



MASTER INFORMATION TECHNOLOGY
SOFTWARE ENGINEER

Building Website for TestGearOnline Ltd. Pty with Drupal

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Abstract

This internship report describes my working experience as a Bridging Engineer on building a website with Drupal and PHP, period from July to November 2014 at Enclave Ltd. It is my great opportunity to join the Hanson team and working in the project “TestGearOnline Investment and Development in Vietnam” (www.testgearonline.com). The firm has formed a relationship with a regional university in Vietnam - the University of Danang and an Australian Registered Training Organization - Trainwest (RTO# 51807) for delivering courses and issuing certifications with international recognitions in among countries, i.e., Australia, Philippine, and Vietnam. Courses may be delivered with recognition by the ministries of Vietnam, of Australia, or of both. Training may be available elsewhere at client site on request. TestGearOnline can assist training and doing business in many industries, especially in mineral, oil, and gas. It looks forward to forming a successful relationship with Trainwest (Australia) and with the University of Danang (Vietnam).

Acknowledgements

Firstly, I would like to thanks all managers and engineers at Enclave Ltd., especially my supervisor - Thang (Anthony) Minh Nguyen, who has guided me to complete all my tasks, and all members in Hanson team, who have enthusiastically and friendly helped me during my internship.

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Finally, I would like to show deep appreciations to my parents and close relatives who have helped, encouraged and created best conditions for me in study.

Introduction

The main object of project is to research Drupal web-base and how to maximize its features in developing product, as well as write user manual for the product. Besides, working collaborating with team members and Team Leader in building the website system, participating to meetings of team and team-client, documenting and analyzing all data/documentations for future development, working collaborating with two Bas, and communicating and explaining requirement to developers.

Based on my main tasks, the content of this report can be structured into four chapters as flowing:

Chapter 1: Context.

Chapter 2: My position and responsibility

Chapter 3: My participation

Chapter 4: Conclusion

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Chapter 1

Context

1.1 About Enclave Ltd.

Enclave (<http://enclavevn.wordpress.com>) was founded in 2007 with its main office located in Da Nang city and currently over employs 200 persons; its headquarter is located in Ho Chi Minh City for international trade. Enclave's main activities include: offshoring, application development and maintenance, manufacturing execution system, software quality assurance, embedded systems, and mobile.

Enclave has successfully developed providing Information Technology Outsourcing (ITO) & Offshore Development Centers (ODC)

Enclave uses server system to create their own internal bearing. Camera system to monitor all activities in the building. These server to store data of the company and customers. These internal website to work within the company.

1.2 About project.

Once a client comes to Enclave, that client might not want to work with other IT firms because of Enclave's professionalism. Specifically, each team in Enclave is named differently (e.g, Hanson team) and once different client coming, the client will be named as the team's name ; it means that clients' information is secured – only Project Manager (or Team Leader or BA) can interact with clients

Therefore, working in Hanson Project, team members might not know (i) who are their clients and (ii) what clients want and need ; all information are transferred through by

Project Manager/Team Leader/Bridging Engineers who work directly with clients and get all necessary requirements.

Hanson team developed several products relating to a big client with the value of over USD 100,000.00 including many Industrial Software and Website system. This project been divided to multiple tasks with different releases. Mainly, this Industrial Software is written by ASP.NET and C# programming languages while using Drupal and PHP for Website system.

At the beginning Hanson team plans to have 20 members but later reduced to 13 members. Including 1 team leader, 2 bridging engineers, 2 business analyzing and 8 engineers.

1.3 TestGearOnline Ltd.

Website is written from July to November consists of two major purposed of promotion and management. Through the site, TGO hopes to promote its products (teaching courses and EPCM software) to as much clients as possible. The focused clients are people who are already in mining area and possible ones who are getting into mining area. These clients can be very diversified; i.e., Australia, Malaysia, Phillipine, and Vietnam. For the management purpose, TGO hopes this site is going to manage all teaching courses and related materials (tools, room, schedules, etc.) as well as keep track of students, sale agents, and its partners.

Chapter 2

My Position and Responsibility

2.1 Researching

I have to research what Drupal is and why the client choose to work with it. After then, I've learned some great features of Drupal that can be used to maximize the product's efficiency. Drupal bases on PHP but it supports writing code faster and easier to understand; that is the main reason why I have never had any experience on web design before but can still work with Hanson team well to deliver the website product to the client

2.2 My assigned tasks: maximize website's features

2.2.1 Add functions to Activation Code Management

This additional function is to manage all code activation, active and reactive classes, and students along the schedule classes. Ideally, a course can be purchase by a student or a sale agent. To make it easier to manage, the client requires to have Activation Code for the code transferable easiness. It means once a purchase has been made, the buyer will receive an activation code. This code can be transferred or traded outside; the client doesn't care about those trades. However, once an activation code is used, a student is officially register to a schedule class; from there, s/he can access unlimitedly to the course's documents (i.e., PDF booklet, PowerPoint slides, notes, and other related articles).

Beside that, the activation code can tell TGO management that how many students have registered; if the number of participation is less than a required minimum, the scheduled class

could be moved to another period.

Moreover, the activation code can tell TGO management the number of purchases during a certain time and what they need to do (i.e., forming classes) to clear out those codes and reserve further business actions.

2.2.2 Add functions to Training Site's Dashboard

The additional functions on the dashboard as:

- Report of the students.
- Statistics how many students have followed the course.
- Statistics how many students have bought courses.
- Statistics of the instructor.

2.2.3 Add Term and Condition in user's registration:

The term and condition form is added to the registration site. Its purpose is to let the registers acknowledge all law, policy, and agreement along their registration and further uses.

2.2.4 Add Sale Agent Management table within Sale Agent Center to manage activation codes (take back and transfer, request relive, etc...)

This table is used to show all activation codes (all active, used, and deactive) that a sale agent has purchased; categories by courses. By this table, the sale agent can request to deactivate a code and renew a used code (in case, the code is activated, but student decided to not study). In addition, the sale agent can have a review of their purchases for further actions

2.2.5 Add function change attending date (effective 1 time, before course at least 5 business days)

To add function to stop registering 5 days before the course starts for arranging the room, informing students the venue, the schedule, etc...

2.3 Business Analyzing (BA)

The BA works directly with clients 2 days per week for one month (August 2014) and meeting virtually once a week via Skype, using Skype to chat daily with client to collect their requirement, ask for thoughts, and double check the work. At the end, a BA - myself - needs to write the user manual to guide end-user how to use the system, for administration and maintenance later. As we already know, the maintenance cost takes 70% of the total budget, it is significant to have a clear and understandable user manual. Therefore, to reach the perfection on technical writing (user manual), I got many help from the supervisor along my independent works.

