Fish for Life

Capstone Project

Fall 2010

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I. Project Overview and Objectives

Project Overview

Our project is to create a database for the Fish for Life organization. This database will contain sensitive information about juveniles and volunteers; therefore, the database must be secure and user friendly.

Project Statement

Fish for Life is a local Corpus Christi organization founded by Mr. Chuck Goodwin. The objective of Fish for Life is to help at-risk teenagers that are in the juvenile system and don't have a strong parental figure (usually the father). Volunteers help the organization by planning events that will help the teenagers develop a positive bond between them and their mentor. Such events include fishing, hockey games, baseball games, hunting, and more. What Fish for Life needs is a database to store private information about each juvenile, volunteer, and contributor. This information needs to be highly secured since legal issues are involved with the juveniles.

Our group was responsible for creating the database and modifying the website as needed so that the database will be accessible from the website. It was also our job to develop new ideas that could be used by Fish for Life to help them grow and gain more attention. From these ideas, we decided to create an Android smartphone application that accesses information regarding the organization's calendar information, local calendars, and local weather. It also includes a small recreational game called "Fish Squish."

Project Objectives

- Create a secure database.
- Modify the website as needed to make the database easily accessible.
- Add new features to make the website more user-friendly and attractive to users.
- Create a smartphone application that will be helpful to Fish for Life members.

The first objective of our program is to build a database. The database will contain personal information about juveniles, volunteers, and contributors. It will store login information for an administrative user.

The second objective is to modify the website to connect the database to it. This involved changing the website host and re-creating the website from scratch.

The third objective is to add new innovative features to add to the website to make it modern, attractive, and user-friendly. This included adding a blog, a calendar of events, and a link to the twitter account. Also, we implemented a custom administrator login and a photo manager.

The fourth objective is to create a smartphone application using Android. The purpose of this application is to contain useful and entertaining information that could be used by Fish for Life members on-the go. The application will have access to the Fish for Life website and its calendar of events, to local upcoming Corpus Christi events, and to local Corpus Christi weather. Its last component is the game "Fish Squish."

II. Requirements

Plain-English Description

The two main components of this project, the website and the database, will be accessible on the Internet. We were given a basic website to work with; it was nice and simple to use but it was not capable of expanding to fit the needs of a growing organization. The original web host, www.mychurchwebsite.net, basically handled the website format and structure. Although the web host made their sites user-friendly, it was at a high cost. When assigned this project, we knew that the most important task was to have a database connect to the website. We soon found out, however, that the web host did not support external databases and that the internal one it handled was too limited and restricted to suit our needs.

We began searching for an alternative web host. After consulting with Fish for Life president Mr. Chuck Goodwin, we decided on the web host: InMotion Hosting. They had support for an expandable database, and they happened to be much less expensive as well. After changing to the new web host, we began to develop the new website from scratch since the old web host would not allow us to transfer their templates. Using Dreamweaver software, we managed to create a new website that closely resembled the old site. We kept it similar to the old sight so that users would not be disoriented or confused upon entering the new site.

Next we began constructing the database. Originally we had tried to use a Java applet to connect our database with the website, but we discovered that our web host did not support Java applets. So we re-routed our design and developed the connection using phpMyAdmin. This connection enables the administrator to access and modify the database from the website. Some of the changes the administrator can make include adding a new volunteer, contributor, and juvenile; deleting a pre-existing volunteer, contributor, and juvenile; and editing a pre-existing volunteer, contributor, and juvenile. The administrator can also manage his login information for the database.

Any user can browse the website and view all links unless they require a login. For those links that require a login, only the administrator has access to them. Upon logging in to the various components, he is allowed to make changes that are uploaded to the website. The components

include a photo manager, a blog, a Twitter account, a calendar of Events, the website itself, and the database. The only database-related link that any user is allowed to access is that of "Volunteers Needed." Here, any user can submit his or her information as long as the fields are entered correctly. Once submitted, the user's information is stored in the database with a status of 0 indicating not approved. The administrator can now go in a view the new information and choose whether to approve or deny the applicant.

The last component of the project is the Android smartphone application. It was important that we try to implement another feature that would help Fish for Life grow in the community. So we decided that our project required one more element that would help the organization reach out to both members and others in the community. The application will provide helpful and entertaining information to all users. We began writing the Android application using Java with the Eclipse IDE connected to an Android SDK. However this work was tedious and slow. In the long run, it would have allowed for more functionality, but we were limited in time. Therefore, we applied for a beta version of Google's App Inventor. This online program consists of a very user-friendly interface that literally employs the use of drag-and-drop items. It basically walked around all code so that users with little coding experience could still develop interesting apps.

The finished product is an application with five buttons to navigate to different information. The first menu option that appears on the home screen, "FFL Website," provides a link directly to the Fish for Life homepage. Although this is not a mobile version of the website, most of the website's functionality is still present. The second menu option available, "FFL Events," provides a direct link to the Fish for Life calendar of events. This is also not a mobile-friendly site, but the user can still view the dates, events, and event details. The next button "CC Weather" provides a link to a mobile-friendly site that contains basic information regarding Corpus Christi weather. We decided that this would be a useful option for when Fish for Life members wanted to attend an outdoor event. The next button "CC Events" provides a link to a mobile friendly site that allows the user to choose events based on category. Categories include concerts, sports, festivals, fundraisers, and much more. Upon selecting a category, the user will be provided with a list of related events in the Corpus Christi area. We saw this link as a necessary addition to the application because Fish for Life members are always looking for events that the at-risk teenagers can get involved in and enjoy.

Lastly, as a fun item, the button "Fish Squish!" directs the user to a game screen. Since App Inventor does not yet support multiple screens, the game screen is simply layered over the home screen. It is invisible until the button is pressed in which it appears and the home screen becomes invisible. When the game is displayed, a fish and a mine will be moving on the screen. A timer will be counting down from thirty seconds. In that time frame, the user must tap the fish as many times as possible. The phone will vibrate an increment the score when the user successfully "squishes a fish." However, if the user hits the mine, the phone will vibrate and increment the counter for mines. When three mines are hit, the game is over and the score and timer are reset. The user may choose to select the "Reset" button at any time which resets all values back to their

initial setting. The user may also select the button “Back to Home” at any time and the home screen will reappear.

Functional vs. Non-functional

Functional Requirements

The functional requirements of the project are centered around two kinds of users: the administrator and the general web user. The administrator will have access to all the same functionality as the general web user as well as access to more secure regions of the website and database. The general web user is allowed to view the Fish for Life website and most of its links. The only links the general web user will not have access to are those that require a login. Some of the many things the general web user can do include viewing the calendar of events, the photos, the Twitter, the blog, the Fish for Life mission statement, the list of directors, and the list of contributors as well as some other links. The general web user can only view most of the content. He may be allowed to interact more on the blog and Twitter for example. Lastly, the general web user can choose to volunteer for the organization. He will go to the link “Volunteers Needed” and enter the required information and submit it to the organization. He will then wait as an administrator approves or denies his request.

The administrator has more access to features on the website and database. He is allowed to manage the photos and photo albums, the Twitter account, the blog account on Blogger, the Fish for Life exclusive Email supported by Roundcube. He can also manage the website from the web host InMotion Hosting. Lastly, he can manage the database and its tables.

The Android smartphone application can be used by any user that has downloaded the application. The user can check the Fish for Life website, the Fish for Life calendar of events, the local Corpus Christi weather, and a list of upcoming local Corpus Christi events. The user can also play a simple game called “Fish Squish” in which the user tries to tap on a moving fish as many times as possible in thirty seconds while trying to avoid mines moving on the screen.

Non-Functional Requirements

Among many non-functional requirements, the project must be very user-friendly. The website and database will very likely be used by people with little more experience than using a computer for everyday tasks. We need to make sure that both the website and database are easily accessed, easily navigated, and easily modified. Another requirement relating to this is that the project should work in all browsers. The website has also been tested at various screen resolutions to ensure consistency. A user should have access to online elements of this project from anywhere. Lastly, if a user applies to be a volunteer for the organization, he must wait to be approved by the administrator. Part of this approval involves performing a background check, and possible an interview, to ensure that the applicant will be an appropriate and safe volunteer, especially since they will be working close to teenagers.

Structured Requirements

Website

1. Any user (either administrator or general web user) should be allowed to view the website and have access to certain pages.
    a. The user should be allowed to view the homepage at www.fishforlifecc.com.
    b. The user should be able to click the link "Home" and return to the homepage.
    c. The user should be able to click the link "About FFLCC" and read the organization's mission statement.
    d. The user should be able to click the link "Directors" and view a list of the organization's leaders.
    e. The user should be able to click the link "Photos" and view a slideshow of pictures pertaining to the organization.
        i. From this page, the user is also allowed to click a link in the shape of the Picasa symbol in the bottom right corner. This will let the user view whole albums and their pictures.
    f. The user should be able to click the link "Sponsors" and view a list of Fish for Life's contributors.
    g. The user should be able to click the link "Links" and view a list of links. These links will connect the user to various sites that are supported by and supportive of Fish for Life.
    h. The user may click on the homepage calendar to simply view the dates of any month.

i. The user may click the link “Events Calendar” and view a more in-depth events calendar supported by Google.
    i. The user may select to change the week, month or day displayed.
    ii. The user may choose to print the calendar.
    iii. If there are upcoming events listed on the calendar, the user is allowed to click on them to view details.

j. When the user rolls his mouse over the button “Follow Us,” he may choose between Twitter and the blog by Blogger.
    i. When the user selects Blogger, he will be redirected to the main page of the blog.
        1. From the Blogger main page, the user will have the option to view blog posts and archives.
    ii. When the user selects Twitter, he will be redirected to Fish for Life’s main Twitter page.
        1. From the Twitter main page, the user will have the option to view tweets and other information.

k. The user may click the link “E-mail Us” under Contact Info and Microsoft Outlook will attempt to load to enable the user to send an email to the administrator.

l. The user may click the link “Volunteers Needed.” He will be directed to a page displaying a fill-out form.
    i. The user should be allowed to enter his first name.
    ii. The user should be allowed to enter his last name.

iii. The user should be allowed to enter his phone number.
    1. The webpage should check to ensure that the phone number is all integers.
    2. The webpage checks to validate the correct length for the phone number (ten digits).
iv. The user should be allowed to enter his street address.
v. The user should be allowed to enter his state from a drop down menu.
vi. The user should be allowed to enter his zip code.
    1. The webpage should check to ensure that the zip code is all integers.
    2. The webpage checks to validate the correct length for the zip code (five digits).
vii. The user should be allowed to enter his Email address.
    1. The webpage should check to ensure that the "at sign" (@) is present in the Email address.
    2. The webpage should check to ensure that the Email address contains a dot (.).
viii. The user should be allowed to enter a date.
    1. If the user leaves the date fields blank, the current date will automatically be filled in upon submission.
ix. The user should be allowed to select the "Reset" button and all fields will be cleared.
x. The user should be allowed to select the "Submit" button.

