge FROM ORDERS O, TRANSACTIONS T WHERE O.OrderID = T.OrderI
D AND T.DateTimeOrdered BETWEEN '".date('Y-m-
d H:i:s',mktime($i, 0, 0, date('n'), date('j') -
$j))." AND '".date('Y-m-
d H:i:s',mktime(($i+1), 0, 0, date('n'), date('j') - $j))."') AS RES";
                $hourSumResult = mysql_query($hourSumQuery);
                $hourSum = mysql_fetch_assoc($hourSumResult);
                $average += $hourSum['Average'];
            }
            $average /= 7;
            echo "<set value='".($average?str_replace(",","",toMoney($av
erage,false)):"0")." />";
        }
    ?>
</dataset>
</graph>
<?
}

```

```
?>
```

6.2 Secondary/Helper Page Code

Database Connection Include File (database.inc.php)

```
<?php
$link = mysql_connect('db2675.perfora.net', 'dbo348384459', '*****');
if (!$link) {
    die('Could not connect: ' . mysql_error());
}
mysql_select_db('db348384459', $link);
?>
```

Page Footer Include File (footer.inc.php)

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Common Functions Include File (functions.inc.php)

```
<?
// Convert a float to a price
function toMoney($value, $showDollar = true) {
    setlocale(LC_MONETARY, 'en_US');
    if($showDollar)
        return money_format('%.2n', $value);
    else
        return money_format('%!.2n', $value);
}

// Find the distance from a customer address to return the price of
the assigned route's delivery fee
function getDeliveryCost($customerID) {
    $userAddressQuery = "SELECT AddressStreet, AddressCity, AddressState, AddressZip FROM CUSTOMERS WHERE CustomerID = '$customerID'";
    $userAddressResult = mysql_query($userAddressQuery);
    $userAddressRow = mysql_fetch_assoc($userAddressResult);
    $userAddress = str_replace(" ", "+", $userAddressRow['AddressStreet'] . " " . $userAddressRow['AddressCity'] . " " . $userAddressRow['AddressState'] . " " . $userAddressRow['AddressZip']);
    $warehouseAddress = "38.98989,-76.936226";
    $googleMapsAddress = "http://maps.google.com/maps?q=from+" . $warehouseAddress . "&to+" . $userAddress . "&output=kml";
}
```

```

    $googleMapsXML = file_get_contents($googleMapsAddress);
    $matches = array();
    preg_match('/Distance: (.*)&#160;/i', $googleMapsXML, $matches);
    $distance = $matches[1];
    $distancePriceQuery = "SELECT Price FROM DELIVERY_ROUTES WHERE Low
erRange < $distance AND UpperRange >= $distance;";
    $distancePriceResult = mysql_query($distancePriceQuery);
    $distancePriceRow = mysql_fetch_assoc($distancePriceResult);
    return $distancePriceRow['Price'];
}

// Find the delivery route for a customers address
function getDeliveryRoute($customerID) {
    $userAddressQuery = "SELECT AddressStreet, AddressCity, AddressSta
te, AddressZip FROM CUSTOMERS WHERE CustomerID = '$customerID';";
    $userAddressResult = mysql_query($userAddressQuery);
    $userAddressRow = mysql_fetch_assoc($userAddressResult);
    $userAddress = str_replace(" ", "+", $userAddressRow['AddressStreet']
) . ", " . $userAddressRow['AddressCity'] . " " . $userAddressRow['Add
ressState'] . ", " . $userAddressRow['AddressZip'];
    $warehouseAddress = "38.98989,-76.936226";
    $googleMapsAddress = "http://maps.google.com/maps?q=from+".$wareho
useAddress."&to+".$userAddress."&output=kml";
    $googleMapsXML = file_get_contents($googleMapsAddress);
    $matches = array();
    preg_match('/Distance: (.*)&#160;/i', $googleMapsXML, $matches);
    $distance = $matches[1];
    $distanceRouteQuery = "SELECT RouteID FROM DELIVERY_ROUTES WHERE L
owerRange < $distance AND UpperRange >= $distance;";
    $distanceRouteResult = mysql_query($distanceRouteQuery);
    $distanceRouteRow = mysql_fetch_assoc($distanceRouteResult);
    return $distanceRouteRow['RouteID'];
}

// Create the static HTML Bill for an order
function makeBill($billNum, $orderId) {
    $orderInfoResult = mysql_query("SELECT * FROM ORDERS WHERE OrderID
= '". $orderId. "'");
    $orderInfo = mysql_fetch_assoc($orderInfoResult);
    $userInfoResult = mysql_query("SELECT * FROM CUSTOMERS WHERE Custo
merID = '". $orderInfo['CustomerID']. "'");
    $userInfoRow = mysql_fetch_assoc($userInfoResult);
    $paymentTypeDetailsResult = mysql_query("SELECT * FROM PAYMENT_TYP
ES WHERE CustomerID = '". $orderInfo['CustomerID']. "' AND PaymentID='".
$orderInfo['PaymentID']. "'");
    $paymentTypeDetailsRow = mysql_fetch_assoc($paymentTypeDetailsResu
lt);
    $basketItemsResult = mysql_query("SELECT * FROM BASKETS WHERE Cust
omerID = '". $orderInfo['CustomerID']. "' AND BasketID = '". $orderInfo['
BasketID']. "'");
    $basketItemsRow = mysql_fetch_assoc($basketItemsResult);

    $basketItems = explode(",", $basketItemsRow['ProductArray']);
    foreach($basketItems as $productID) {
        $productsResult = mysql_query("SELECT (SELECT CATEGORY FROM PROD
UCT_CATEGORIES WHERE CATEGORY_IDX = cat) AS cat, Description, Manufact

```