Chapter 3

My Participation

3.1 My internship schedule

My original inter plan from 07/07/2014 to 07/12/2014 but TGO project finished on November, so I ended my inter program in 14/11/2014 instead 07/12/2014

	Jun				Aug				Sep				Oct				Nov	
Task	week 2	week 3	week 4	week 1	week 2	week 3	week 4	week 1	week 2	week 3	week 4	week 1	week 2	week 3	week 4	week 1	week 2	
Researching																		
Business Analyzing																		
Add functions to Activation Code Management																		
Add functions to Training Site's Dashboard																		
Add Tem & Condition in user's registration																		
Add: Sale Agent Management table																		
Add function: change attending date																		
Write user manual																		
Review																		

Figure 3.1.1: Internship schedule

3.2 Drupal Form – FormAPI

I used Drupal Form – FormAPI to maximize all features in my task.

- Forms are defined by a single PHP array. Each key of the array is a form element.
- Drupal builds and generates the html output for the form using FormAPI.

- Provide a standardized means to create, process and theme form. The Forms API is part of Drupal that is used to generate Forms. It allows to use all the features of Drupal (access control, input filtering, theme control), and apply them to a form.
- Provides safe form error handing and validation. Drupal allows to specify a validation functions for the whole form, or for specific elements. Validation takes place before the form is submitted, so we can do checks here for the absence of data. If the checks fail, we know the submission will not take place.
- Allow other modules to plug into the form and change it with the hook form alter. With the hook form alter, the entire form arrays passed to any modules who define this hook.

I also know how to building a From:

Step 1: Define a new function that builds and returns a form array.

Step 2: Define a function that validates the form values.

Step3: Define a function that processes the form values on submit.

Step 4: Call the form function using `drupal_get_form()` to present the form on a page.

3.3 Business Analyzing

As I mentioned before on 2.3, my role in the team is also a BA with a scheduled and unscheduled communication with clients, team members, and the leader. In details, for every week, the client will do a black-box test by themselves to review their requirements' status and whether any bugs. This is the process of discovering, analyzing, defining, and documenting the requirements that are related to a specific business objective

1. Week 2 and week 3 of July:

- Client wanted to add a class management, courses management, and student ID management on the site.
- The logic of these added features:
 - * One student could register for many courses.
 - * One student could only take one class at a time.

- * Students are kept tracked on class schedule by their IDs.

- Database Implementation

- * Students, Courses, and Classes are stores in three main tables in database (locally and virtually on My PHP).

- * Other relational tables among these three main ones are also created to store their relationships.

- User-Interface Implementation

- * Having search tool-box for each feature

- * Having option Edit/Add/Remove/Approve/Activate... depending on different feature

2. Week 4 of Jun and week 1 of August:

- Client wanted add a course categories to manage all training courses efficiency

- The logic of these added features:

- * Only admin/owner can add a new course category

- * Only admin/owner can make arrangements of courses to categories.

- Database Implementation:

- * One category has many courses. One course is stored in only one category

- * Category are stores in table in database

3. Week 2 and week 3 of August:

- Client wanted to add a management field to any function

- The logic of these added features:

- * Students only view and make necessary selection based on their rights. These changes could have a pending status at which changes are sent to admin or reserved ones (trainer, sale agent, etc.) for approval. This typical rights are located on Course Purchase, Course Register, Course Activation, and Class Cancel.

- * Admin or the reserved one have a highest right to make changes and manage students' changes. The admin then can approve or denied changes from students.

4. Week 4 of August and week 1 of September:

- Client wanted to have a management tab for training schedules
- The logic of these added features:
 - * Each course has a specific started date and ended date.
 - * One trainer can take one class at once.
 - * One student can take one class at once.
 - * One trainer can stand on many different classes.
 - * One student can be trained in many different classes.
 - * Classes schedule is visible for both students and trainers on site.
 - * Admin is reserved the right to cancel a schedule.

5. Week 2 and week 3 of September:

- Client wanted to conform report about country, course name, user and time.
- The logic of these added features:
 - * All information are save table data.
 - * A PDF report will be exported after a click.

6. Week 4 of September and week 1 of October:

- * List of purchased and activated course of a student.
- * Student can cancel courses.
- * Print off receipt of courses purchased; among different view as a student, a sale agent, and the firm - TGO.

7. The last weeks: Transferred to the client final formal commitment.

3.4 Choosing suitable tools for the project

- **Drupal 7**

Drupal is an open source software application that manages the content of builds web-sites and web applications. Drupal's many features and add-ons allow it to be used for

a variety of website needs such as marketing, internal communications, informational website or for social networking purposes. If a needed feature is not currently available, it has a proven community of developers who can be paid to do work for you. Drupal's access control system means that it can be easily applied to your organizational structure. Overall, the client requests the website system to be written by Drupal because of its free charge, easiness, and flexibility.

Although I have not had experience on developing a website before, when working with Drupal 7, I approached quickly because of its flexibility to create a series of web pages without much programming as well as open source software with 1 storage modules and themes of the developers.

- **Apache 1.3**

Apache Webserver is one of the simplest and most commonly to develop the project website. There is a thing that make NginX unpopular than Apache is NginX only suitable for the Server service separately, not suitable for Shared Hosting. That is why I choice Apache.

- **MySQL 5.0.15**

Drupal 7 only supports MySQL 5.0.15 or higher. MySQL 5.0.15+, PostgreSQL 8.3+, or SQLite 3.x are the databases that are most frequently used with Drupal. But MySQL is much more widely used because MySQL provides excellent reliability and ease of use. It is free as well as thousands of developers to share their code related to communicate with a MySQL databse.

- **PHP 5.2.5**

Drupal 7 only requires at least PHP version 5.2.5 and PHP Data Objects (PDO) must be activated for Drupal 7 to install and run correctly.

- **NetBeans IDE 7.4**

I want to follow the coding standards of Drupal and want to adhere to it, so I use NetBeans. Its good for formatting the code. Beside, Eclipse also has a lot of customisations for drupal but there's no drupal version of eclipse.

Chapter 4

Conclusion

Hanson project has been finished so far. During more four months working as a Bridging Engineer inter, I maximized five features in developing product with Drupal.

I also was learned how to write a technical communication and I wrote one user manual for the product well.