1. If any of the fields are left blank upon submission (excluding the date), the submission will fail and display a message notifying the user of the failed submission. He will be allowed to try again if he chooses.
2. If one of the fields is entered incorrectly, the submission will fail and display a message notifying the user of the failed submission. He will be allowed to try again if he chooses.
3. If the user has entered in all the fields correctly, the submission will go through and his information will be entered into the database with a status of 0. This means he has not yet been approved as a volunteer by the administrator.

2. The administrator should be allowed to do everything the general web user can do. He should also be allowed to login to website applications and make updates and alterations.
    a. The administrator should be allowed to navigate to the "Events Calendar" page and click the bottom right link "Google Calendar."
        i. Upon clicking the link, he will be redirected to a Google login screen.
        ii. Upon entering his correct login information, his (Fish for Life's) calendar is displayed on the home screen. He now has access to make changes to his calendar.
        iii. Upon making changes to the calendar, the changes will be uploaded to the display calendar on the Fish for Life website.

b. The administrator should be allowed to navigate to the “Photos” page and click the bottom right link Picasa icon.
    i. Upon clicking the link, he will be redirected to a page displaying photo albums and more detailed Picasa information. From this page at the top right, the administrator may choose to sign in to Picasa.
    ii. Upon entering his correct login information, his Picasa home page will be displayed on the home screen. He now has access to make changes to his photo album(s).
    iii. Upon making changes to his album(s), the changes will be uploaded to the displayed slideshow on the Fish for Life website.
c. The administrator should be allowed to navigate to the blog supported by Blogger.
    i. Upon clicking the blog link, he will be redirected to the blog homepage. At the top right, he may choose to sign in.
    ii. Upon entering his correct login information, his Blogger homepage will be displayed. He now has access to make changes to the blog.
    iii. Upon making changes to the blog, the changes will be uploaded to the blog.
d. The administrator should be allowed to navigate to the Twitter page.
    i. Upon clicking the Twitter link, he will be redirected to the Twitter homepage. At the top right, he may choose to sign in.
    ii. Upon entering his correct login information, his Twitter homepage will be displayed. He now has access to update his Twitter account.

iii. Upon making changes to his Twitter account, the changes will be uploaded.

e. The administrator should be allowed to login to the web host.
    i. From the Fish for Life homepage, the administrator should be allowed to click the link on the bottom left: “Site Administration.”
    ii. Upon clicking the link, he will be redirected to the page: “Admin Links.” From here, the administrator should be able to click on the link “Administrator Tools.”
    iii. Upon clicking the link, he will be redirected to a login page where the administrator should be allowed to enter a username and password, and select “Ok” or “Login.”
    iv. Upon entering the correct login information, the web host homepage for Fish for Life will be displayed. He now has access to update and manage the Fish for Life website.
    v. Upon making changes to the website, the changes will be uploaded to the website.
f. The administrator should be allowed to login to Fish for Life’s exclusive email supported by Roundcube.
    i. From the Fish for Life homepage, the administrator should be allowed to click the link on the bottom left: “Site Administration.”
    ii. Upon clicking the link, he will be redirected to the page: “Admin Links.” From here, the administrator should be able to click on the link “Member Email.”

iii. Upon clicking the link, he will be redirected to a login page where the administrator should be allowed to enter a username and password, and select “Ok” or “Login.”

iv. Upon entering the correct login information, he will be redirected to the website’s exclusive Email homepage. Now he has access to Email options.

v. From here, he can send and receive Emails on behalf of the website as well as view other related information.

g. The administrator should be allowed to login to the database.

i. From the Fish for Life homepage, the administrator should be allowed to click the link on the bottom left: “Site Administration.”

ii. Upon clicking the link, he will be redirected to the page: “Admin Links.” From here, the administrator should be able to click on the link “Database Login.”

iii. Upon clicking the link, he will be redirected to a login page where the administrator should be allowed to enter a username and password, and select “Log in.”

1. If the administrator forgets to enter his password, the login will fail and display a message that he forgot his password.
2. If the administrator forgets to enter his username, the login will fail and display a message that he forgot his username.

3. If the administrator forgot his password, he should be allowed to click on the link “Forgot your password?” and a new page will load requesting the username.
    a. If the administrator enters his correct username and selects “change password,” a random password will be generated and sent to his email.
    b. If the administrator enters an invalid username, a message will be displayed notifying him that his password could not be reset.
4. Upon correctly entering his login information, the administrator will be redirected to the homepage for the database. He now has access to the database and can manage the information stored within it.

Database

1. The project should allow the administrator to manage information in a database.
    a. The project should allow the administrator to manage information about juveniles into a database table.
        i. The user is required to enter an ID number for the juvenile.
        ii. The user is required to enter the first name of the juvenile.
        iii. The user is required to enter the last name of the juvenile.
        iv. The user is required to enter a phone number by which to contact the juvenile.
        v. The user is required to enter the first name of the juvenile’s guardian.

vi. The user is required to enter the last name of the juvenile's guardian.

vii. The user is required to enter a phone number by which to contact the juvenile's guardian.

viii. The user is required to enter a street address for the juvenile.

ix. The user is required to enter a city for the juvenile.

x. The user is required to enter a state for the juvenile.

xi. The user is required to enter a zip code for the juvenile.

xii. The user is required to enter an Email address by which to contact the juvenile.

xiii. The user is required to enter the name of the school that the juvenile attends.

b. The project should allow the administrator to manage information about volunteers for Fish for Life into a database table.

i. The user is required to enter an ID number for the volunteer.

ii. The user is required to enter the first name of the volunteer.

iii. The user is required to enter the last name of the volunteer.

iv. The user is required to enter a phone number by which to contact the volunteer.

v. The user is required to enter a street address for the volunteer.

vi. The user is required to enter a city for the volunteer.

vii. The user is required to enter a state for the volunteer.

viii. The user is required to enter a zip code for the volunteer.

ix. The user is required to enter an Email address by which to contact the volunteer.

x. The user is required to either accept or deny a volunteer. Until the volunteer is accepted or declined, his status remains a 0.

1. If the volunteer is accepted, his status becomes 1.
2. If the volunteer is denied, his information will be deleted from the database.

c. The project should allow the administrator to manage information about contributors to Fish for Life into a database table.

i. The user is required to enter an ID number for the contributor.

ii. The user is required to enter the first name of the contributor. If the contributor is a business, the first name of the owner or spokesperson for the company will be entered.

iii. The user is required to enter the last name of the contributor. If the contributor is a business, the last name of the owner or spokesperson for the company will be entered.

iv. The user is required to enter a phone number by which to contact the contributor.

v. The user is required to enter a street address for the contributor.

vi. The user is required to enter a city for the contributor

vii. The user is required to enter a state for the contributor.

viii. The user is required to enter a zip code for the contributor.

ix. The user is required to enter an Email address by which to contact the contributor.

x. If the contributor is a business or affiliated with a business, the user is required to enter the name of the business.

d. The project should allow the administrator to manage his user login information into a database table.

i. The user is required to have a unique username.

ii. The user is required to have a unique password.

iii. The user is required to have a valid Email address.

Android Smartphone Application

1. The project supports an Android smartphone application that provides helpful and entertaining information to Fish for Life members.

a. A user is allowed to access the Fish for Life application named FFL once downloaded to his Android mobile phone.

i. The user may click the button "FFL Website" to view the Fish for Life website.

1. The user should be able to navigate to most options on the website like in a regular web browser.

ii. The user may click the button "FFL Events" to view the Fish for Life events calendar.

1. The user should be able to view the calendar and any events and associated details like in a regular web browser.

iii. The user may click the button "CC Weather."

1. The user will be redirected to a mobile website displaying local weather information for the Corpus Christi area.

iv. The user may click the button “CC Events.”
    1. The user will be redirected to a mobile website that displays a list of popular event topics (i.e. concerts, festivals, sports, etc.).
    2. Upon selecting any one of these categories, the user will be redirected to a page that displays all upcoming events in that category for the Corpus Christi area.

v. The user may click the button “Fish Squish!”
    1. A new game screen will appear. The user should be allowed to play the game.
        a. The user has thirty seconds per game. This is indicated by a timer below the game screen.
        b. The user must try to touch the “fish” which moves around the screen every half second.
            i. If the user successfully touches the “fish” the phone will vibrate, and increment the “score” counter by one. This “score” counter is below the timer.
        c. The user must try to avoid touching the “mine” which moves around the screen every second.
            i. If the user successfully touches a “mine” the “mine” counter will be incremented by one.

This “mine” counter is below the “score” counter.

ii. If the user successfully touches three mines, the game is over and resets all values to zero and the timer back to thirty seconds.

d. The user has the option to click the “Reset” button found below the counters.

i. If the user selects the “Reset” button, all values will be set back to zero and the timer will be set back to thirty seconds.

e. From the game screen, the user has the option to click the “Back to Home” button.

i. If the user selects this button, the home screen will appear.

III. Analysis

After talking to Chuck and coming up with our requirements we had to decide what the best approach to the problem was. After looking through the website that Chuck currently had, we found out that it did not support a database. We looked for better web host solutions for him and we realized he was over paying for his current web host. We decided that we were going to have to build him a new website along with the database that he wanted.

After researching new web hosts we decided that Go Daddy would be one of the best web host solutions for him. After presenting this information to Chuck he agreed that we needed a new host for his website, especially after he saw the price. But he didn't like Go Daddy, mainly because of the commercial and the type of sexual advertisement that they produce. So we had to research for another web host. We came across InMostion Hosting, which was cheaper and had all the tools that we needed.

Chuck agreed and purchased web hosting from InMotion Hosting and this is when we began the analysis of how we were going to create the website and the database. We had little html experience and decided that our best bet was to use Dreamweaver to complete the website. We also decided to use a Java applet for the database interface.

Our last part of analysis was to think of what we could build for Chuck that could help him, and also challenge us more so than the database and website. We thought of a mobile application that can be used to find out local information and direct the user to the website. We also wanted to add a game to the application to give it more of an appeal.

IV. Design

Design Rationale

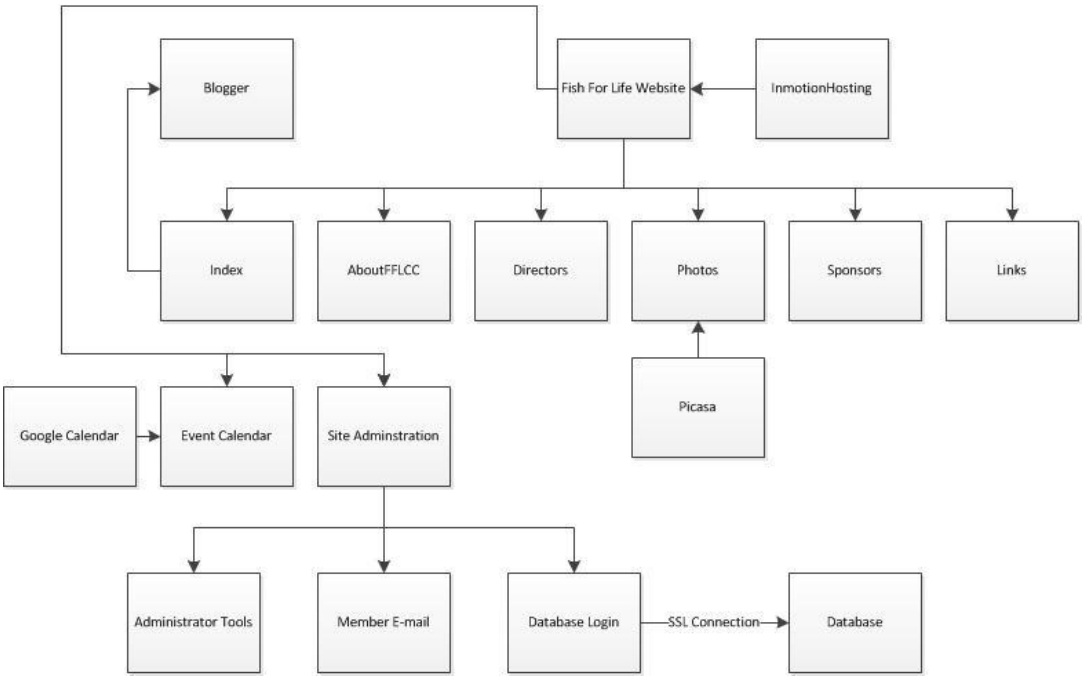
We wanted to start basic with the design. We wanted to create simple block diagrams to be sure what we wanted in functionality for the website and for the database. These block diagrams helped us progress to the ERD and the Use Cases that we used for the website.