```

urer, SaleStatus, SalePrice, Price FROM PRODUCTS WHERE ProductID = '".
$productID.'"");
    while ($productRow = mysql_fetch_assoc($productsResult)) {
        $products[$productRow['cat']][] = $productRow;
    }
}
$i = 0; $productHTML = "";
foreach($products as $cat => $array) {
    if($i++ % 2) $color = "background-
color: #EEE"; else unset($color);
    $productHTML .= "<tr><td style='font-
weight: bold; $color' colspan='4'>$cat</td></tr>";
    foreach($array as $row) {
        if($i++ % 2) $color = "background-
color: #EEE"; else unset($color);
        $productHTML .= "<tr><td style='$color'>&nbsp;&nbsp;&nbsp;&nbsp;". $r
ow['Description'] . "</td><td style='$color' align='right'>". ($row['Sale
Status']?"SALE!</td><td style='$color' align='right' width='50'>" . to
Money($row['SalePrice'],true):"&nbsp;&nbsp;&nbsp;&nbsp;</td><td style='$color' align='ri
ght' width='50'>" . toMoney($row['Price'],true)) . "</td></tr>";
    }
}
if($paymentTypeDetailsRow['PaymentType'] == 'Credit Card')
    $paymentInfo = $paymentTypeDetailsRow['PaymentType'] . " (" . substr
($paymentTypeDetailsRow['PaymentInfo'],-4) . ")";
else
    $paymentInfo = $paymentTypeDetailsRow['PaymentType'] . " (" . toMone
y($paymentTypeDetailsRow['PaymentInfo'],true) . ")";
$deliveryDate = date("l, F jS",strtotime($orderInfo['DeliveryDate'
]));
$subtotal = toMoney($orderInfo['BasePrice'],true);
$salesTax = toMoney($orderInfo['SalesTax'],true);
$deliveryFee = toMoney($orderInfo['DeliveryCharge'],true);
$total = toMoney(($orderInfo['BasePrice'] + $orderInfo['SalesTax']
+ $orderInfo['DeliveryCharge']),true);
if($paymentTypeDetailsRow['PaymentType'] == 'Credit Card')
    $extraInfoHTML = "<br/>
        <table width='650' cellpadding='5' cellspacing='0' sty
le='border: 1px solid #000;'>
        <tr height='35'>
            <td style='border-right: 1px solid #000; font-
weight: bold' width='80' align='center'>Driver Tip:</td>
            <td style='border-
right: 1px solid #000;'>&nbsp;&nbsp;&nbsp;&nbsp;</td>
            <td style='border-right: 1px solid #000; font-
weight: bold' width='80' align='center'>Signature:</td>
            <td width='50%'>&nbsp;&nbsp;&nbsp;&nbsp;</td>
        </tr>
        </table>";

$html = <<< EOF
<!DOCTYPE html PUBLIC "-
//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml11/DT
D/xhtml11-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-

```

```

8" />
    <title>Bill Number {$billNum} for Order ID {$orderID}</title>
</head>
<body>
    <style type="text/css">
        body { margin: 0px; padding: 5px; font-
family: Verdana, Geneva, sans-serif; font-size: 12px; }
        th { background-color: #ccc; border-bottom: 1px solid #000; }
        .border { border-right: 1px solid #000; }
    </style>
    <table width="650" cellpadding='0' cellspacing='0'>
        <tr>
            <td valign='top' width='50%' rowspan='4'><img src='/gr/logo.jp
g' /></td>
            <td valign='top' width='21.5%' style='font-
weight: bold;'>&nbsp;</td>
            <td valign='top' width='28.5%'>&nbsp;</td>
        </tr>
        <tr>
            <td valign='top' style='font-weight: bold; padding-
left: 25px'>Customer ID:</td>
            <td valign='top'>{$orderInfo['CustomerID']}</td>
        </tr>
        <tr>
            <td valign='top' style='font-weight: bold; padding-
left: 25px'>Order ID:</td>
            <td valign='top'>{$orderID}</td>
        </tr>
        <tr>
            <td valign='top' style='font-weight: bold; padding-
left: 25px'>Bill Number:</td>
            <td valign='top'>{$billNum}</td>
        </tr>
    </table>
    <br/>
    <table width="650" cellpadding='3' cellspacing='0' style='border:
1px solid #000;'>
        <tr>
            <th colspan='2' width='50%' class='border'>Delivery Informatio
n</th>
            <th colspan='3' width='50%'>Billing Information</th>
        </tr>
        <tr>
            <td valign='top' style='font-
weight: bold;'>Delivery Address:</td>
            <td valign='top' class='border'>{$userinfoRow['FirstName']} {$
userinfoRow['LastName']}</td>
            <td valign='top' style='font-
weight: bold;'>Payment Method:</td>
            <td valign='top' colspan='2'>{$paymentInfo}</td>
        </tr>
        <tr>
            <td valign='top' style='font-weight: bold;'>&nbsp;</td>
            <td valign='top' class='border'>{$userinfoRow['AddressStreet']
}</td>
            <td valign='top' style='font-weight: bold;'>Payment Info:</td>
            <td valign='top' colspan='2'>Subtotal:</td>
        </tr>
    </table>

```

```

        <td valign='top' align='right'>{$subtotal}</td>
    </tr>
    <tr>
        <td valign='top' style='font-weight: bold;'>&nbsp;</td>
        <td valign='top' class='border'>{$userinfoRow['AddressCity']},
        {$userinfoRow['AddressState']} {$userinfoRow['AddressZip']}</td>
        <td valign='top'>&nbsp;</td>
        <td valign='top'>Sales Tax:</td>
        <td valign='top' align='right'>{$salesTax}</td>
    </tr>
    <tr>
        <td valign='top' style='font-
weight: bold;'>Delivery Date:</td>
        <td valign='top' class='border'>{$deliveryDate}</td>
        <td valign='top'>&nbsp;</td>
        <td valign='top'>Delivery Fee:</td>
        <td valign='top' align='right'>{$deliveryFee}</td>
    </tr>
    <tr>
        <td valign='top' style='font-
weight: bold;'>Delivery Time Range:</td>
        <td valign='top' class='border'>Between {$orderInfo['DeliveryT
imeRange']}</td>
        <td valign='top' style='background-color: #EEE'>&nbsp;</td>
        <td valign='top' style='background-
color: #EEE'>Grand Total:</td>
        <td valign='top' align='right' style='background-
color: #EEE'>{$total}</td>
    </tr>
</table>
<br/>
<table width="650" cellpadding="3" cellspacing="0" style='border:
1px solid #000;'>
    <tr>
        <th align='left'>Product Description</th><th colspan='2' align
='right'>Price</th>
    </tr>
    <td colspan='3'>{$productHTML}</td>
    <td colspan='3'>{$extraInfoHTML}</td>
</table>
</body>
</html>
EOF;

    $fp = fopen('bills/'.$billNum.'.html', 'w');
    fwrite($fp, $html);
    fclose($fp);
}

// Create the static HTML Ticket for an order
function makeTicket($ticketNum, $orderId) {
    $orderInfoResult = mysql_query("SELECT * FROM ORDERS WHERE OrderID
= '".$orderId."'");
    $orderInfo = mysql_fetch_assoc($orderInfoResult);
    $userinfoResult = mysql_query("SELECT * FROM CUSTOMERS WHERE Custo
merID = '".$orderInfo['CustomerID']."'");
    $userinfoRow = mysql_fetch_assoc($userinfoResult);

```