After my university graduation, I worked as a lecturer and had never worked as an engineer at the company. Through the internship I learned a lot of very helpful practical knowledge.

From an individual who has no experience in web development, after working with Hanson team, I have confidence to enter into any web project, especially developing web with Drupal.

After completing my post graduation, I still work as a lecturer but if possible I still look forward to continuing to work part time with IT company to improve my practical knowledge.

Bibliography

- [1] Matt Butcher, Larry Garfield, and John Wilkins. *Drupal 7 Module Development*. Packt Publishing Ltd, 2010.
- [2] Bill Fitzgerald. *Drupal for Education and E-learning*. Packt Publishing Ltd, 2008.
- [3] Emma Jane Hogbin. *Drupal User's Guide: Building and Administering a Successful Drupal-powered Web Site*. Prentice Hall Press, 2011.
- [4] Michael Peacock. *Drupal 7 Social Networking: Build a Social Or Community Website with Friends Lists, Groups, Custom User Profiles, and Much More*. Packt Publishing Ltd, 2011.
- [5] Christoph Purrer. *Drupal: The content management system for handling multimedia files*, 2010.
- [6] Todd Tomlinson. *Beginning Drupal 7*. Apress, 2010.

Appendix A

USER MANUAL

Revision History				
Date	Version	Description	Author	Approved
Friday, September 11, 2014	v1.0	The first Release	Pham Thi Tra My	

www.enclaveIT.com

A.1 QUICK START

A.1.1 How to use this manual

This document is a guideline that shows all features of Test Gear Online Competition application and how to use this application properly.

This document includes four main parts for Admin/Owner, Instructor/Assessor, Sale Agent, and Student:

1. Admin/Owner - Trainings Management
 2. Instructor/Assessor - Trainings Management (Note: decentralization of authority)
 3. Sale Agent - Sale Agent Center
 4. Student - Student Center
- Note: Admin and Owner are reserved the right to view and make change all tasks.

A.1.2 Term and abbreviation

Terms and abbreviations of this software:

- FAQs: Frequently Asked Questions
- TGO: Test Gear Online

A.2 ADMIN/OWNER

From TGO dashboard, navigate and click on **Training Management** on menu bar.

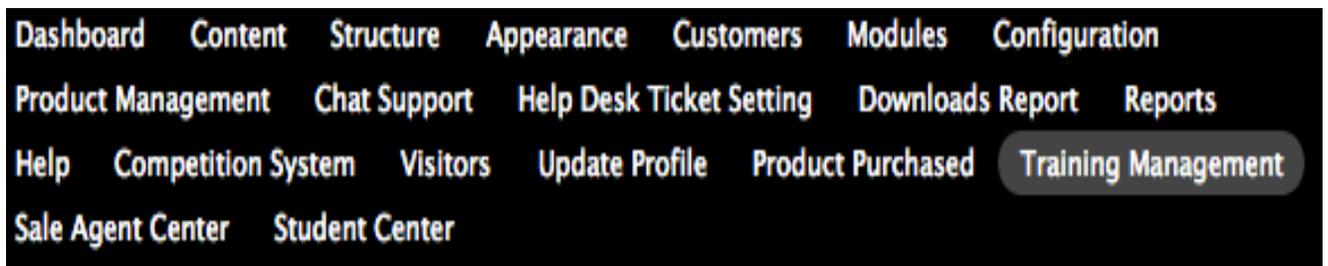


Figure A.2.1: TGO – Training Website dashboard

It leads to the Training Management page as Figure 3.3.3 below



Figure A.2.2: Training Management page

Under this page, there are totally ten (10) functions: (i) Manage Category, (ii) Manage Course, (iii) Manage Country, (iv) Manage Schedule, (v) Filter and Report, (vi) Manage

Refund, (vii) Manage Student, (viii) Manage Certificate, (ix) Manage Promotion, and (x) Manage Class.

Noting that, while the Admin/Owner have all right reserved on these ten functions, the Instructor/Assessor (part 3 of this manual) have control limitedly on two functions: **Manage Student** and **Manage Class**. Therefore, these two functions are described in part 3 – Instructor/Assessor.

A.2.1 Manage Category

From **Training Management** page, navigate and click on **Manage Category** leading to Training page

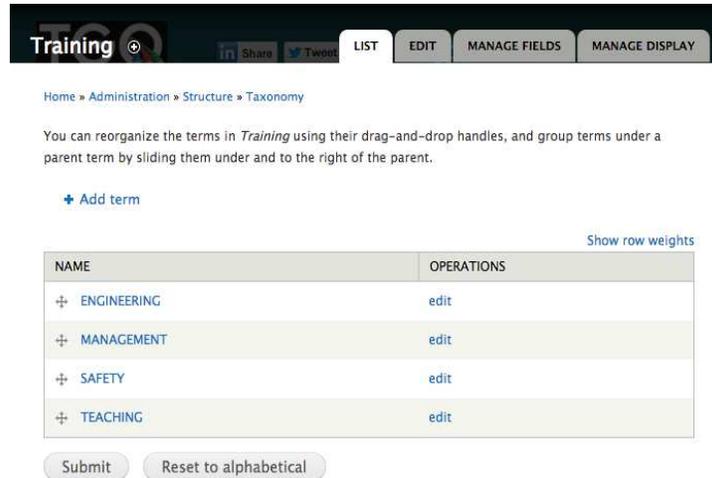


Figure A.2.3: Manage Course – Training page

There are four (04) tabs in this page: **List**, **Edit**, **Manage Fields**, and **Manage Display**.

2.1.1 List tab

To add a new term:

Step 1: Click Add term on upper-left of the page (Figure 3.3.4).

Step 2: Fill all information required.

Step 3: Click Submit to save your work and to return to Manage Category.

Step 4: Click Submit to make your change permanent.

To reorganize term in Manage Category page:

Step 1: Drag and drop your chosen term to your referred location within the table.

Step 2: Click Submit to make your change permanent.

Note: You may reorganize the term automatically by clicking **Reset to Alphabetical**. However, once using this button, all previous customized orders will be discarded and changed to alphabetical order.

To edit an existing term:

Step 1: Click **Edit** in Operation column.