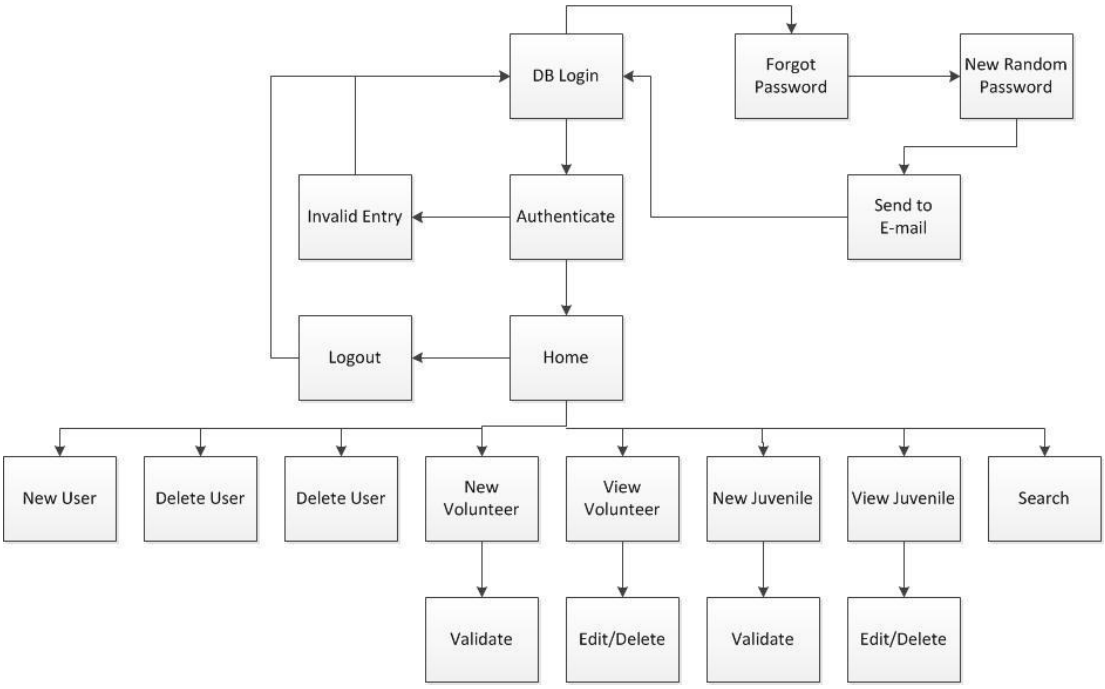
From the Use Cases we were able to get more complex and move on to the sequence diagrams, these were more difficult to understand and create, but it gave us more of an idea of how we wanted the

website to work, and how to link the website to the database. It also gave us the idea to use SSL to securely connect to the database from the website.

1. **Block Diagrams**
2. **Use Case Diagrams**
3. **Sequence Diagrams**
4. **ERD Diagram**

1) Block Diagrams

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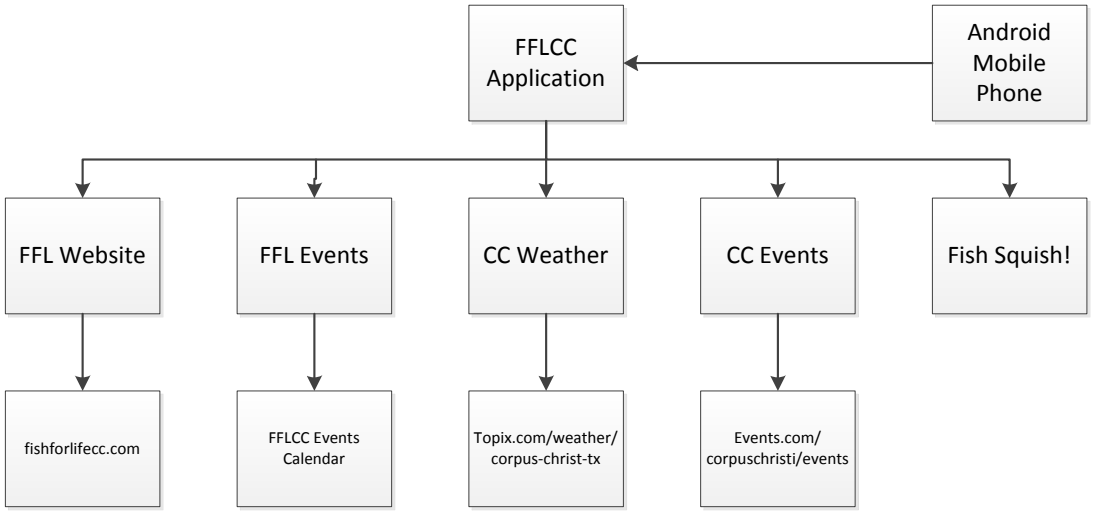
New Random Password
Invalid Entry
Authenticate
Send to E-mail
Logout
Home
New User
Delete User
Delete User
New Volunteer
View Volunteer
New Juvenile
View Juvenile
Search
Validate
Edit/Delete
Validate
Edit/Delete


FFLCC Application
Android Mobile Phone
FFL Website
FFL Events
CC Weather
CC Events
Fish Squish!
fishforlifecc.com
FFLCC Events Calendar
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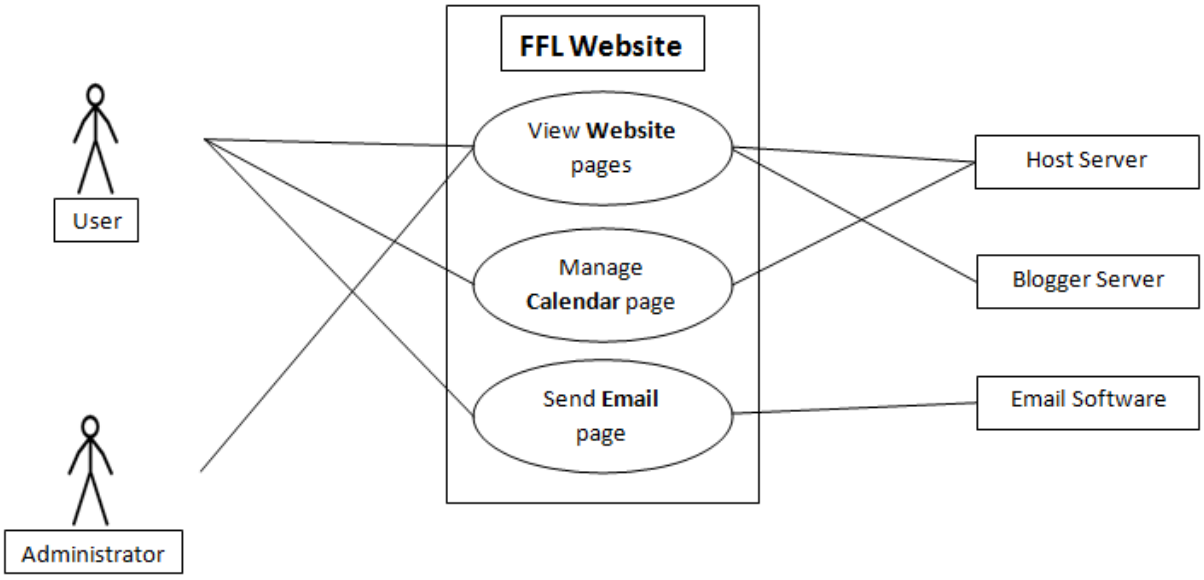
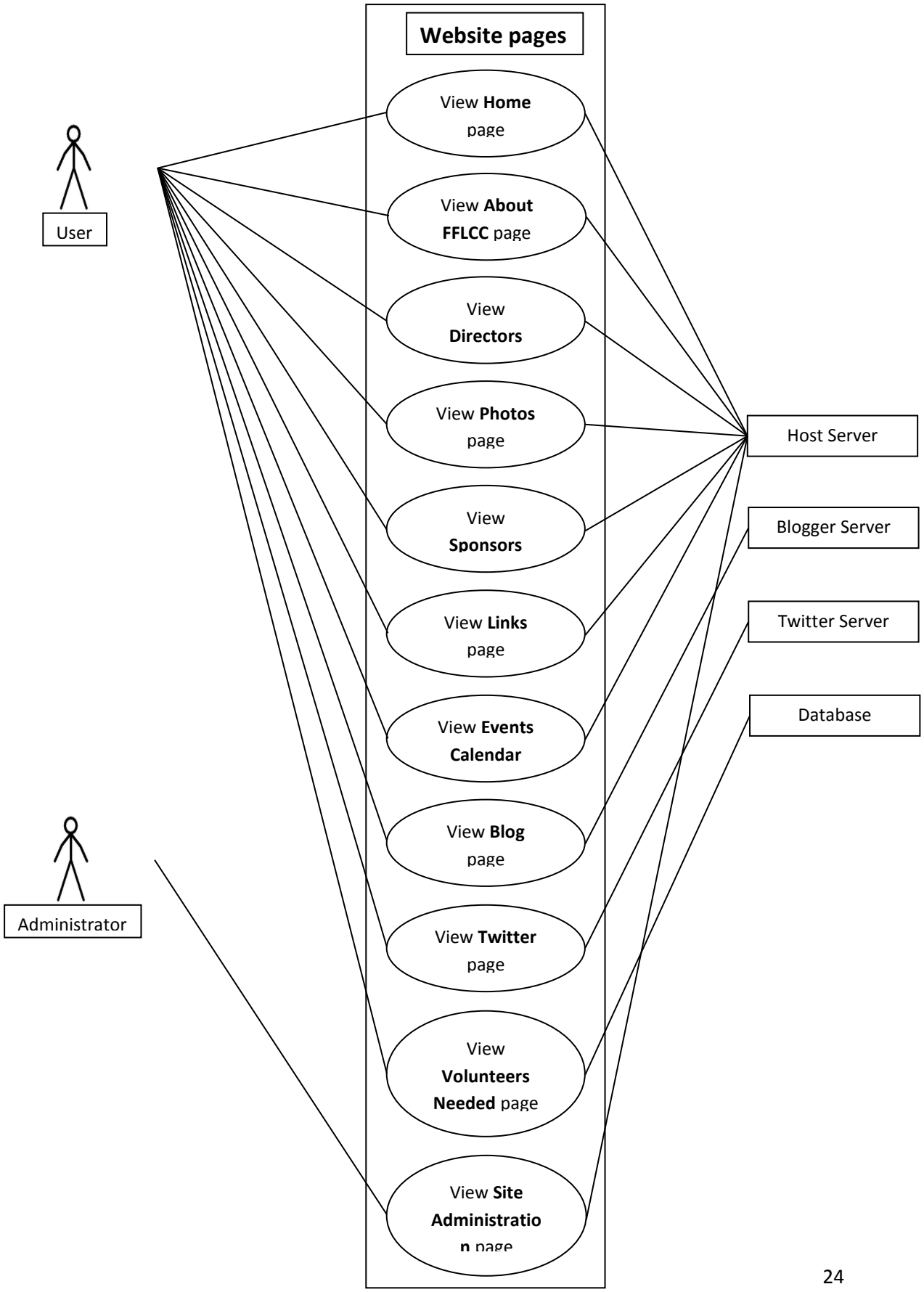
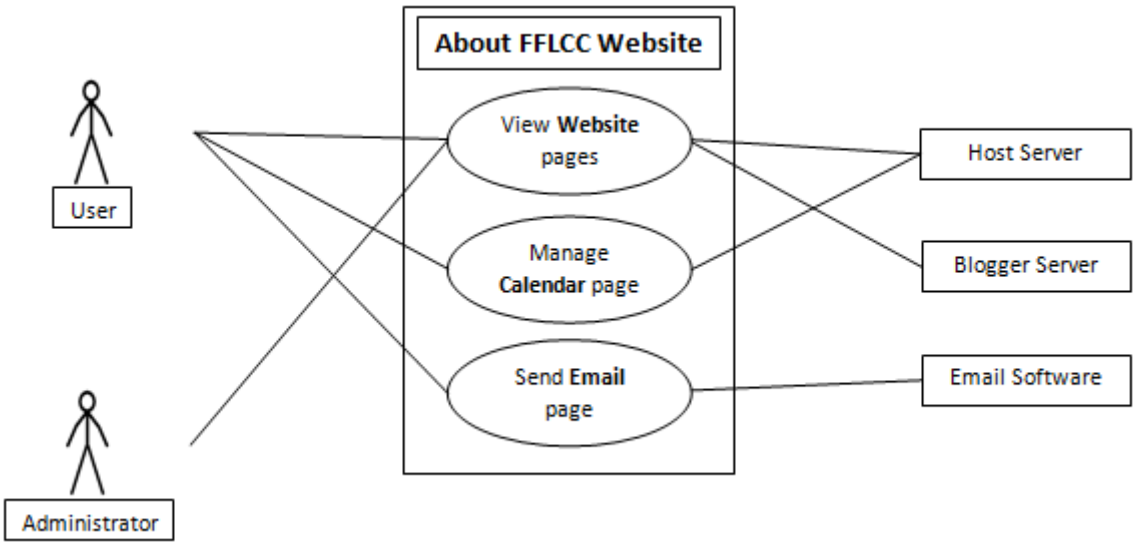
Events.com/ corpuschristi/events