```
//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
    <title>Ticket Number { $ticketNum } for Order ID { $orderID }</title>
  </head>
  <body>
    <style type="text/css">
      body { margin: 0px; padding: 5px; font-family: Verdana, Geneva, sans-serif; font-size: 12px; }
      th { background-color: #ccc; border-bottom: 1px solid #000; }
      .border { border-right: 1px solid #000; }
    </style>
    <table width="650" cellpadding="0" cellspacing="0">
      <tr>
        <td valign="top" width="50%" rowspan="4"></td>
        <td valign="top" width="21.5%" style="font-weight: bold;">&nbsp;</td>
        <td valign="top" width="28.5%">&nbsp;</td>
      </tr>
      <tr>
        <td valign="top" style="font-weight: bold; padding-left: 25px">Customer ID:</td>
        <td valign="top">{ $orderInfo['CustomerID'] }</td>
      </tr>
      <tr>
        <td valign="top" style="font-weight: bold; padding-left: 25px">Order ID:</td>
        <td valign="top">{ $orderID }</td>
      </tr>
      <tr>
        <td valign="top" style="font-weight: bold; padding-left: 25px">Ticket Num:</td>
        <td valign="top">{ $ticketNum }</td>
      </tr>
    </table>
    <br/>
    <table width="650" cellpadding="3" cellspacing="0" style="border: 1px solid #000;">
      <tr>
        <th colspan="2" width="50%" class="border">Delivery Information</th>
        <th colspan="3" width="50%">Billing Information</th>
      </tr>
      <tr>
        <td colspan="2" style="font-weight: bold;">Delivery Address:</td>
        <td colspan="3" class="border">{ $userinfoRow['FirstName'] } { $userinfoRow['LastName'] }</td>
      </tr>
      <tr>
        <td colspan="2" style="font-weight: bold;">Payment Method:</td>
        <td colspan="3">{ $paymentInfo }</td>
      </tr>
    </table>
```


[illegible]

```

        // Message customers who have purchased this product in the past
        $basketSearchQuery = "SELECT CustomerID FROM BASKETS WHERE ProductArray LIKE '%" . $products[$cat_subcat][$randomID][0] . "%'";
        $basketSearchResult = mysql_query($basketSearchQuery);
        while ($basketSearchRow = mysql_fetch_assoc($basketSearchResult)) {
            $customersToEmail[$basketSearchRow['CustomerID']][] = $products[$cat_subcat][$randomID][0];
        }
        $numProductsChanged += $numToSale;
    }
    foreach($customersToEmail as $customerID => $productArray) {
        $customerInfoQuery = "SELECT * FROM CUSTOMERS WHERE CustomerID = '$customerID'";
        $customerInfoResult = mysql_query($customerInfoQuery);
        $customerInfo = mysql_fetch_assoc($customerInfoResult);
        $message = "Dear " . $customerInfo['FirstName'] . " " . $customerInfo['LastName'] . ",\n\nCheck out the sales this week of the following items that you have purchased in the past!\n\n";
        foreach($productArray as $productID) {
            $productInfoQuery = "SELECT * FROM PRODUCTS WHERE ProductID = '$productID'";
            $productInfoResult = mysql_query($productInfoQuery);
            $productInfo = mysql_fetch_assoc($productInfoResult);
            $message .= "<a href='http://egroceries.antiemotion.com/shop.php?cat=" . $productInfo['cat'] . "&subcat=" . $productInfo['subcat'] . "#" . $productInfo['ProductID'] . "' target='_blank'>" . $productInfo['Description'] . " (SALE PRICE: " . toMoney($productInfo['SalePrice'],true) . " off of " . toMoney($productInfo['Price'],true) . ")</a>\n";
        }
        messageCustomer($customerID, $message);
    }
    return $numProductsChanged;
}

// Function to send an email message to customer
function messageCustomer($customerID, $message) {
    $customerInfoQuery = "SELECT Email FROM CUSTOMERS WHERE CustomerID = '$customerID'";
    $customerInfoResult = mysql_query($customerInfoQuery);
    $customerInfo = mysql_fetch_assoc($customerInfoResult);
    $email = $customerInfo['Email'];

    // Here, the function would normally use php's mail() function to send
    // the message $message to the email address $email
    echo "<hr><strong>Email To:</strong> $email<br><strong>Message:</strong> $message<hr>";
}
?>

```

Global Page Code Include File (global.inc.php)

<?

```

    session_start();
    include('/kunden/homepages/25/d123903211/htdocs/egroceries/include
s/database.inc.php');
    include('/kunden/homepages/25/d123903211/htdocs/egroceries/include
s/functions.inc.php');
    if($_SESSION['userinfo']) {
        $sessionInfoResult = mysql_query("SELECT * FROM CUSTOMERS WHER
E CustomerID = '". $_SESSION['userinfo']['CustomerID']."'");
        $_SESSION['userinfo'] = mysql_fetch_assoc($sessionInfoResult);
    }
?>

```

Page Header Include File (header.inc.php)

```

<div id="homelink" onClick="window.location='/index.php'">&nbsp;  </div>
<?php
    if($_SESSION['userinfo']) {
        echo "<i>Welcome " . $_SESSION['userinfo']['FirstName'] . " " . $_SE
SSION['userinfo']['LastName'] . "!</i> | ";
        $numBasketItemsResult = mysql_query("SELECT * FROM BASKETS WHE
RE CustomerID = '". $_SESSION['userinfo']['CustomerID']."' AND Active =
'1'");
        if(mysql_num_rows($numBasketItemsResult)) {
            $numBasketItemsRow = mysql_fetch_assoc($numBasketItemsResu
lt);
            if($numBasketItemsRow['ProductArray']) {
                $numBasketItems = count(explode(",",$numBasketItemsRow
['ProductArray']));
            } else {
                $numBasketItems = 0;
            }
        } else {
            $numBasketItems = 0;
        }
        if($_POST['productToAdd']) $numBasketItems++;
        if($_POST['productToRemove']) { $numBasketItems--
; if($numBasketItems <0) { $numBasketItems = 0; } }
        echo "<a href='search.php'>Search</a> | <a href='basket.php'>V
iew Basket (<b>". $numBasketItems . "</b></a> | <a href='checkout.php'>C
heckout</a> | <a href='account.php'>My Account</a>";
        if($_SESSION['userinfo']['AdminUser'])
            echo " | <a href='admin.php' style='font-
weight: bold'>Admin</a>";
            echo " | <a href='logout.php'>Log Out</a>";
        } else {
            echo "<a href='search.php'>Search</a> | <a href='signin.php'>S
ign In</a> | <a href='register.php'>Register</a>";
        }
    }
?>

```

Page Navigation Include File (nav.inc.php)

```

<h1><a href='/shop.php' class="navheaderlink">Shop By Aisle</a></h1>
<?php
    echo "<ul class='main_aisle'>";
    $catResult = mysql_query("SELECT * FROM PRODUCT_CATEGORIES");

```