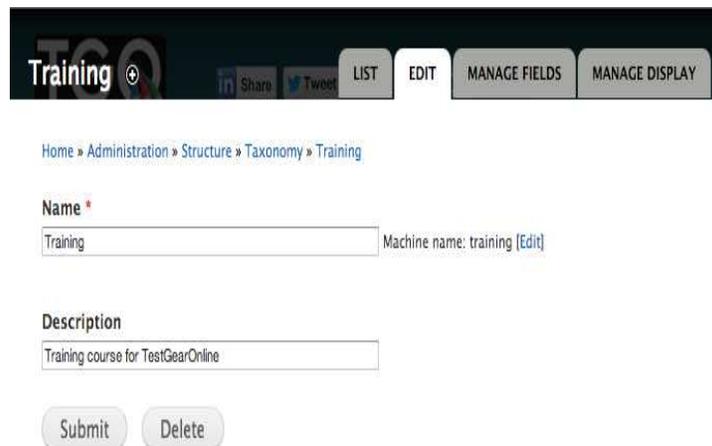
Step 2: Fill all information required.

Step 3: Click **Submit** to save your work or **Delete** to eliminate this term out of the category. It automatically returns to Manage Category page after clicking.

Step 4: Click **Submit** to make your change permanent.

2.1.2. Edit tab

Admin can change name of the page Manage Category in the Edit tab by filling all required information. After clicking Submit, change will be permanent.



The screenshot shows a web interface for editing a 'Training' category. At the top, there is a dark header with the 'Training' title and a search icon. Below the header, there are social media sharing buttons for LinkedIn and Twitter, and four action buttons: 'LIST', 'EDIT' (which is highlighted), 'MANAGE FIELDS', and 'MANAGE DISPLAY'. Below the header, there is a breadcrumb trail: 'Home » Administration » Structure » Taxonomy » Training'. The main form area contains a 'Name *' field with the value 'Training' and a 'Machine name: training [Edit]' label. Below the name field is a 'Description' field with the value 'Training course for TestGearOnline'. At the bottom of the form, there are two buttons: 'Submit' and 'Delete'.

Figure A.2.4: Manage Course – Edit tab

2.1.3. Manage Fields tab

This tab is used for adding new field(s) for each term managed in the List tab.

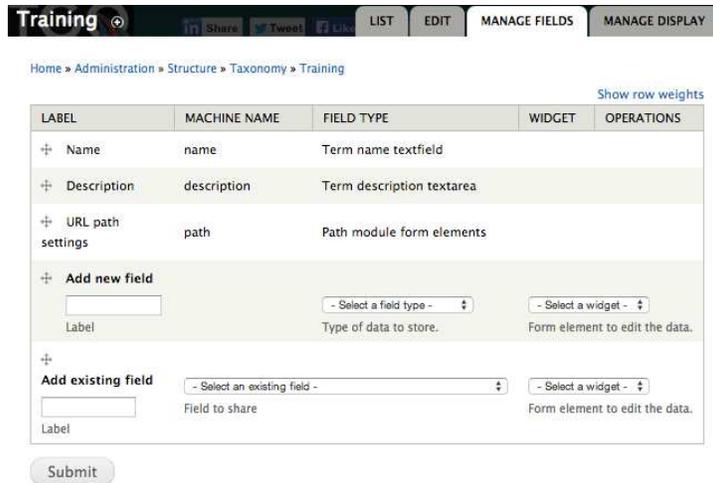


Figure A.2.5: Manage Course – Manage Fields tab

To add a new field:

Step 1: Fill information required in those boxes: Label, Type of data to store, and Form element to edit the data. (Figure 3.3.6, read area)

Step 2: Click **Submit**.

Step 3: Fill all information required on the page Field Settings (Figure 3.3.7)

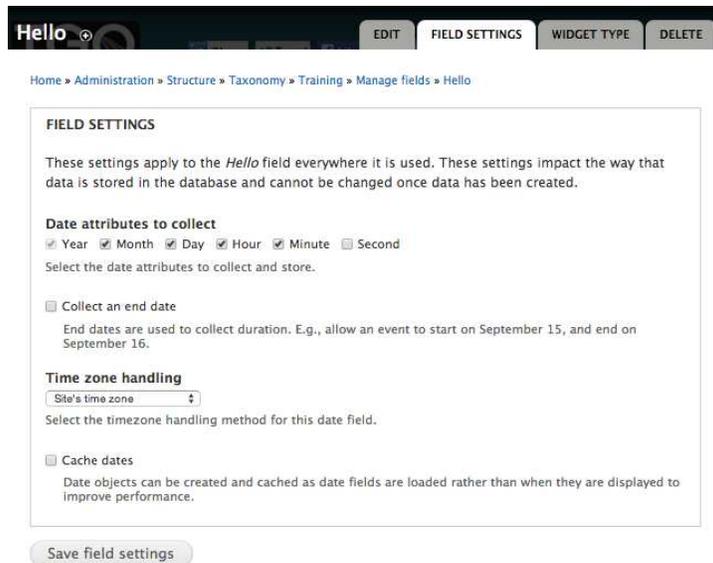


Figure A.2.6: Creating a new field

Step 4: Click **Save field settings**.

Step 5: Click **Save settings** to exit current page and return to **Manage Fields** tab, **Manage Category** page.

To add an existing field:

Step 1: Fill information required to those boxes: Label, Field to share, and Form element to edit the data (Figure 3.3.6, read area).

Step 2: Click **Submit**.

Step 3: Fill information required. The option **More Settings and Values** is available for advance settings.

Step 4: Click Save settings to exit current page and return to Manage Fields tab, Manage Category page.

To edit a field:

Step 1: Click **Edit** in **Operation** column (Figure 3.3.8).

Step 2: Make necessary changes.

Step 3: Click **Save settings**.

LABEL	MACHINE NAME	FIELD TYPE	WIDGET	OPERATIONS
+ Name	name	Term name textfield		
+ Description	description	Term description textarea		
+ URL path settings	path	Path module form elements		
+ Hello	field_hello	Date	Pop-up calendar	edit delete
+ Hello	field_birthday	Date	Pop-up calendar	edit delete

Figure A.2.7: Edit/Delete a field

To remove a field:

Step 1: Click Delete in Operation column.

Step 2: On confirmation page, click **Delete** to remove the field, or click **Cancel** to return to **Manage Fields** tab, **Manage Category** page.

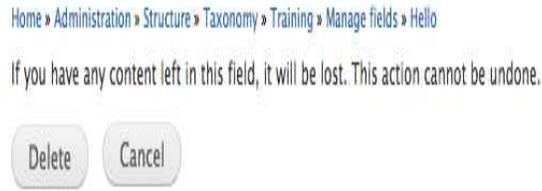


Figure A.2.8: Remove Confirmations

2.1.4. Manage Display tab

This tab is used for managing field displays. Make any change if necessary and click **Submit** to save your work.