2) Use Case Diagrams




Website pages
View **Home** page
View **About FFLCC** page
View **Directors**
View **Photos** page
View **Sponsors**
View **Links** page
View **Events Calendar**
View **Blog** page
View **Twitter** page
View **Volunteers Needed** page
View **Site Administratio n** page
User
Administrator
Host Server
Blogger Server
Twitter Server
Database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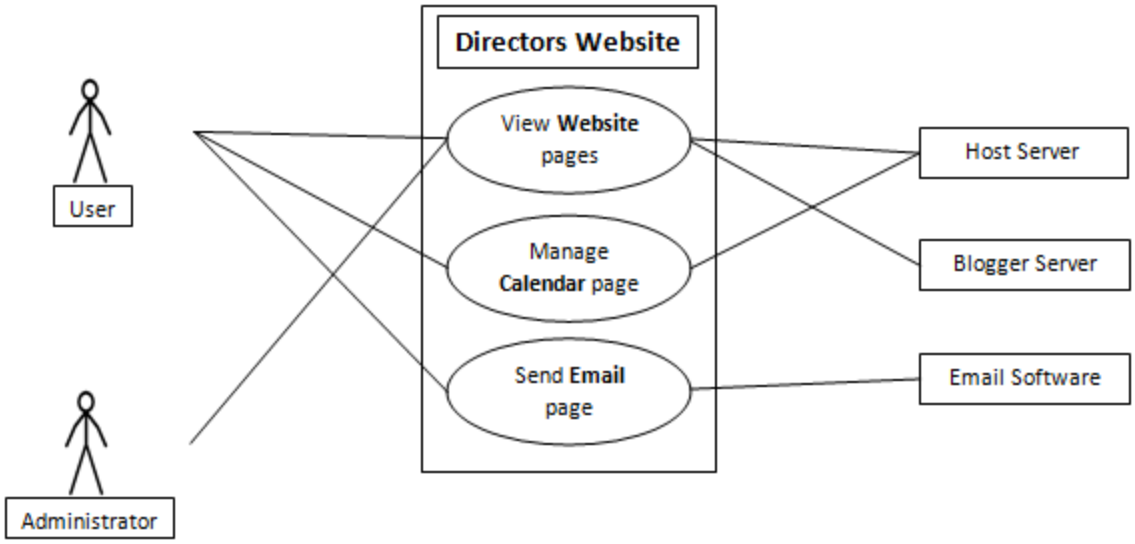
View Website pages
Manage Calendar page
Send Email page
User
Administrator
Host Server
Blogger Server
Email Software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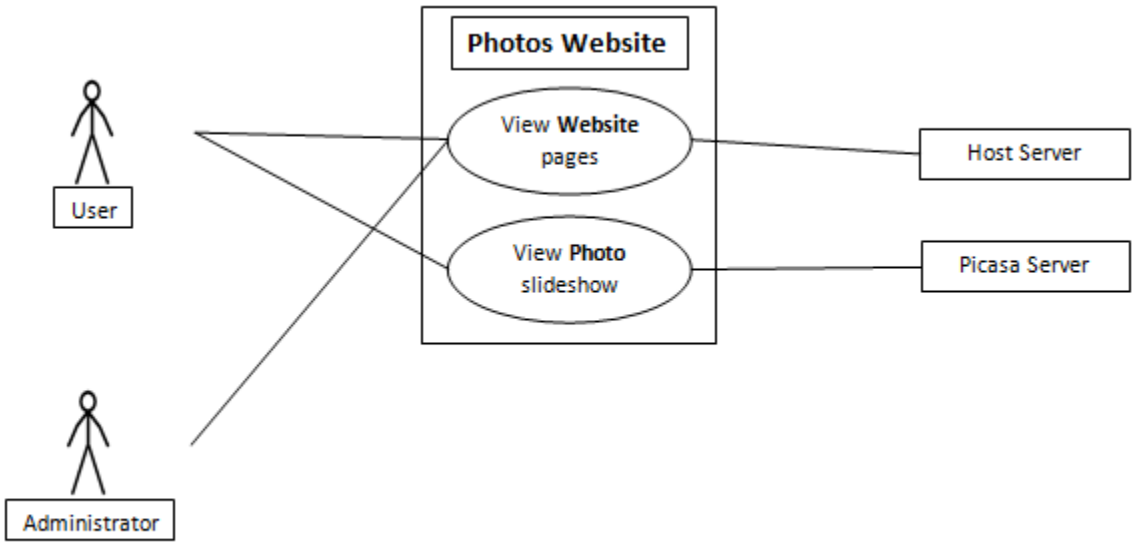