```

        while ($catRow = mysql_fetch_assoc($catResult)) {
            if($_GET['cat'] == $catRow['CATEGORY_IDX']) $catStyle = "color
: #D2905E; border-bottom: 1px #D2905E dashed;"; else unset($catStyle);
            echo "<li><a href='shop.php?cat='". $catRow['CATEGORY_IDX']."' s
tyle='$catStyle'>". $catRow['CATEGORY'] . "</a></li>";
            if($_GET['cat'] == $catRow['CATEGORY_IDX']) {
                echo "<ul class='sub_aisle'>";
                $subCatResult = mysql_query("SELECT * FROM PRODUCT_SUB_CAT
EGORIES WHERE CATEGORY_IDX = '". $catRow['CATEGORY_IDX']."'");
                while ($subCatRow = mysql_fetch_assoc($subCatResult)) {
                    if($_GET['subcat'] == $subCatRow['SUB_CATEGORY_IDX'])
$subCatStyle = "color: #3A817C; border-
bottom: 1px #3A817C dashed;"; else unset($subCatStyle);
                    echo "<li><a href='shop.php?cat='". $catRow['CATEGORY_ID
X']."'&subcat='". $subCatRow['SUB_CATEGORY_IDX']."' style='$subCatStyle'>
". $subCatRow['CATEGORY'] . "</a></li>";
                }
                echo "</ul>";
            }
        }
        echo "</ul>";
    ?>

```

6.3 One Time Database Population Scripts Source Code

Safeway Grocery Delivery Site Scraper

```

<?php
error_reporting(E_ALL);
$files = scandir('C:\\inetpub\\wwwroot\\safeway');
$products = array();
$counter = 0;
foreach($files as $file) {
    if(is_dir($file) && $file != "." && $file != "..") {
        $dir = 'C:\\inetpub\\wwwroot\\safeway\\'.$file;
        $files2 = scandir($dir);
        foreach($files2 as $file2) {
            if($file2 != "." && $file2 != "..") {
                $dir2 = 'C:\\inetpub\\wwwroot\\safeway\\'.$file.'\\'.$file2;
                $files3 = scandir($dir2);
                foreach($files3 as $file3) {
                    if($file3 != "." && $file3 != "..") {
                        $thisfile = $dir2 = 'C:\\inetpub\\wwwroot\\safeway\\'.$f
ile.'\\'.$file2.'\\'.$file3;
                        preg_match_all('/RenderProductRow\\([^(^)]*)\\)/i', file_ge
t_contents($thisfile), $matches);
                        $theseproducts = array();
                        foreach($matches[1] as $match) {
                            $thisproduct = explode(",", $match);
                            $manufacturermatches = array();
                        }
                        $opts = array(
                            'http'=>array(
                                'method'=>"GET",

```

```
'header'=>"Cookie: s_pers=%20s_evar38cvp%3D%255B%255B'Direct%252520Load'%252C'1290389618392'%255D%255D%7C1448156018392%3B%20s_evar36cvp%3D%255B%255B'Direct%252520Load'%252C'1290389618393'%255D%255D%7C1448156018393%3B%20s_nr%3D1290396253934-Repeat%7C1298172253934%3B; s_vi=[CS]v1|2674E4390501381E-60000111400121A4[CE]; track=%7B57D9FCBA%2D5716%2D4F3E%2D8EF2%2D8B0D51CF3A41%7D; GWCK2=servicenotifyzip=&pzip=20740; ASPSESSIONIDSSTCTAAR=ECPGKBNPFFBBKDAGABAKALAO; ASPSESSIONIDACRBRBDT=DLADGFNBLCCLIGJOHHBDEGI; ASPSESSIONIDQQRCRBDR=NPFQGKNBJOOOEBOGHOMAGCOD; ASPSESSIONIDQSTDSDBR=FFOQBKNBJKEEOGDMOPIOCHBN; ASPSESSIONIDAQQBQBDT=NMJFFFNBBCOLFDMNMPOPICNA; ASPSESSIONIDCSACSABQ=IALHGPMGBGNMCMLEOFNIDBCG; ASPSESSIONIDACTBQBCS=JFAOPENBNPNPHMJJEKFGLGJIMB; s_sess=%20c%3DundefinedDirect%2520LoadDirect%2520Load%3B%20s_cc%3Dtrue%3B%20s_sq%3D%3B; BranchNumber=2753; GWCK=imgpref=1&BranchNumber=2753&brandid=1&RTFCreateDate=1950%2D01%2D01&brand=shop%2Esafeway%2Ecom&browse=true&DivisionID=EAS; brand=shop%2Esafeway%2Ecom; brandid=1; EmailStatus=%2B; CID=123456789"
```

```
)  
);  
$context = stream_context_create($opts);  
$productHTML = file_get_contents("http://shop.safeway.com/dnet  
/RichProductInformation.aspx?promo_window=1&bpn=".trim($thisproduct[2]  
) , false, $context);  
preg_match('/<span id="nlabel__ctl0_lblmessage">(.*?)<br\>/i',  
$productHTML, $manufacturermatches);  
  
echo "INSERT INTO PRODUCTS (ProductID, Description, Ma  
nufacturer, Price, cat, subcat) VALUES ('".trim($thisproduct[2])."', '"  
.str_replace('"','"',trim($thisproduct[3]))."', '"'.addslashes($manufac  
turermatches[1])."', '"'.trim($thisproduct[6])."', '"$.shelfID[0]."', '"$.s  
helfID[1]."' );\n";  
  