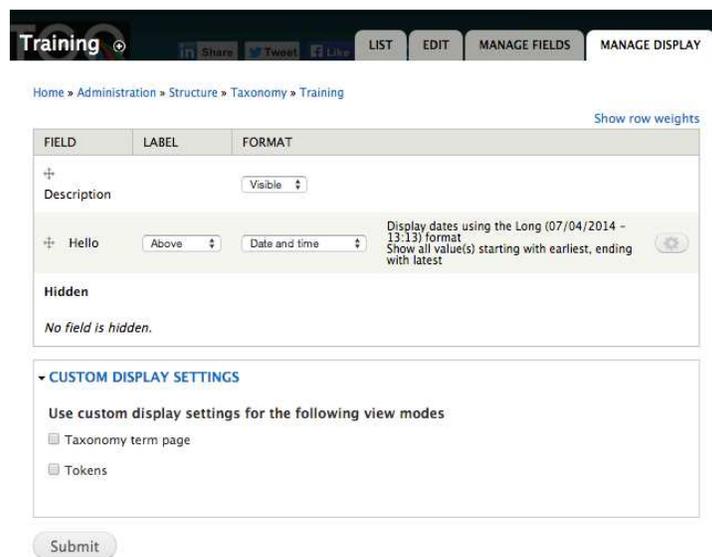


Figure A.2.9: Manage Display tab

A.2.2 Manage Course

From **Training Management** page, navigate and click on **Manage Course** leading to Manage Course page.

Manage Course

Home » Administration » Training Management

Category
ENGINEERING

Course Name *

Course Price *
0

Course Overview Document
Choose File No file chosen
Documents or compress files (.doc, .pdf, .zip, .7z, .rar)

Course Full Document
Choose File No file chosen
Documents or compress files (.doc, .pdf, .zip, .7z, .rar)

Figure A.2.10: Manage Course page

To create a new course:

Step 1: Choose a category for a new course from **Category** drop-down box.

Step 2: Fill all information required in **Course Name** and **Course Price**.

Step 3: Browse files (recomment *.rar and *.zip) and locate them at **Course Overview Document** and **Course Full Documents**.

Step 4: Give a description of this new course.

Step 5: Click **Save**.

To modify or delete existing form, click on **Edit** or **Delete** in **Operation** column in Manage Course table.

A.2.3 Manage Country

From **Training Management** page, navigate and click on **Manage Country** leading to Manage Country page.

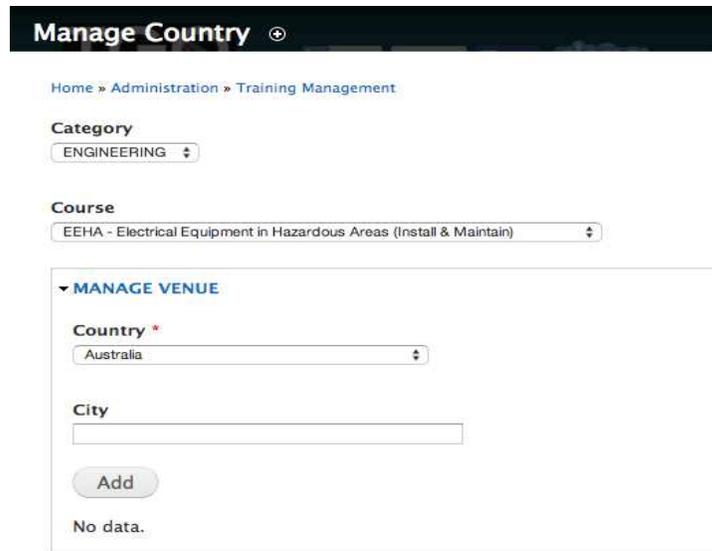


Figure A.2.11: Manage Country page

To create a teaching location:

Step 1: Selecting options on drop-down box **Category** and **Course**.

Step 2: Under the box **Manage Venue**, select a country name at **Country** drop-down box, and fill the city name in **City** box.

Step 3: Click **Add**.

To modify or remove a location, click **Edit** to modify or **Delete** to remove a location in **Operation** column.



Figure A.2.12: Modify a course' location

A.2.4 Manage Schedule

From **Training Management** page, navigate and click on **Manage Schedule** leading to Manage Schedule page.

Home » Administration » Training Management

Category
ENGINEERING

Course
EEHA - Electrical Equipment in Hazardous Areas (Install & Maintain)

Country
Vietnam - DaNang

MANAGE SCHEDULE OF COURSE (ADD/EDIT/DELETE)

Start Date *
04-07-2014
E.g., 04-07-2014

End Date *
04-07-2014
E.g., 04-07-2014

Save

No data.

Figure A.2.13: Manage Schedule page

This page is used for managing teaching schedules; Admin can add new schedules, modify or remove the existed ones.

To add a new teaching schedule:

Step 1: Select an item in **Category**, **Course**, and **Country** drop-down box.

Step 2: Select **Start Date** and **End Date** locating at **Schedule Management** box.

Step 3: Click **Save**.

MANAGE SCHEDULE OF COURSE (ADD/EDIT/DELETE)

Start Date *
04-07-2014
E.g., 04-07-2014

End Date *
04-07-2014
E.g., 04-07-2014

Save

START DATE	END DATE	OPERATIONS	
04/07/2014	10/07/2014	Edit	Delete

Figure A.2.14: Manage Schedule

To modify or delete existing form, click on **Edit** or **Delete** in **Operation** column in Manage Course table.

A.2.5 Filter and Report

From **Training Management** page, navigate and click on **Filter and Report** leading to Filter and Report page.

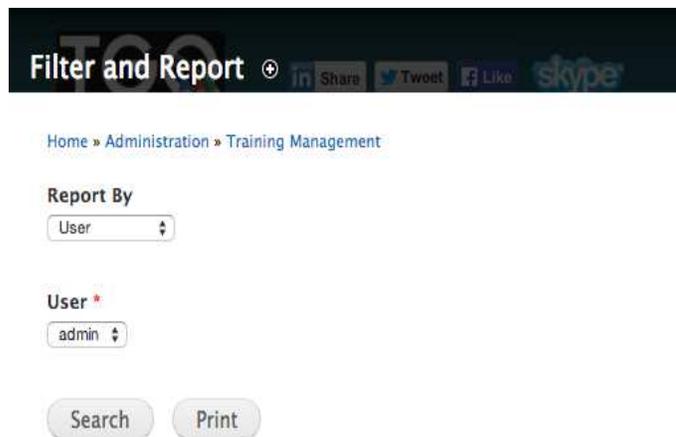


Figure A.2.15: Filter and Report default page

Under the field Report By, there are four (04) actors to be filtered: **User**, **Course name**, **Country**, and **Time**.