View Website pages
Manage Calendar page
Send Email page
User
Administrator
Host Server
Blogger Server
Email Software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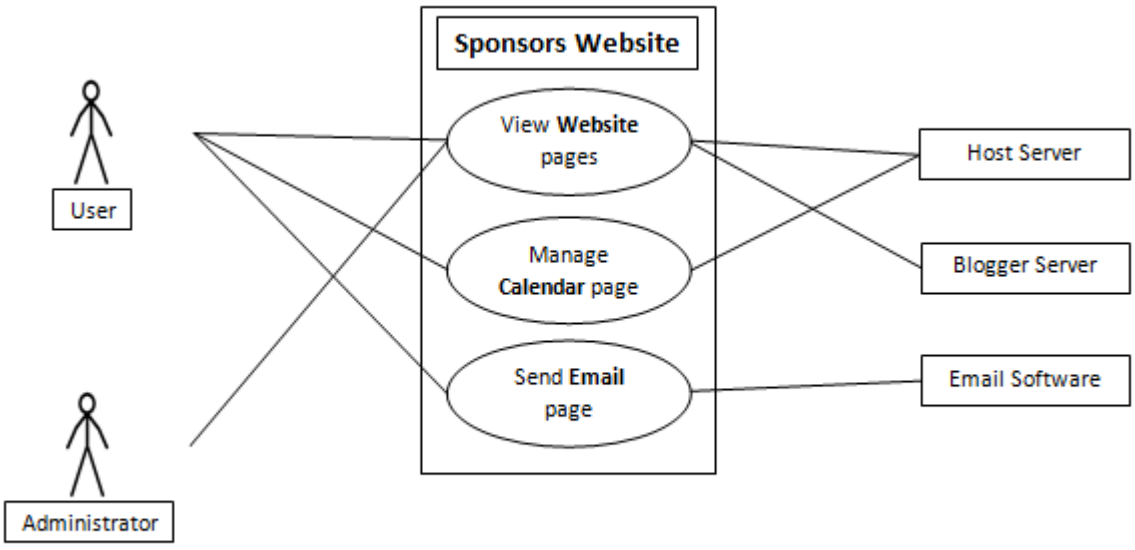
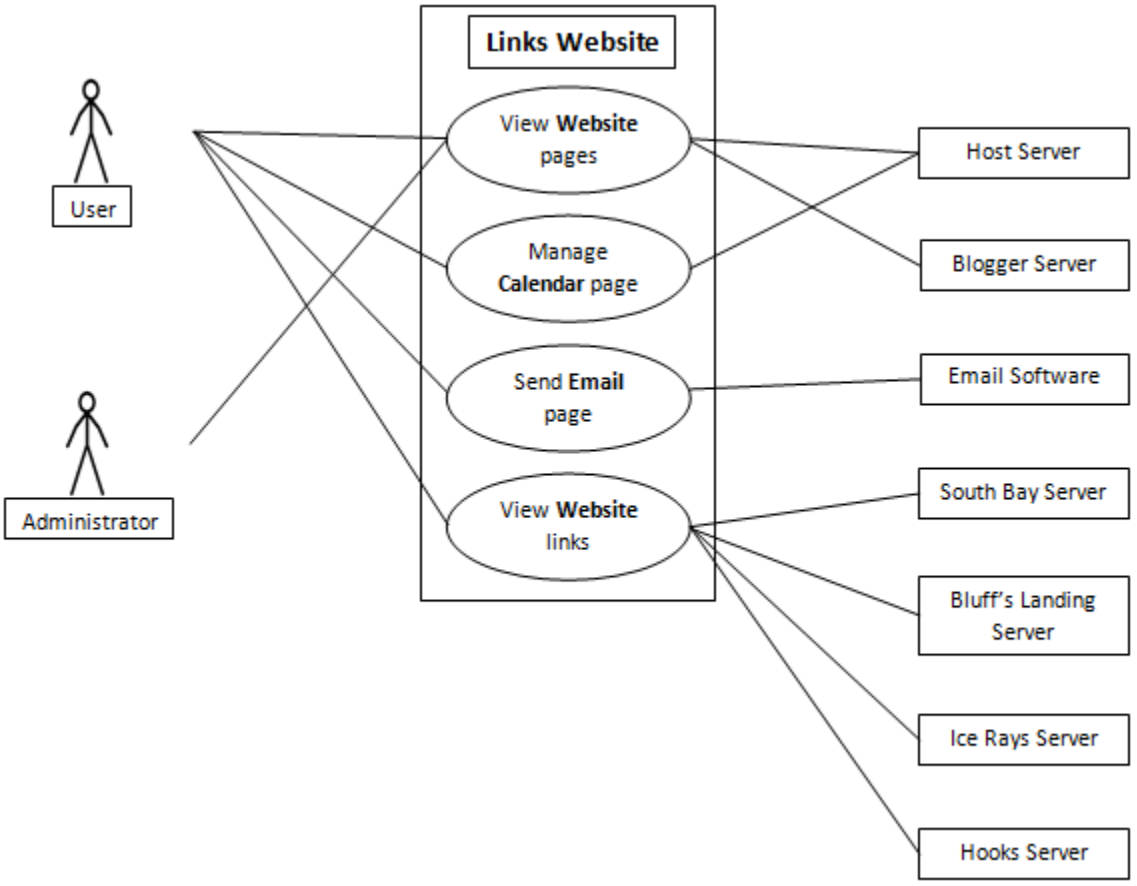
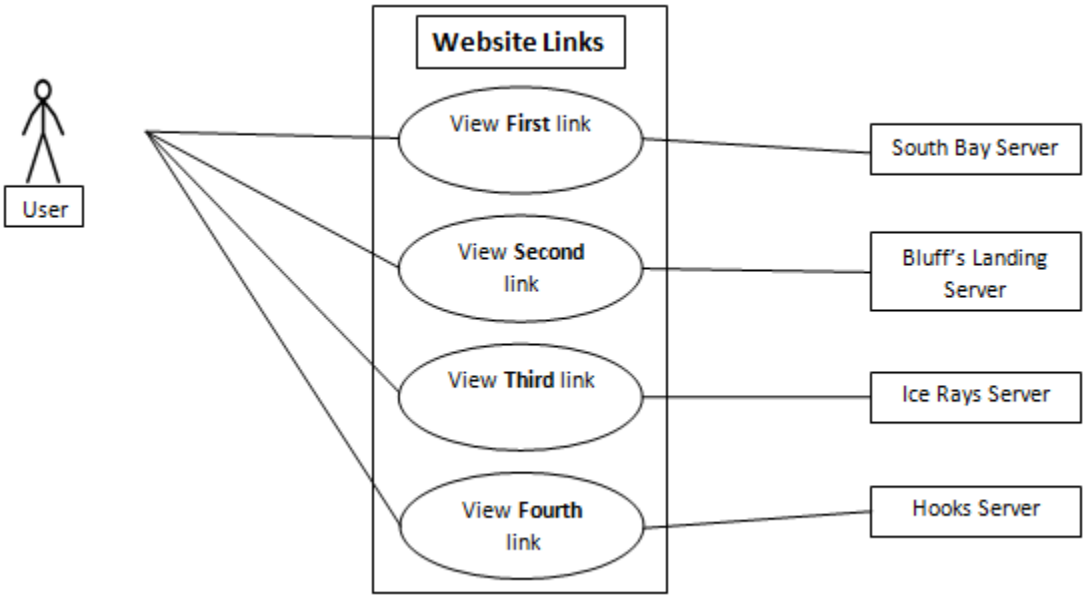
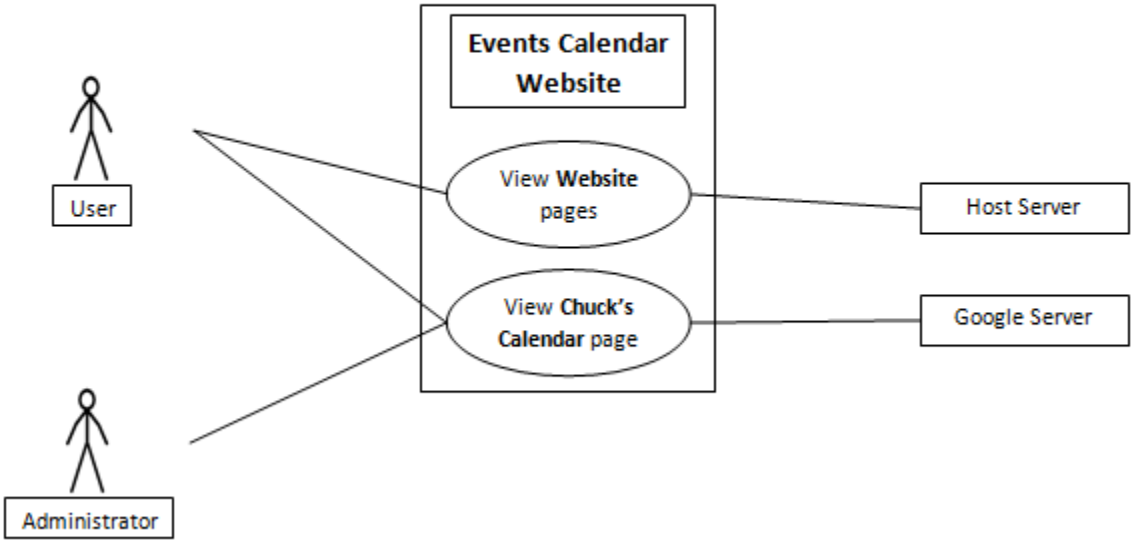
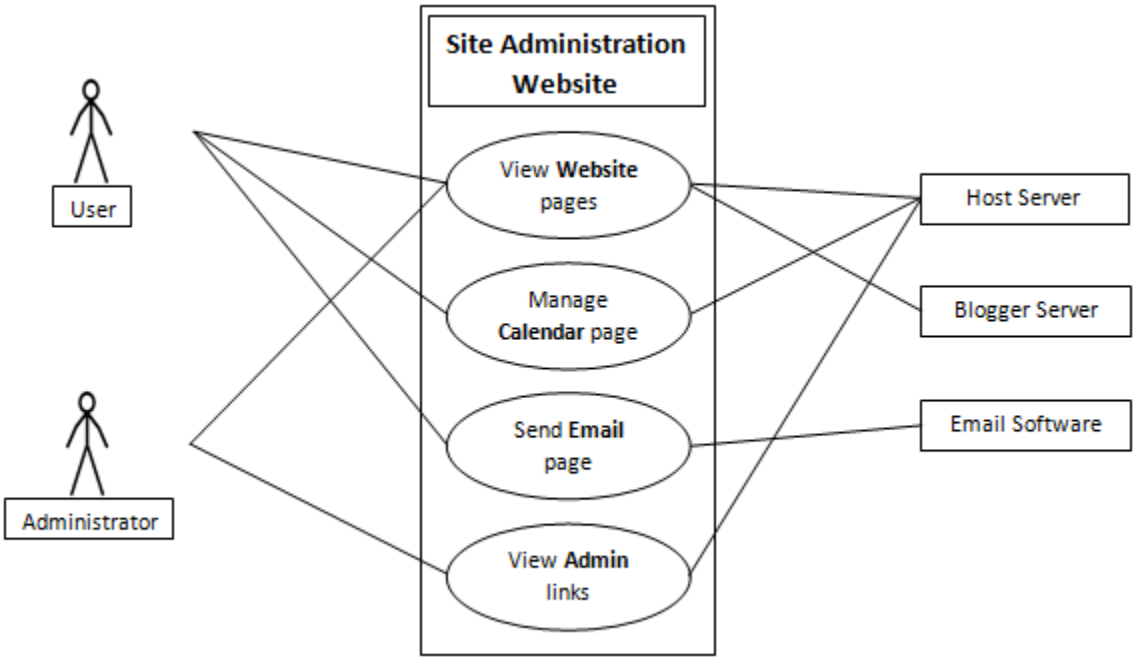
User
Administrator
Host Server
Picasa Server

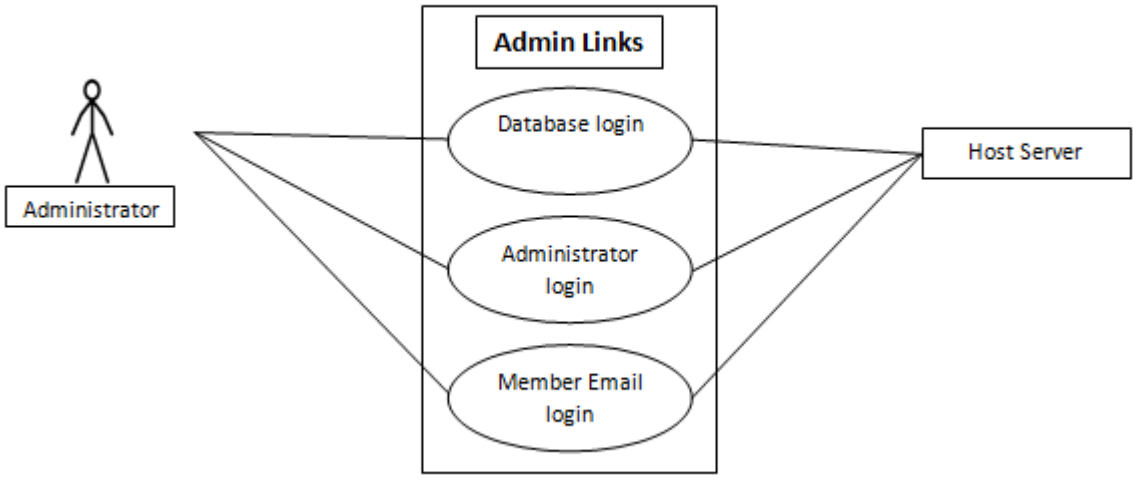

Sponsors Website
View Website pages
Manage Calendar page
Send Email page
User
Administrator
Host Server
Blogger Server
Email Software