}  
  
}  
  
}  
  
}  
  
}  
  
}  
  
echo "\n\nDone.";  
??
```

```

    $sqlInsert = "INSERT INTO CUSTOMERS (FirstName, LastName, AddressS
street, AddressCity, AddressState, AddressZip, Gender, Email, Username,
    Password) VALUES ('Cust".$i."', 'Cust".$i."', '". $streetNum." Baltimo
re Ave.', 'College Park', 'MD', '20740', 'Male', 'noemail@fake.domain'
, 'user".$i."', '".md5(password)."'");";
    echo "Customer created. ";
    $insertResult = mysql_query($sqlInsert);
    $getCust = mysql_query("SELECT * FROM CUSTOMERS WHERE Username = '
user".$i."'");";
    echo "<br>";
    $custID = mysql_result($getCust, 0);
    echo "Customer id: ";
    echo $custID."<br>";
    // modified from http://stackoverflow.com/questions/152115/gaussia
n-distributions-with-php-on-a-24h-time-period
    $peak1 = 12;
    $peak2 = 18;
    $stdev = 2.0; // Standard deviation of two hours
    $hoursOnClock=24; // 24-hour clock
    do // Generate gaussian variable using Box-Muller
    {
        $u=2.0*mt_rand()/mt_getrandmax()-1.0;
        $v=2.0*mt_rand()/mt_getrandmax()-1.0;
        $s = $u*$u+$v*$v;
    } while ($s > 1);
    $gauss=$u*sqrt(-2.0*log($s)/$s);
    if(mt_rand(0, 1) == 1)
    $curPeak = $peak1;
    else
    $curPeak = $peak2;
    $gauss = $gauss*$stdev + $curPeak; // Transform to correct peak an
d standard deviation
    while ($gauss < 0) $gauss+=$hoursOnClock; // Wrap around hours to
keep the random time
    $randTime = fmod($gauss,$hoursOnClock);
    $hour = intval($randTime);
    $min = intval(($randTime - $hour) * 60.0);
    $sec = intval(((( $randTime - $hour) - ($min/60.0)) * 60.0 * 60.0);
    do
    {
        $daysOffset = mt_rand(0, 8);
        $date = "2010-12-".str_pad(11 -
$daysOffset, 2, '0',STR_PAD_LEFT);
        $time = $date." ".str_pad($hour, 2, '0',STR_PAD_LEFT).":".str_
pad($min, 2, '0',STR_PAD_LEFT).":".str_pad($sec, 2, '0',STR_PAD_LEFT);
        echo "time = ".$time;
    } while ($date == "2010-12-11" && $hour > 13);
    echo "order time: ".$time;
    $createBasket = mysql_query("INSERT INTO BASKETS (CustomerID, Prod
uctArray, LastModified, Active) VALUES ('".$custID."', ' ', ' ".$time."
', 1);");
    $bidQuery = mysql_query("SELECT BasketID FROM BASKETS WHERE Custom
erID = ' ".$custID."'");";
    $basketID = mysql_result($bidQuery, 0);
    echo " basket id = ".$basketID;
    $numProducts = mt_rand(1, $maxProducts);
    echo "<br>".$numProducts." products in basket<br><br>";

```

```

unset($products);
unset($prodQuery);
$prodQuery = mysql_query("SELECT ProductID FROM PRODUCTS ORDER BY
RAND(" . mt_rand(0,100) . ") LIMIT " . $numProducts . ";"");
for($j = 0; $j < $numProducts; $j++)
    $products[] = mysql_result($prodQuery, $j);
$updateBasketItemsResult = mysql_query("UPDATE BASKETS SET Product
Array = '" . trim(implode(",", $products), ",") . "' WHERE CustomerID = '" . $
custID . "' AND Active = '1'");
$basketItemsResult = mysql_query("SELECT * FROM BASKETS WHERE Cust
omerID = '" . $custID . "' AND Active = '1'");
if(mysql_num_rows($basketItemsResult)) {
    $basketItemsRow = mysql_fetch_assoc($basketItemsResult);
    $basketItems = explode(",", $basketItemsRow['ProductArray']);
    $futureStockAdj = array(); $outOfStock = array();
    foreach($basketItems as $key => $thisProductID) {
        $productInfoResult = mysql_query("SELECT * FROM PRODUCTS W
HERE ProductID = '" . $thisProductID . "'");
        $productInfoRow = mysql_fetch_assoc($productInfoResult);
        if(!$futureStockAdj[$thisProductID])
            $futureStockAdj[$thisProductID] = $futureStock = $productI
nfoRow['Stock'] - 1;
        else
            $futureStockAdj[$thisProductID] = $futureStock = $futureSt
ockAdj[$thisProductID] - 1;
        if($futureStock < 0) {
            $outOfStock[] = $thisProductID;
            $futureStockAdj[$thisProductID] = $futureStockAdj[$thi
sProductID] + 1;
            unset($basketItems[$key]);
        }
    }
    if (count($outOfStock)) {
        echo "<br> out of stock.";
        $updateBasketItemsResult = mysql_query("UPDATE BASKETS SET Pro
ductArray = '" . trim(implode(",", $basketItems), ",") . "' WHERE CustomerID
= '" . $custID . "' AND Active = '1'");
    }
    $subtotal = 0; $taxableSubtotal = 0;
    if(count($basketItems)) {
        foreach($basketItems as $productID) {
            $productsResult = mysql_query("SELECT * FROM PRODUCTS WHER
E ProductID = '" . $productID . "'");
            $productRow = mysql_fetch_assoc($productsResult);
            if($productRow['Stock'] > 0) {
                if($productRow['SaleStatus']) {
                    $subtotal = $subtotal + $productRow['SalePrice'];
                    if($productRow['Taxable']) {
                        $taxableSubtotal = $taxableSubtotal + $product
Row['SalePrice'];
                    }
                } else {
                    $subtotal = $subtotal + $productRow['Price'];
                    if($productRow['Taxable']) {
                        $taxableSubtotal = $taxableSubtotal + $product
Row['Price'];
                    }
                }
            }
        }
    }
}

```

```

    }
    } else {
        echo "<td width='60' style='text-align: right; text-
decoration:line-through; color: #CE5C62; $color'>Out of Stock</td>";
    }
}

$taxSubtotal = (0.06 * $taxableSubtotal);    $deliveryCost = 5;
$addPaymentQuery = "INSERT INTO PAYMENT_TYPES (CustomerID, Payment
ID, PaymentType, PaymentInfo) VALUES ('".$$custID."', 1, 'Credit Card',
'4444333322221111')";
$addPaymentResult = mysql_query($addPaymentQuery);
$paymentTypeDetailsResult = mysql_query("SELECT * FROM PAYMENT_TYP
ES WHERE CustomerID = '".$$custID.'" AND PaymentID='1'");
$paymentTypeDetailsRow = mysql_fetch_assoc($paymentTypeDetailsResu
lt);
$delDay = mt_rand(1, 7) + 11;
$delDate = "2010-12-".$delDay;
$randTime = mt_rand(0,2);
if($randTime == 0)    $delTime = "9am - 1pm";
else if($randTime == 1)    $delTime = "1pm - 5pm";
else    $delTime = "5pm - 9pm";
$driverIDQuery = "SELECT DriverID FROM DELIVERY_PEOPLE WHERE Route
ID = '1' AND WorkHours = '".$$delTime.'";
$driverIDResult = mysql_query($driverIDQuery);
$driverIDNum = mysql_result($driverIDResult, 0);
$insertOrderQuery = "INSERT INTO ORDERS (CustomerID, BasketID, Pay
mentID, DeliveryDate, DeliveryTimeRange, DriverID, BasePrice, SalesTax
, DeliveryCharge) VALUES ('".$$custID."', '".$$baskID."', '1', '".$$delDa
te."', '".$$delTime."', '".$$driverIDNum."', '".$$subtotal."', '".$$taxSub
total."', '".$$deliveryCost.'");
$insertOrderResult = mysql_query($insertOrderQuery);
if(mysql_error())
    echo "<p class='error'><strong>Error!</strong> Could not create or
der!<br>MySQL Error: <u>".mysql_error()."</u></p>";
else {
    $newOrderID = mysql_insert_id();
    $getTicketBillNumsResult = mysql_query("SELECT MAX(TicketNum)
AS TicketNum, MAX(BillNum) AS BillNum FROM TRANSACTIONS");
    if(mysql_error()) {
        echo "<p class='error'><strong>Error!</strong> Could not g
et new Ticket and Bill Numbers!<br>MySQL Error: <u>".mysql_error()."</
u></p>";
        $undoInsertOrderQuery = "DELETE FROM ORDERS WHERE OrderID
= '".$$newOrderID.'";
        $undoInsertOrderResult = mysql_query($undoInsertOrderQuery
);
    } else {
        $ticketBillNums = mysql_fetch_assoc($getTicketBillNumsResu
lt);
        // Create Dispatch Ticket
        $newTicketNum = $ticketBillNums['TicketNum'] + 1;
        // makeTicket($newOrderID, $newTicketNum);
        // Create Bill
        $newBillNum = $ticketBillNums['BillNum'] + 1;
        // makeBill($newOrderID, $newBillNum);
    }
}

```