Figure A.2.16: Actors to be filtered

To search for data:

Step 1: Select an actor in Report By drop-down box.

Step 2:

(i) If selecting **User**, continue to select username in **User** drop-down box.

(ii) If selecting **Course name**, continue to select factors in **Category** and **Course** drop-down boxes

(iii) If selecting **Country**, continue to select a country name in **Country** drop-down box.

(iv) If selecting **Time**, continue to select year and month in **Select Year** and **Select Month** drop-down boxes.

Step 3: Click Search.

Note: After filtering your data, you may print off your report by clicking the button **Print**. This will show you the PDF layout of the current report.

A.2.6 Manage Refund

From **Training Management** page, navigate and click on **Manage Refund** leading to Manage Refund page.

COURSE NAME	EMAIL	BUY TRANSACTION ID	AMOUNT REFUND	REFUND TRANSACTION ID	STATUS
Installation And Maintenance Of Electrical Equipment In Hazardous Areas	buyer-tong@enclave.vn	93V44870KR8042615	8		Waiting (Change) Delete
SAP2000	buyer-tong@enclave.vn	4PH74161UV7916215	3.25		Waiting (Change) Delete
Installation And Maintenance Of Electrical Equipment In Hazardous Areas	buyer-tong@enclave.vn	4HA00648PB88899546	8		Waiting (Change) Delete
Installation And Maintenance Of Electrical Equipment In Hazardous Areas	buyer-tong@enclave.vn	1KK24625WV5662133	5	2JW49302H81458741	Paid Delete
Installation And Maintenance Of Electrical Equipment In Hazardous Areas	buyer-tong@enclave.vn	1F535413XH149982V	5	3Y848879DH576660R	Paid Delete
Installation And Maintenance Of Electrical Equipment In Hazardous Areas	buyer-tong@enclave.vn	98C10315V9532830F	5	6VU11507RJ725982J	Paid Delete
SAP2000	buyer-tong@enclave.vn	7N967958566467849	2.03	7JU33518607415247	Paid Delete

Figure A.2.17: Manage Refund page

To process a refund request:

Step 1: Click **Change** in **Status** column.

Step 2: Click **Cancel** to discard the refund process, or click **Refund Now** to continue.

Once clicking **Refund Now**, you will be directed to Paypal account.

Step 3: Login to Paypal account and process payment. Once the payment has been completed, the status of refund request will be changed to **Paid** in **Status** column and

refund transaction ID will be recorded in **Refund Transaction ID** column.

Note: To delete a request, click Delete in Status column.

A.2.7 Manage Promotion

From **Training Management** page, navigate and click on **Manage Promotion** leading to Manage Promotion page.



USERNAME	COMMISSION	PROMOTION CODE	OPERATION
amy	AUD1000	TGOTX10	Edit Delete

Figure A.2.18: Manage Promotion page

In this page, the Admin/Owner can modify Commission and Promotion Code of a sale agent. Additionally, the Admin/Owner can remove sale agent.

Noting that, the commission is the value set, so that the sale price through Sale Agent is calculated as:

$$\text{Agent's Price} = (\text{Price} - \text{Commission}) * \text{Quantity}.$$

To modify Commission or Promotion Code:

Step 1: Click **Edit** in **Operation** column.

Step 2: Make necessary changes on the form **Edit Promotion for Re-seller**.

Step 3: Click **Submit** to save your change or **Cancel** to discard your change.

To remove a sale agent, click **Delete** in **Operation** column and confirm request on the following page.

2.8. Manage Certificate

From Training Management page, navigate and click on Manage Certificate leading to Manage Certificate page.

Manage Certificate						
Home » Administration » Training Management						
USERNAME ▲	TRACKING ID	TRANSACTION ID	NUMBER COPIES	PRINTED	REQUEST TIME	CERTIFICATE FILE
admin	33	73R37437JC8256110	2	17	04 July 2014	Download

Figure A.2.19: Manage Certificate page

By clicking **Download** from **Certificate File** column, the Certificate of a specific user will be downloaded as PDF format. The Admin should review the order number in **Number of Copies** column and print off the exact number of certificate copies.

Further more, the printed ones should be sealed manually by TGO and by its partner (i.e., University of Danang). Later, the finished copies will be sent to student via Post Mail.

A.3 INSTRUCTOR/ ASSESSOR

A.3.1 Manage Student

From Training Management page, navigate and click on Manage Student leading to Manage Student page.

Manage Student	
Home » Administration » Training Management	
>	By Student By Student.
>	By Class By Class.

Figure A.3.1: Manage Student page

On this page, an instructor may manage students by individual or by class by clicking **By Student** or **By Class** as Figure 3.3.21.

3.1.1. By Student

By clicking on By Student (Figure 3.3.21), it is leading to management page by student.

Student
Admin Admin (admin) ▾

COURSE NAME ▲	CLASS ID	PERIOD	STATUS	OPERATIONS
Installation And Maintenance Of Electrical Equipment In Hazardous Areas	26	06 May, 2014 - 12 Jun, 2014	Unfinished	Change Delete
Installation And Maintenance Of Electrical Equipment In Hazardous Areas	26	06 May, 2014 - 12 Jun, 2014	Finished	Change Delete
Installation And Maintenance Of Electrical Equipment In Hazardous Areas	26	06 May, 2014 - 12 Jun, 2014	Unfinished	Change Delete
Installation And Maintenance Of Electrical Equipment In Hazardous Areas	27	12 May, 2014 - 16 May, 2014	Unfinished	Change Delete

Figure A.3.2: Manage Student Individually

- To change status of a course, clicking **Change** in **Operations** column. Then, select the different status on the following page. Click **Save** to make change permanent.

- To remove a student from a class, clicking **Delete** in **Operations** column.

3.1.2. By Class

By clicking on By Class (Figure 3.3.21), it is leading to management page by class.

By Class ⊕

[Home](#) » [Administration](#) » [Training Management](#) » [Manage Student](#)

Category
ENGINEERING ▾

Course
EEHA - Electrical Equipment in Hazardous Areas (Install & Maintain) ▾

No data.

Figure A.3.3: Manage Student by Class page

To view an existing class, select options in Category and Course drop-down boxes. If there is an existing class within the selections, it pops out a table alike below, unless nothing changes.