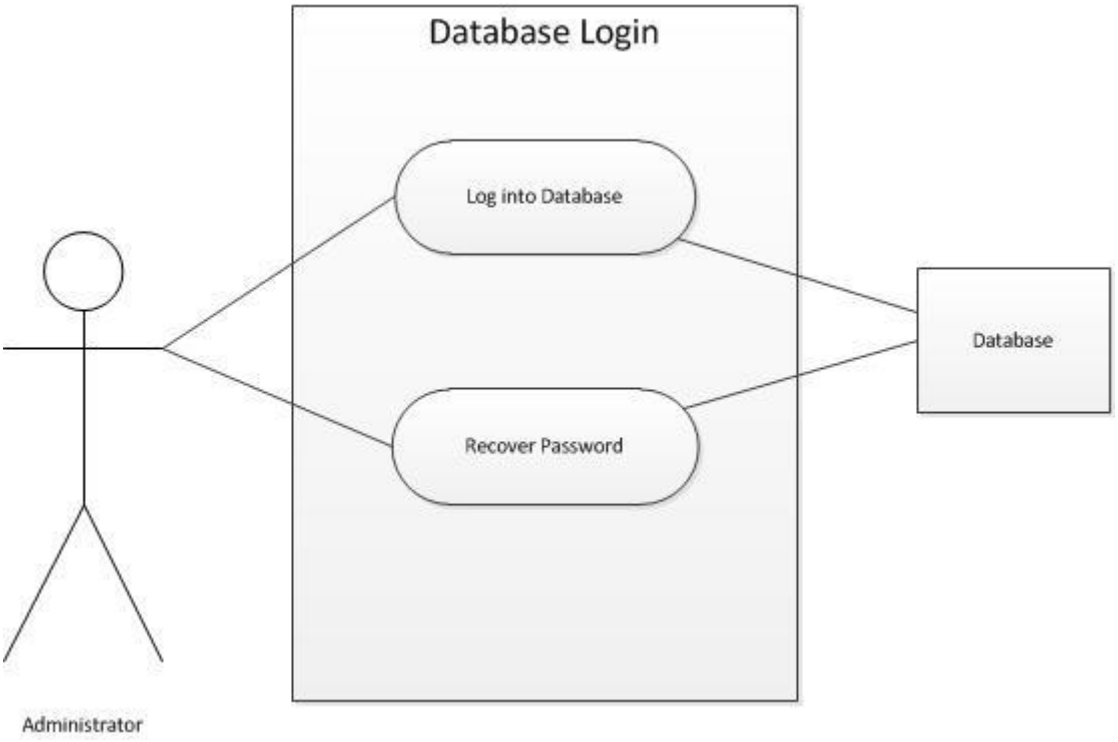

Links Website
User
Administrator
View Website pages
Manage Calendar page
Send Email page
View Website links
Host Server
Blogger Server
Email Software
South Bay Server
Bluff's Landing Server
Ice Rays Server
Hooks Server

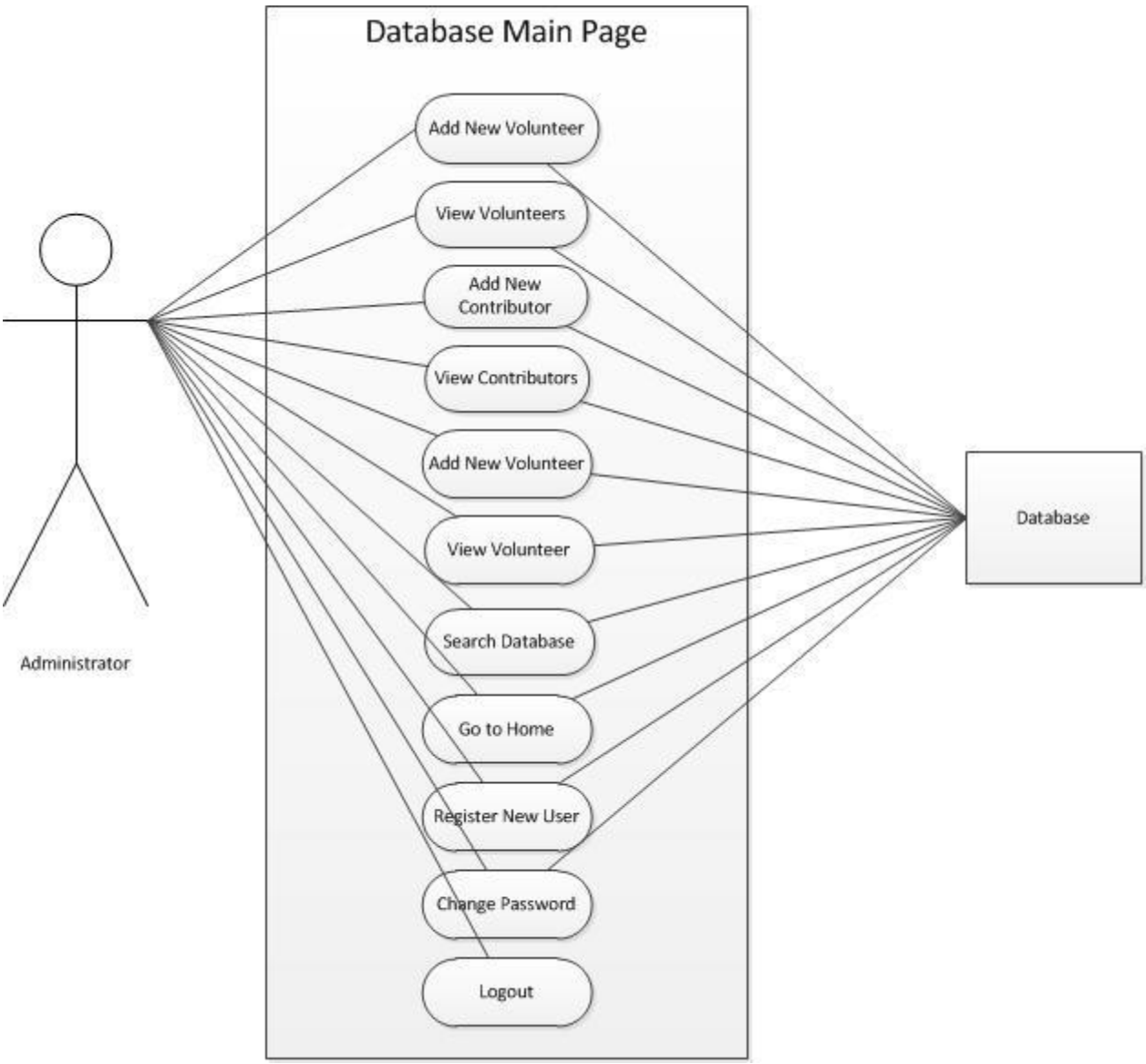

Website Links
User
View First link
View Second link
View Third link
View Fourth link
South Bay Server
Bluff's Landing Server
Ice Rays Server
Hooks Server

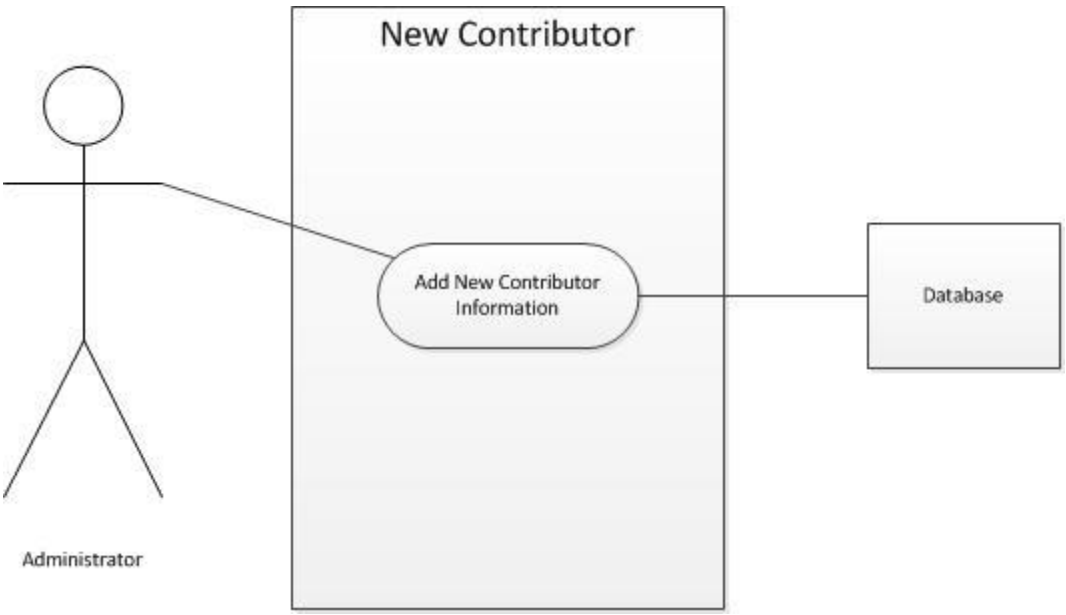

Events Calendar Website
User
Administrator
View Website pages
View Chuck's Calendar page
Host Server
Google Server

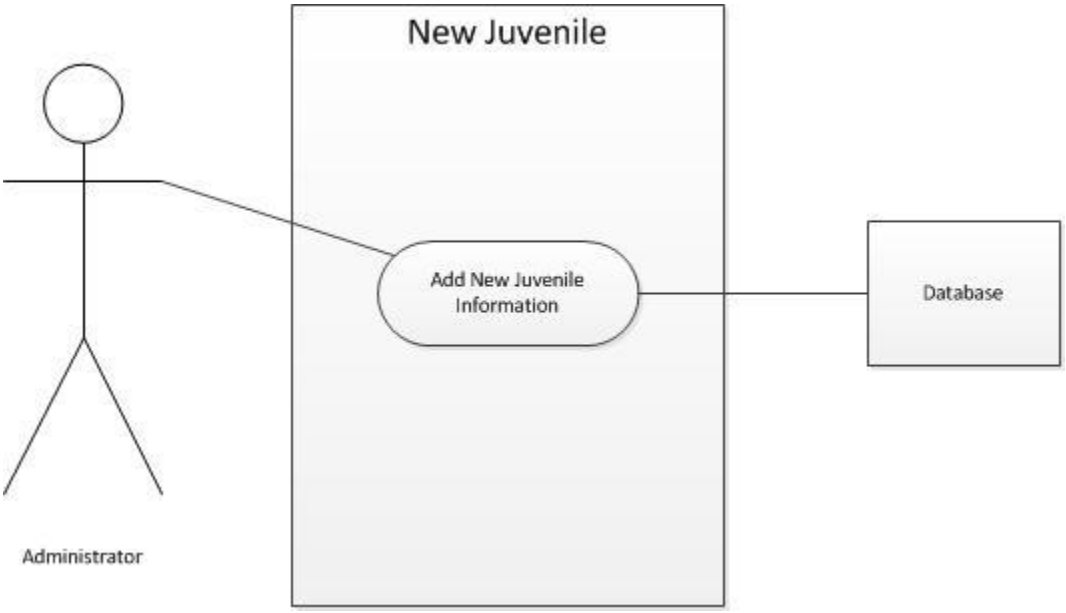

Site Administration Website
User
Administrator
View Website pages
Manage Calendar page
Send Email page
View Admin links
Host Server
Blogger Server
Email Software