```

        // Create Transaction Info
        if($custID < 15)
            $insertTransactionInfoQuery = "INSERT INTO TRANSACTIONS (O
rderID, TicketNum, BillNum, DateTimeOrdered) VALUES ('".$newOrderID."'
, '".$newTicketNum."', '".$newBillNum."', '".$time."');";
        else
            $insertTransactionInfoQuery = "INSERT INTO TRANSACTIONS (O
rderID, TicketNum, BillNum, DateTimeOrdered, DateTimeDispatched, DateT
imeArrived, DateTimeReturned, DateTimePaid, AmountPaid) VALUES ('".$ne
wOrderID."', '".$newTicketNum."', '".$newBillNum."', '".$time."', '".$$
time."', '".$$time."', '".$$time."', '".$$time."', '".$toMoney(($subtotal
+ $taxSubtotal + $deliveryCost),false)."'");
            $insertTransactionInfoResult = mysql_query($insertTransact
ionInfoQuery);
            if(mysql_error()) {
                echo "<p class='error'><strong>Error!</strong> Could n
ot create transaction information!<br>MySQL Error: <u>".mysql_error().
"</u></p>";
                $undoInsertOrderQuery = "DELETE FROM ORDERS WHERE Orde
rID = '".$newOrderID.'";";
                $undoInsertOrderResult = mysql_query($undoInsertOrderQ
uery);
            } else {
                // Update Account Balance
                if($custID < 15)
                {
                    $updateAccountBalanceQuery = "UPDATE CUSTOMERS SET
Balance = '".$toMoney(0 -
($subtotal + $taxSubtotal + $deliveryCost),false)."', BalanceDate = '
".$date."' WHERE CustomerID = '".$custID.'";";
                    $updateAccountBalanceResult = mysql_query($updateA
ccountBalanceQuery);
                }
                // Update Basket Info
                $updateBasketInfoQuery = "UPDATE BASKETS SET Active =
0, LastModified = '".$time.'" WHERE CustomerID = '".$custID.'";";
                $updateBasketInfoResult = mysql_query($updateBasketInf
oQuery);
                // Update Product Stock
                $basketItemsResult = mysql_query("SELECT * FROM BASKET
S WHERE CustomerID = '".$custID.'" AND BasketID = '".$basketID.'");";
                $basketItemsRow = mysql_fetch_assoc($basketItemsResult
);
                $basketItems = explode(",", $basketItemsRow['ProductArr
ay']);
                foreach($basketItems as $basketItemID)
                    $updateProductStockResult = mysql_query("UPDATE PRODUC
TS SET Stock = (Stock - 1) WHERE ProductID = '".$basketItemID.'");";
            }
        }
    }
}
?>

```

6.4 Third Party Source Code

Google Maps Traveling Salesman Problem Solver

Geir K. Engdahl @ <http://code.google.com/p/google-maps-tsp-solver/>

Javascript Date Format Function

Steven Levithan

@ <http://blog.stevenlevithan.com/archives/date-time-format>

FusionCharts Interactive Flash & JavaScript Charts

FusionCharts Technologies LLP

@ <http://www.fusioncharts.com/>

Gaussian Random Number Distribution

Chris Johnson

@ <http://stackoverflow.com/questions/152115/gaussian-distributions-with-php-on-a-24h-time-period>

7 User Manual

7.1 Accessing eGroceries

To access eGroceries, you will first need an internet connected computer. The address for the eGroceries website is <http://eGroceries.antiemotion.com> and is best viewed in the Google Chrome or Mozilla Firefox web browser.

7.2 Navigating eGroceries

eGroceries has three basic sections, including Shopping, User Account Control, and Administrator Options. Each section represents a group of related functions/webpages.

7.2.1 Shopping

Shop by Aisle

(Related Tasks & Queries: Product Query, Category & Subcategory Query, Basket Update Query)

To shop aisle to aisle, a primary aisle may be chosen from the last hand navigation of any page on the site. Alternatively, the “Shop By Aisle” header is a link to a table based layout of graphical representations of the Aisles (kindly provided by Safeway) that also links to the same category page. This category page is another breakdown of the products into common items such as “Baby Accessories” or “Bacon” into similar graphical representations (again kindly provided by Safeway). On the next page is the actual list of products for that aisle and category that displays a small image of the product (provided once again by Safeway), a product description, manufacturer, price (and sale price, if applicable) as well as a link to add the product to the basket. For simplicity, to add more than one of the same item to the basket, a “Add Another to Basket” link will appear on items already in the basket. After adding a product to the basket, a success message is displayed (with a link to your basket if you are done shopping) above an area where suggested products are printed in a row (based on the manufacturer of the item added to the basket). After choosing products, or if an item is wished to be removed from the basket, you must go to the View Basket page.

Search

(Related Tasks & Queries: Product Query, Dynamic Search Query)

The search screen allows for simple product searching with the option of searching descriptions, categories (aisles), manufacturers, and price ranges. You also have the option to hide all results that you have purchased in the past. The search query is built dynamically from these fields, and supports partial searches for descriptions and manufacturers. Products are then displayed in the same manner as on aisle category pages as described above.

View Basket

(Related Tasks & Queries: Product Query, Basket Update Query)

Although the View Basket page looks very similar to the category page of an aisle, the links have been changed to “Remove from Basket” and a subtotal of the base cost of the products is displayed at the bottom of the table. After verifying all of the products, you may click the “Checkout Now” button at the bottom of the page.

Checkout

(Related Tasks & Queries: Order Placement, Order Fulfillment, Product Query, Order Query)

The checkout page again mimics the View Basket page, but now with a simplified view of just product description and price, and also includes sales tax, delivery fee, as well as a grand total. If any items in your basket are out of stock (or your order would decrease the stock to below 0) the item will be removed from your basket and a warning message will be displayed. The delivery fee is calculated by querying the database for your address, and then plotting the position, along with the position of the warehouse (the CSI building), on a Google Maps instance controlled by the Google Maps API. This is then used to calculate the distance, and assign the address to a delivery route (based on mile radius - \$5 for ≤ 3 mile radius, \$7 for > 3 and ≤ 5 mile radius, \$10 for > 5 miles). Next, you are prompted to select a delivery date and time range (9am – 1pm, 1pm – 5pm, 5pm- 9pm) ranging from today's date (and up to 1 hour before the later end of the time range – if available) to up to one week in the future. At this point, a complicated script is run to calculate the estimated time of arrival of your order. This script first queries the database for all pending orders for your route, on your chosen date and during your chosen time range and plots all of their points, along with the warehouse, and your address, on an instance of Google Maps. At this time, an open sourced script (by Geir K. Engdahl) runs to solve the “Traveling Salesman Problem” of finding the faster route from the warehouse, to each customer, and then back again. Using the results of the estimated time required to complete the route as a maximum bound, the time plus the beginning time of the selected time range is used to calculate the estimated time of arrival (for simplicity). Finally, a payment method is required to be chosen to pay for the order. If no payment methods exist for the customer, an error will be displayed and they will be asked to add a payment method before