By Class ↕

Home » Administration » Training Management » Manage Student

Category
TRAINING ↕

Course
TRAINING & ASSESSMENT ↕

Country
Vietnam - DaNang ↕

Schedule
21 Jul 2014 - 25 Jul 2014 ↕

STUDENT ID	STUDENT NAME	CLASS ID	SCHEDULE	STATUS	OPERATIONS
1	Admin Admin	9	21 Jul, 2014 – 25 Jul, 2014	Not Yet Competant	Change Delete

Figure A.3.4: Existing Class

Noting that, you may change class by selecting different **Country** or **Schedule** above the table. A different sample class is show as Figure 3.3.25. Remember that, a class might have many students and the number of students in one class should not exceeded 16.

Category
Hazardous Areas courses ↕

Course
Installation And Maintenance Of Electrical Equipment In Hazardous Areas ↕

Country
Vietnam - Danang ↕

Schedule
06 May 2014 - 12 Jun 2014 ↕

STUDENT ID	STUDENT NAME	CLASS ID	SCHEDULE	STATUS	OPERATIONS
1	Admin Admin	26	06 May, 2014 – 12 Jun, 2014	Finished	Change Delete
1	Admin Admin	26	06 May, 2014 – 12 Jun, 2014	Finished	Change Delete
1	Admin Admin	26	06 May, 2014 – 12 Jun, 2014	Finished	Change Delete

Figure A.3.5: Existing Class – Different

- To modify any student, click **Change** in **Operations** column and make necessary change.
- To remove a student, click **Delete** in **Operations** column and confirm on the following page.

A.3.2 Manage Class

From **Training Management** page, navigate and click on **Manage Student** leading to Manage Student page.

Category
CAD for Electrical & Instrumentation

Course
CAD (Electrical Design and Instrument Manager)

Country
Vietnam - DaNang

Time
01 Apr 2014 - 02 Apr 2014

STUDENT ID	FIRST NAME	LAST NAME	ASSESSMENT 1	PERCENTAGE 1	ASSESSMENT 2	PERCENTAGE 2	ASSESSMENT 3	PERCENTAGE 3
1	Admin	Admin	7	20%	6	40%	3	20%
55	Quy	Tong	7	70%	5	30%	0	0%

Import Excel file file
Choose File No file chosen
Documents or compress files (*.xls, *.xlsx)

Import Excel file Export to Excel file

Figure A.3.6: Manage Class page

The page **Manage Class** is designed to help instructors/assessors input assesment results faster and easier.

To input a class's assesment result:

Step 1: Click Export to Excel file to download the excel file including class information and list of students.

Step 2: Make necessary changes in the downloaded file.

Step 3: Click Choose File and select the edited file to upload.

Step 4: Click Import Excel file to upload file.

- To modify a student's assesment result, click **Edit** in **Operation** column and make changes.

A.4 SALE AGENT

From TGO dashboard, navigate and click on **Sale Agent Center** on menu bar.

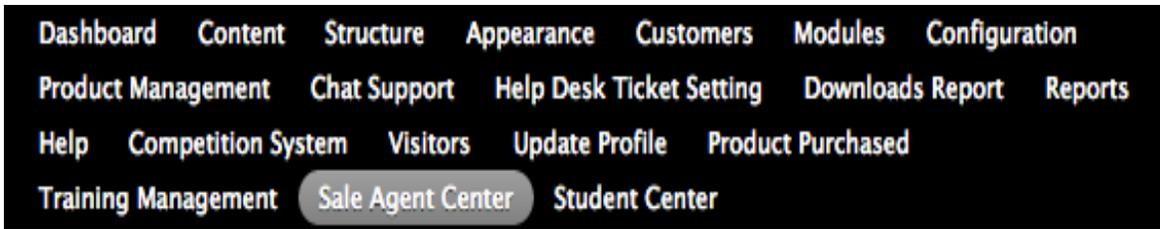


Figure A.4.1: Sale Agent Center

On this page, a sale agent can be able to view and print off receipt what s/he had purchased.



Figure A.4.2: Sale Agent Center page

To view and print off receipt:

Step 1: Click **Details**.

Step 2: Click **Print** for printing off the first part of receipt or **Print (full)** to print off the whole receipt (Figure 3.3.29).

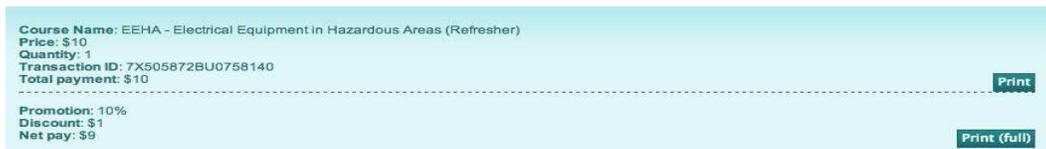


Figure A.4.3: Courses' Receipt

Step 3: Download to save the receipt as PDF file.

A.5 STUDENT

From TGO dashboard, navigate and click on **Student Center** on menu bar.

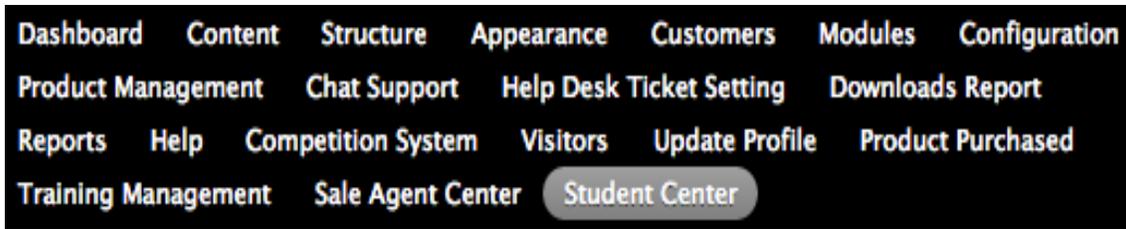


Figure A.5.1: Student Center

It leads to the Student Center page as below.