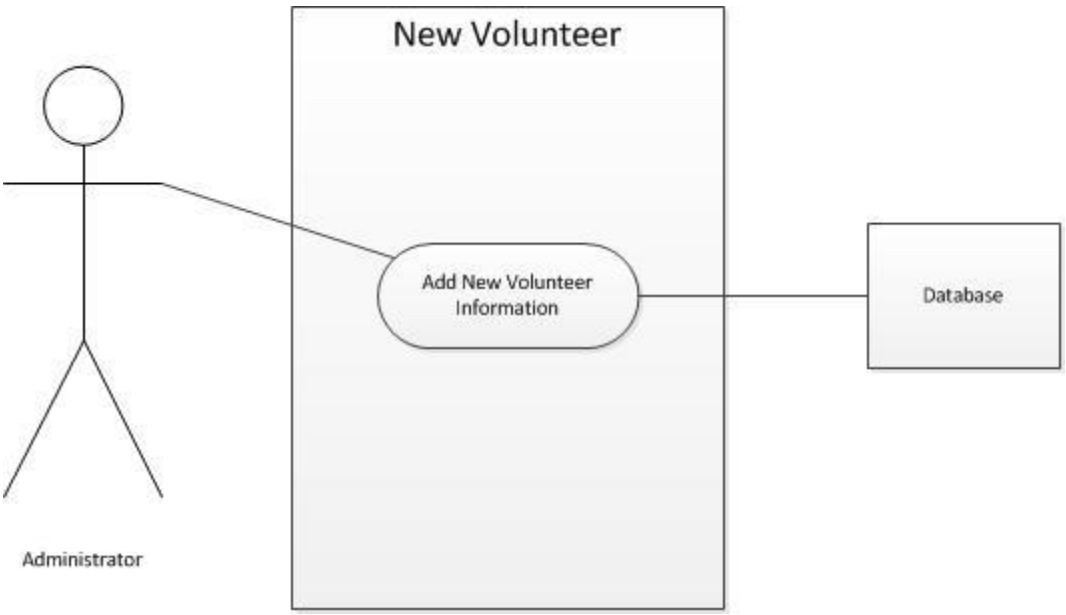

Admin Links
Database login
Administrator login
Member Email login
Administrator
Host Server

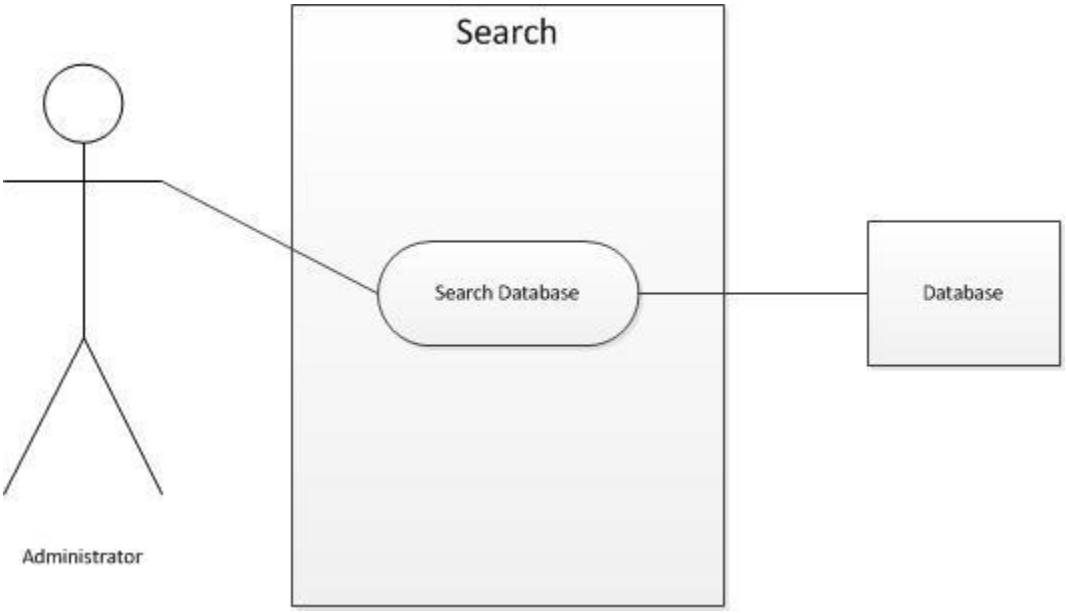

Database Login
Log into Database
Recover Password
Database
Administrator

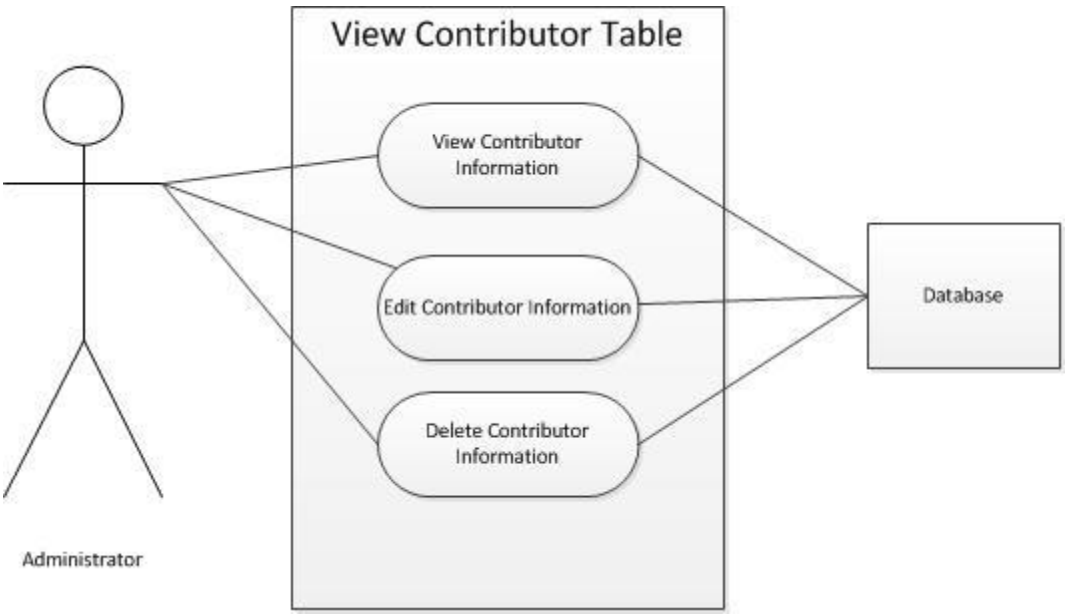

Database Main Page
Add New Volunteer
View Volunteers
Add New Contributor
View Contributors
Add New Volunteer
View Volunteer
Search Database
Go to Home
Register New User
Change Password
Logout
Database
Administrator