continuing. If a checking, account is selected as a payment method whose balance is less than that of the grand total of an order will result in an error message after submitting an order. To complete the checkout, you may click the “Confirm Check” button at the bottom of the page. (Note: if an account is listed as inactive/disabled in the database, a customer is NOT allowed to complete a checkout, and will immediately be displayed an error to contact an administrator to reactivate their account.) At this point, a new order is entered into the database that links the basket you have approved, the payment method chosen, delivery date & time range, driver of the route, as base/sale/delivery totals to your CustomerID (and is given a unique OrderID). Then, a new ticket and bill are created and stored in plain HTML on the server as an html file. This will ensure that individual product prices are saved for later display, and will generate the printed ticket a driver will use to deliver the goods to the customer. These ticket and bill numbers, as well as the date and time of the order placement, are tied to an OrderID and stored in a transactions table in the database. Next, the balance of the customer is decremented by the grand total of the order, and the basket is marked as inactive in the database (to allow the customer to create a new basket, yet to save the list of products for future queries). Finally, the stock of the product is decremented in the database, and the customer is redirected to the Order History page for their newly placed order.

7.2.2 User Account Control

Register New User

(Related Tasks & Queries: Customer Setup)

The registration page is the first stop for new customers. To begin, a customer will enter their personal information, as well as pick a username and password (stored as an MD5 hash in the database) to access the system. All fields are required, and an error message will display at the top if any question is left blank. The system will also check that the username is unique before completing registration. After submission of the form, a new customer record is created from the supplied information, with a default balance of \$0 and a status of active. (Note that to make the user an Administrator, the database entry must be manually updated to mark the user as an AdminUser.) After the entry has been created, the customer is redirected to the Sign In page.

User Sign In

(Related Tasks & Queries: Customer Login)

The User Sign In page consists of simply a username and password prompt that checks for an existing username and MD5 hash of the provided password in the database, and if valid, assigns the user a session that stores the user's account information for easy access (updated every page load). After authentication, a customer is redirected to the My Account page.

My Account

(Related Tasks & Queries: Customer Data Update, Balance Query)

The My Account page is both a customer information update section, as well as a navigation area for common customer actions (discussed below). The top section is a simplified version of the registration page, which generates a dynamically created update query to update the database. The map displayed to the right is the graphical representation of the Google Maps API function to calculate the customer's distance from the warehouse (as described in Order Checkout). The bottom section contains buttons that link to other pages, as well as the result of the Balance Query for the customer, which displays a negative balance if they have a pending order that has not yet been delivered and paid for, or else \$0.

Change Password

(Related Tasks & Queries: Customer Data Update)

The Change Password page simply allows a customer to change their account password by prompting for the current and new password (as well as confirming the new password). After confirming the old password is valid and the new password matches the confirmation, the customer record in the database is updated with the new password.

Manage Payment Methods

(Related Tasks & Queries: Customer Data Update)

This page allows a customer to update or add a new payment method to their account. To edit an existing entry, click the edit icon in the action column next to the entry to change. The textboxes will then activate and allow customers to update the payment details (note that credit card numbers are censored on display, and will only be updated if a valid 16 digit number is entered). For simplicity, it is assumed that a customer sends a voided check to eGroceries with checking account information, and only prompts the customer for their account limit. After editing, click the save icon in the action column to update the database. Alternatively, to add a new payment entry, use the last row to enter new information, and click the save icon.

Account Status

(Related Tasks & Queries: De-activated/Re-activate an Active/De-activated customer)

The Account Status page allows a user to deactivate their account if they no longer wish to use the eGroceries system. If the user wishes to reactivate their account, they may also do so on this page.

View Past Orders

(Related Tasks & Queries: Order Query, Product Query)

To view pending or processed orders, a customer may visit the View Past Orders page to get a list of Order IDs, Delivery Date/Times, Payment Methods, Order Totals, and Amount Paid. Entries also have a link to a page listing details of the order, including a list of products purchased, the order totals (base, sales tax, delivery fee, total), delivery information (address, date & time, estimated arrival if pending), as well as a link to view the generated Bill that was/will be delivered to the customer.

Modify Standing Orders

(Related Tasks & Queries: Standing Order Management, Order Query, Product Query)

In order to create a standing (recurring) order, a customer must first place an order, and then visit the Modify Standing Orders page to select the order. A list of current standing orders is displayed above a list of past, non-standing orders. Existing standing orders are listed by ID, Start & End Date, Frequency of the order, Order Total, a link to the Bill, and an indication whether the standing order is active or inactive. To add or modify a standing order, the customer selects an order and clicks the "Make/Modify Standing Order" button. This will bring the customer to a page listing details of the order (similar to the View Past Orders page). Below the order details, the customer may specify a Starting and Ending date for the standing order, how often the order should occur (Frequency), and finally may specify if the standing order is active or inactive (in case the customer goes on vacation for example). Standing orders are then checked by a background process task to automatically submit a copy of the order every time the frequency reoccurs.

View Transaction History

(Related Tasks & Queries: Customer Transaction History, Order Query)

In order to search for all transactions between any two dates, customers may visit the View Transaction History page. The two dates provided are used to query the database for all orders that were placed, dispatched, arrived, returned, or paid during the time period. These dates, as well as the order total and amount paid are displayed in a table, where each row links to the Order History page for that order.

7.2.3 Administrator Options

Manage Users

(Related Tasks & Queries: De-activated/Re-activate an Active/De-activated customer)

The Manage Users page allows administrators to activate or deactivate a customer. A table is displayed with the ID, Name, Account Balance, and Status of each account, with a button to either Activate or Deactivate a user (based on their current status).