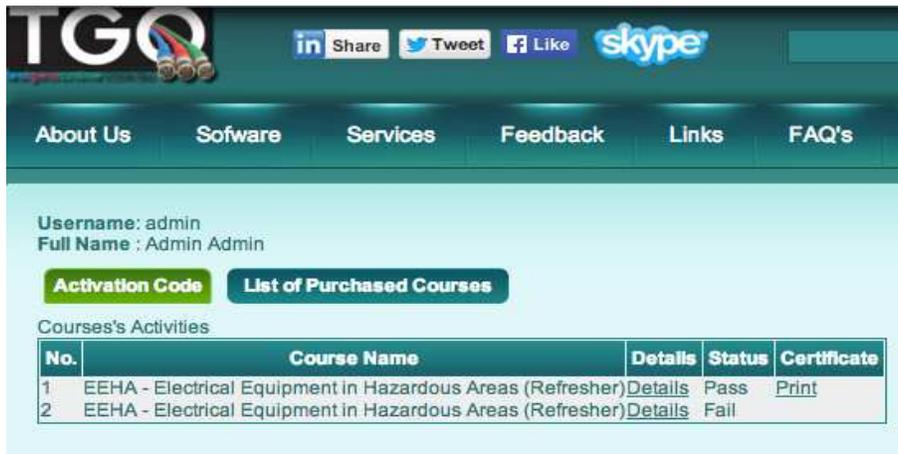


Figure A.5.2: Student Center page

A.5.1 Activate Code

To activate a course, student should:

Step 1: Click **Activation Code** on the page **Student Center**.

Step 2: Insert the code, which might be provided by the system or by sale agent.

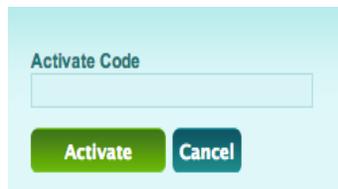


Figure A.5.3: Activate Code

Step 3: Click **Activate** button to execute or **Cancel** to discard. Whether your activation process is successful or not, the system will notify you.

A.5.2 List of Purchased Course

This page shows all purchased and activated course of a student.

No.	Course Name	Net Pay	Quantity	Status	Activation Code	Invoice
1	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$10	1	Cancel	0DX1AKFEMN	4NX95426BA227341B
2	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$10	1	Cancel	T2U0LMW0LJ	5PL429081E503815C
3	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$10	1	Cancel	49I939PR1K	5JM60719354632425
4	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$9	1	Cancel	BSL9FWTDMU	2BU592039J998930X
5	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$9	1	Cancel	VF09BUJO8Y	7X505872BU0758140
6	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$45	5	Cancel	6UYQWZRS4S	1U363348R12747744

Figure A.5.4: List of Purchased Courses page

To cancel a course:

Step 1: Click **Cancel** in **Status** column.

Step 2: Click **Confirm** to send cancel request to the system or **Cancel** to discard the request.

Category: ENGINEERING
 Course Name: EEHA - Electrical Equipment in Hazardous Areas (Refresher)
 Country: Vietnam - Danang
 Price: \$10
 Refund Amount: \$5 (Refund 50%)

Confirm **Cancel**

Figure A.5.5: 5 Cancel Course

The system will notify you once cancel request has been sent successfully. Then, you will be directed to the page **Student Center**. Going to the page **List of Purchase Course**, the status of canceled course had been changed to **Pending Refund**.

No.	Course Name	Net Pay	Quantity	Status	Activation Code	Invoice
1	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$10	1	Pending Refund	0DX1AKFEMN	4NX95426BA227341B
2	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$10	1	Cancel	T2U0LMW0LJ	5PL429081E503815C
3	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$10	1	Cancel	49I939PR1K	5JM60719354632425
4	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$9	1	Cancel	BSL9FWTDMU	2BU592039J998930X
5	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$9	1	Cancel	VF09BUJO8Y	7X505872BU0758140
6	EEHA - Electrical Equipment in Hazardous Areas (Refresher)	\$45	5	Cancel	6UYQWZRS4S	1U363348R12747744

Figure A.5.6: Course's status

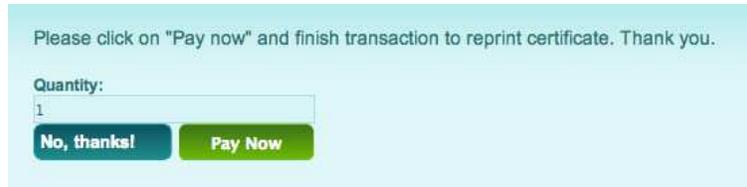
A.5.3 Courses' Activities

Under the Courses' Activities, students can view status of completed course: Fail or Pass. On each passed course, student can request additional certificates.

To request additional certificates:

Step 1: Click Print in Certificate column (Figure 3.3.31).

Step 2: Insert number to the box **Quantity**.



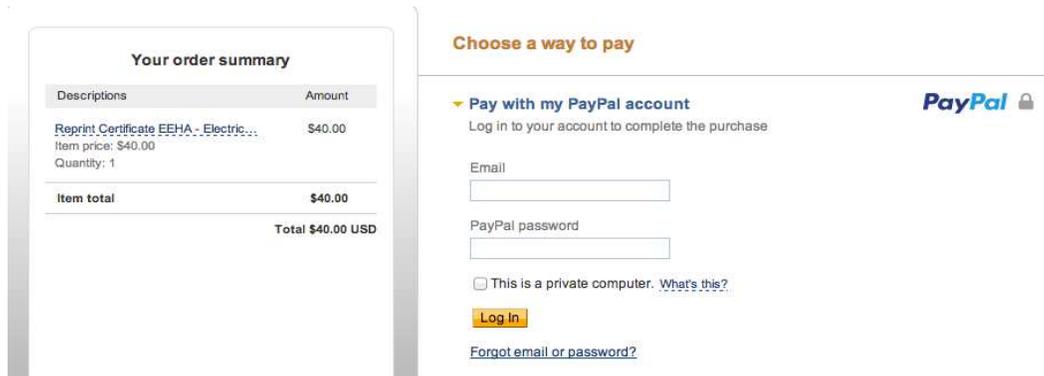
Please click on "Pay now" and finish transaction to reprint certificate. Thank you.

Quantity:
1

No, thanks! **Pay Now**

Figure A.5.7: Request Certificate - Quantity

Step 3: Click No, **thanks!** to discard your request. Or click **Pay Now** leading to Paypal page. Log in to Paypal and process the payment.



Your order summary

Descriptions	Amount
Reprint Certificate EEHA - Electric...	\$40.00
Item price: \$40.00	
Quantity: 1	
Item total	\$40.00
Total \$40.00 USD	

Choose a way to pay

Pay with my PayPal account 

Log in to your account to complete the purchase

Email

PayPal password

This is a private computer. [What's this?](#)

Log In

[Forgot email or password?](#)

Figure A.5.8: Certificate Payments