Place Products on Sale

(Related Tasks & Queries: Place Product on Sale, Product Query)

Every week, a random selection of products needs to be put on sale (after removing the sales from the previous week). In addition to the automatic background task for this, an Administrator is allowed to manually perform this task, which updates the database to remove all of the current sales, as well as selecting about 10% of the products from each subcategory, and assigning them a sale price of a random amount of 5-15% off.

Reports

(Related Tasks & Queries: Product Query, Order Query, Balance Query, Customer Transactions)

The Reports section of the Administrator page allows Administrators to run one of three reports on data in the database. (Note that the Suggest Product report is integrated in the “Add to Basket” task and is displayed on the shop page as discussed above.)

Average Basket Value: This report creates a dynamic line graph that details the average value of a basket between every hour in three time periods: today, yesterday, and last week. The average is calculated by a complex query that adds up the total values of all of the baskets that fall into that hourly range, and divides by the number of orders fitting the requirements, and then graphs the results.

Best/Worst Seller Report: This report returns a list of the top 10 of both the top selling, and the worst selling products, their category and sub-category, price, and amount sold. For the worst selling products, there are also action buttons that allow an administrator to either place the product on sale in an attempt to increase sales, or remove the product from the system altogether.

Delinquency Report: This report runs a duplicate of the automated task that runs daily, in which the system will search for a list of each customer that has an account balance exceeding \$25, and whose balance has not been updated in over a week. The system then sends out a message via email to the customer notifying them that they are delinquent, their balance, and that their account has been listed as inactive (disallowing the customer to place another order, but still allowing them to log in to the website).

8 Testing Efforts

8.1 Tests Performed

Page Security

A series of tests were performed to ensure secure pages (such as My Account, Checkout, and Administrative Options) were inaccessible by unauthorized users. The server correctly identified and returned an error for unauthorized access.

Registration/Customer Account Update Page Validation

The eGroceries Registration page, as well as the My Account Customer Account Update Page, was tested to ensure that data met loose requirements. First off, data was tested that involved invalid SQL characters (such as apostrophes), then other types of invalid data such as previously used usernames and incomplete sets of form entries. The server was able to replace invalid data, and display a warning for missing data as well.

Change Password Test

The change password account page was tested to ensure that all fields were required, the old password was checked, and that the new password and the confirmation password were also checked to be identical. The system correctly handled both cases.

Out of Stock Product Test

A test was performed to ensure products that were out of stock could not be ordered. The server correctly warned the user and removed the product from the basket before checkout could occur.

Checking Account Limit Check

The system was tested to ensure that any order paid with a Checking Account with a total that would exceed the accounts limit would produce an error. The system correctly identified the case and prevented an order from being completed.

Rollback of Changes on Checkout Failure

The system was rigged to test a failsafe built in to undo changes if an order fails. For example, after an order entry was created and a ticket and bill created, a transaction entry entered was simulated to fail, and caused the system to delete the order just created, in effect “undoing” the order until the problem could be resolved.

9 System Limitations & Possibilities for Improvement

9.1 System Limitations

Below are a few system limitations due to the simplified model used for the program.

1. Currently the system only supports US based addresses, based on state abbreviations vs. a dedicated dropdown list of states. The addresses are not validated and are assumed to be correct.
2. Payment methods are overly simplified and are not validated besides a check for a 16 digit number for a credit card number, or a price for a checking account balance.
3. Currently, accounts disabled due to outstanding balances on an account are able to be reactivated by a customer on the Account Status page.
4. Standing orders are handled overly simply.
5. The system currently does not support refunding customer money for unsatisfactory products.

9.2 Possibilities for Improvement

If this were a production system, a few basic improvements could be implemented for a better/more secure shopping experience.

1. Street addresses and Email addresses on the registration & customer account update page could be validated.
2. Sign in and checkout could be secured with SSL for security.
3. More options for searching past orders could be added.
4. More search options could be added to product search.
5. Support for specifying quantities of products to add to a basket vs. adding one at a time.
6. Product suggestions could be expanded by searching purchase history for the customer, or other relations rather than just by manufacturer.
7. The script to estimate delivery time could be further tuned to use the estimated arrival time of the delivery driver to the customers address vs. the upper bound of the estimated time of the driver returning to the warehouse.
8. More administrator options could be added, such as manually updating customer information, managing product information, manually placing a product on sale, etc.
9. Support for the case where a customer does not pay for the entire price of an order, or the case where items are not found satisfactory and money is given back to the customer.

10 Credits and References

10.1 System Credits

The eGroceries system was created and coded by Stephen Eskin and Jeff Lasser. All PHP, HTML, Javascript code (unless otherwise noted) and database queries are originally created. The script used to scrape Safeway's site and populate the database was created and run by Stephen, while the rest of the database load script was created and run by Jeff. Database design was a cooperative effort between Stephen and Jeff, and the majority of product code was contributed by Stephen, with parts of the User Account Control and Administrative Options contributed by Jeff. The project phase reports were created and maintained by both Stephen and Jeff, and both did research required to create the reports. Certain scripts used (such as for mapping and delivery estimates) are open sourced algorithms integrated into original code, and are detailed below.

10.2 References of Works Used

1. Safeway Grocery Delivery: <http://shop.safeway.com/superstore>
2. Google Maps API: <http://code.google.com/apis/maps/index.html>
3. Google Maps Traveling Salesman Problem Solver: Geir K. Engdahl @ <http://code.google.com/p/google-maps-tsp-solver/>
4. Javascript Date Format Function: Steven Levithan @ <http://blog.stevenlevithan.com/archives/date-time-format>
5. FusionCharts Interactive Flash & JavaScript Charts: FusionCharts Technologies LLP @ <http://www.fusioncharts.com/>
6. Gaussian distributions with PHP on a 24h time period: Chris Johnson @ <http://stackoverflow.com/questions/152115/gaussian-distributions-with-php-on-a-24h-time-period>