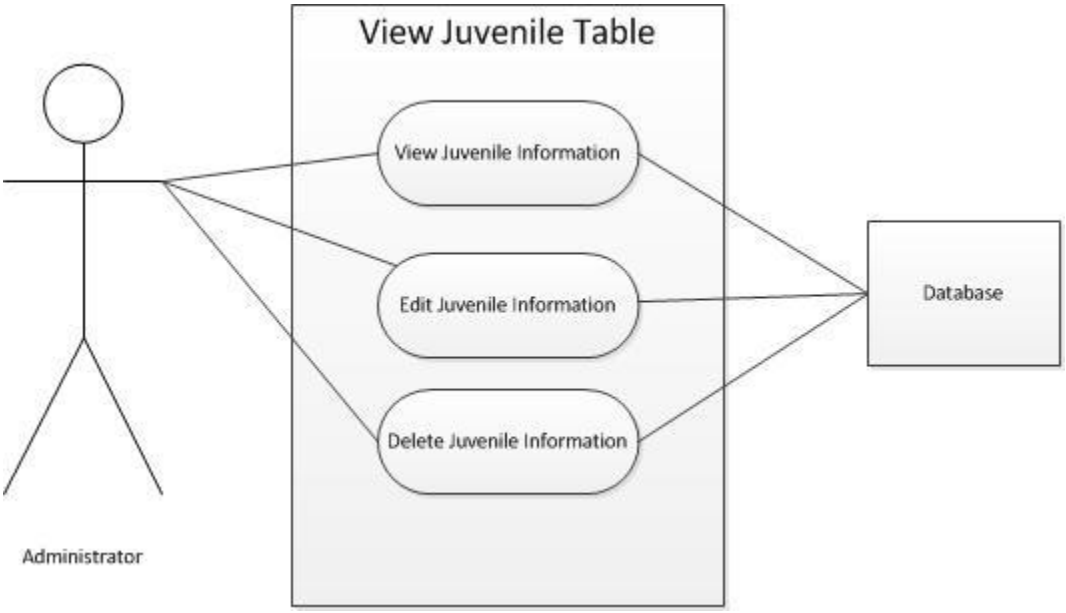

New Contributor
Add New Contributor Information
Database
Administrator

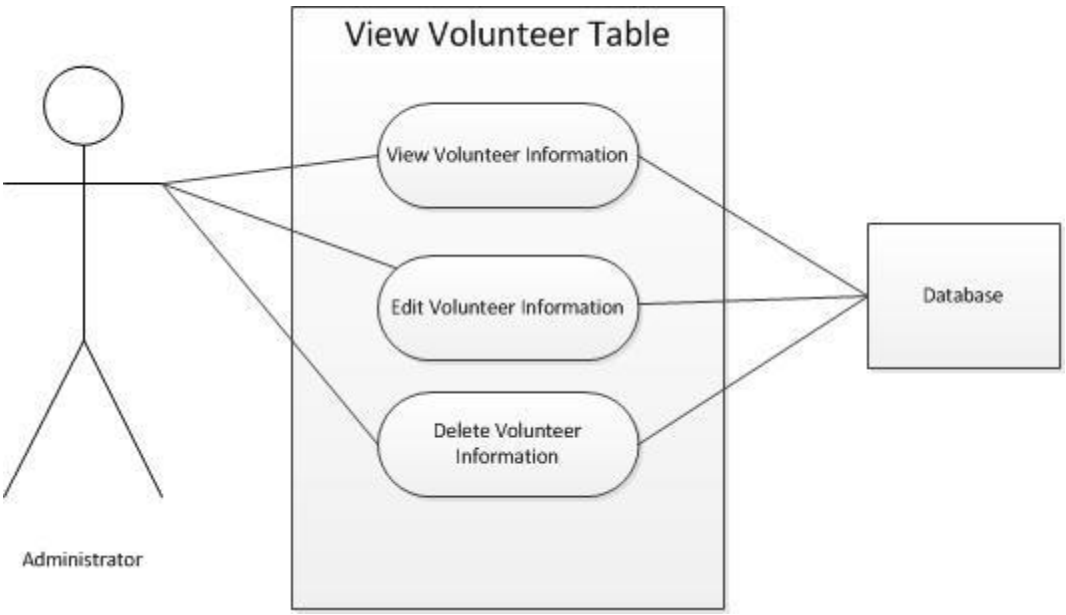

New Juvenile
Add New Juvenile Information
Database
Administrator

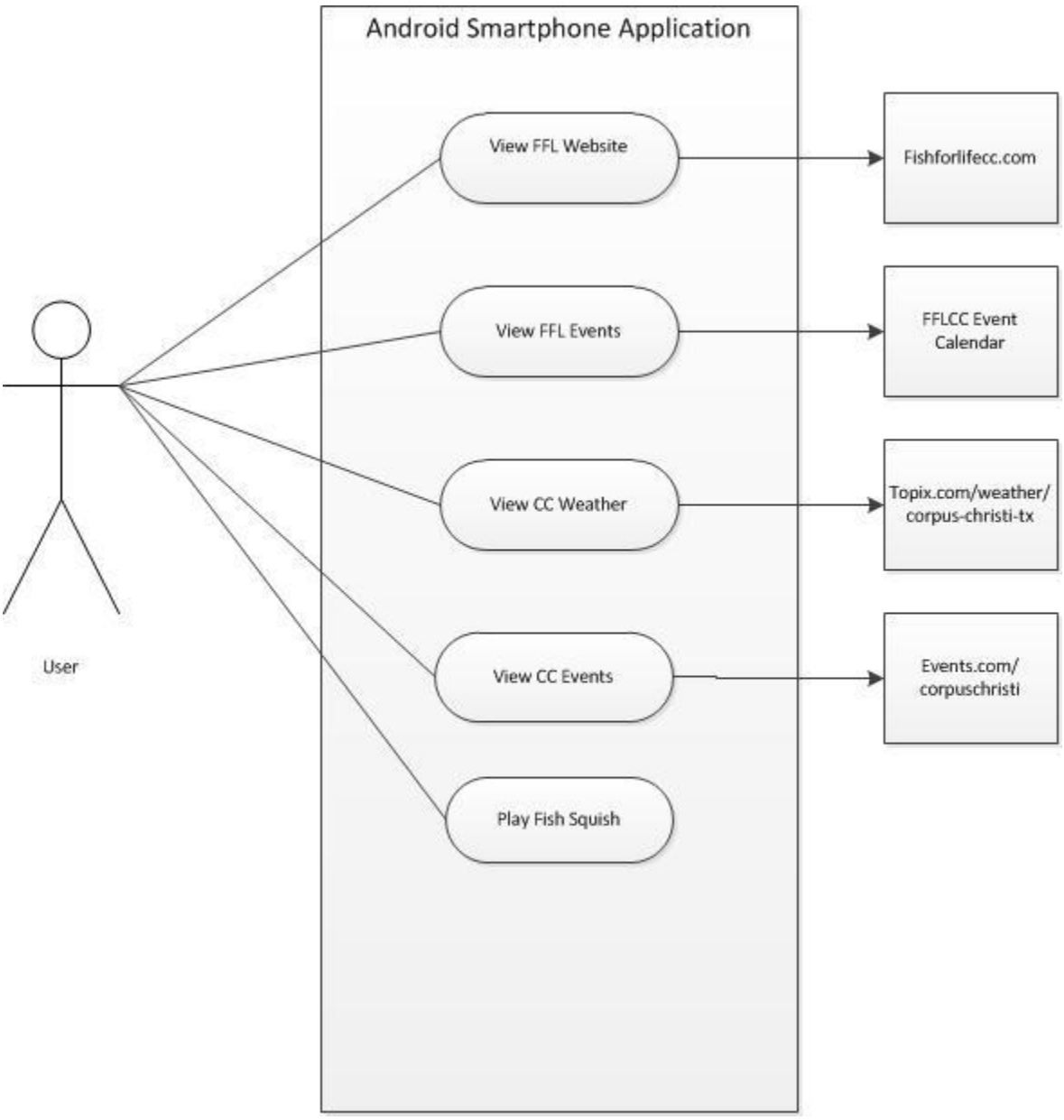

New Volunteer
Add New Volunteer Information
Database
Administrator

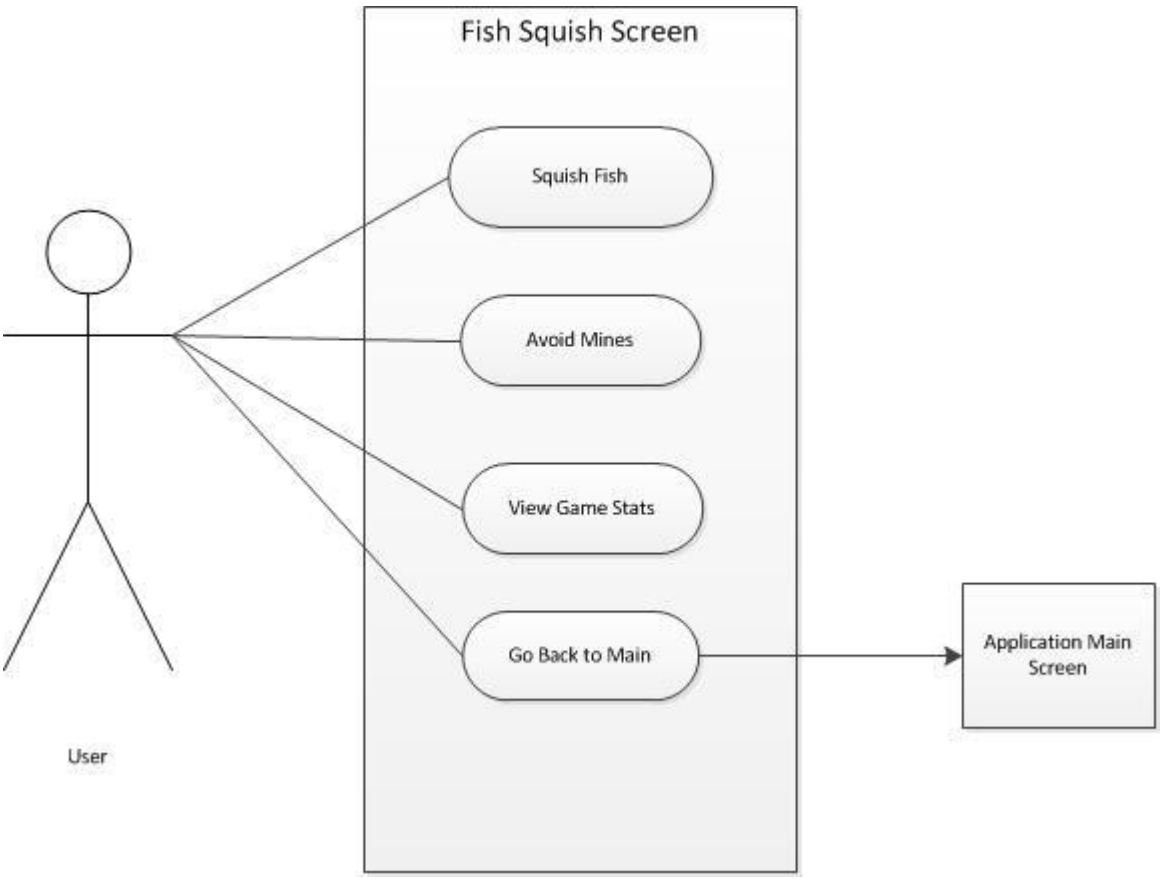

Search
Search Database
Database
Administrator


View Contributor Table
View Contributor Information
Edit Contributor Information
Delete Contributor Information
Database
Administrator


View Juvenile Table
View Juvenile Information
Edit Juvenile Information
Delete Juvenile Information
Database
Administrator

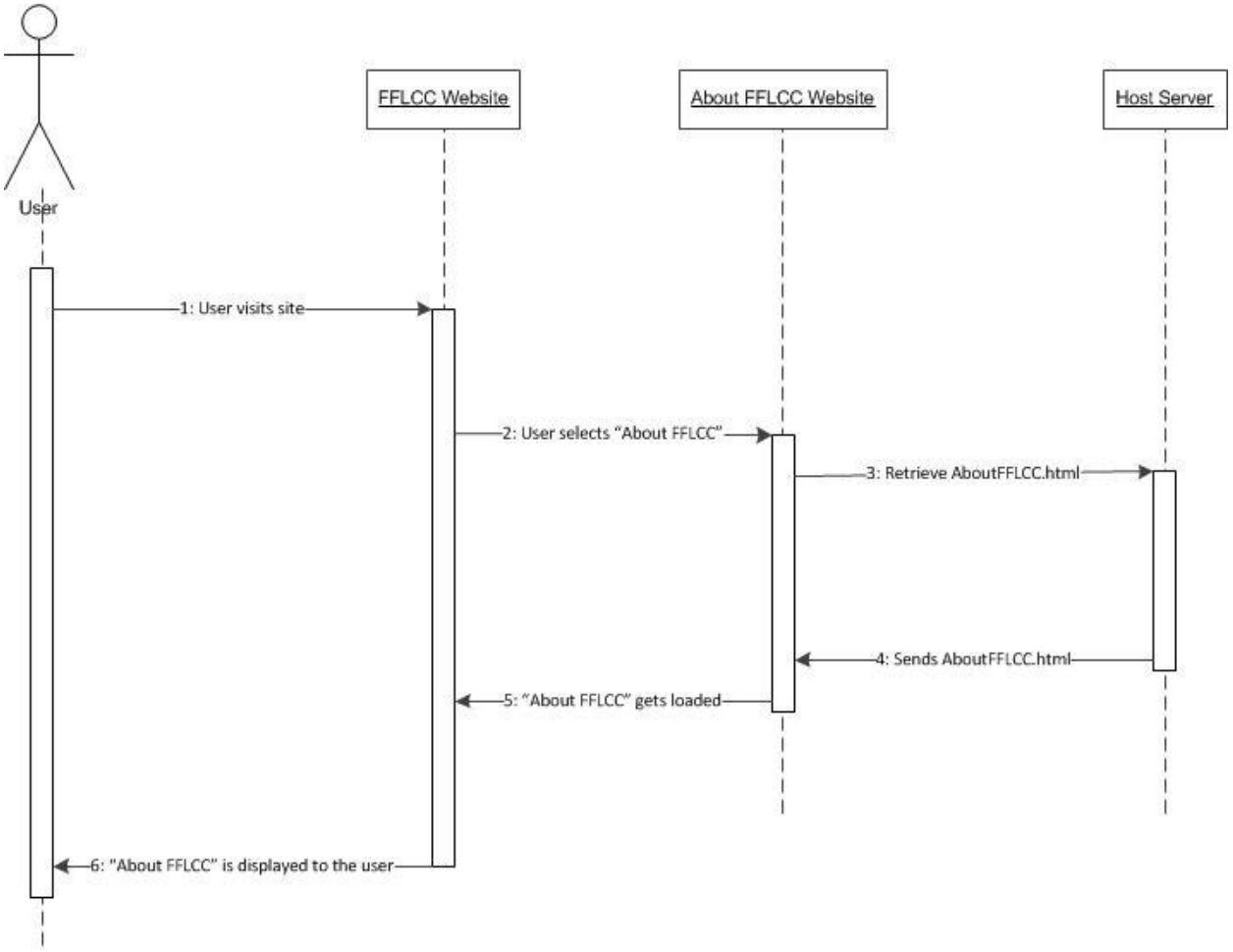

View Volunteer Table
View Volunteer Information
Edit Volunteer Information
Delete Volunteer Information
Database
Administrator


Android Smartphone Application
View FFL Website
View FFL Events
View CC Weather
View CC Events
Play Fish Squish
User
Fishforlifecc.com
FFLCC Event Calendar
Topix.com/weather/ corpus-christi-tx
Events.com/ corpuschristi

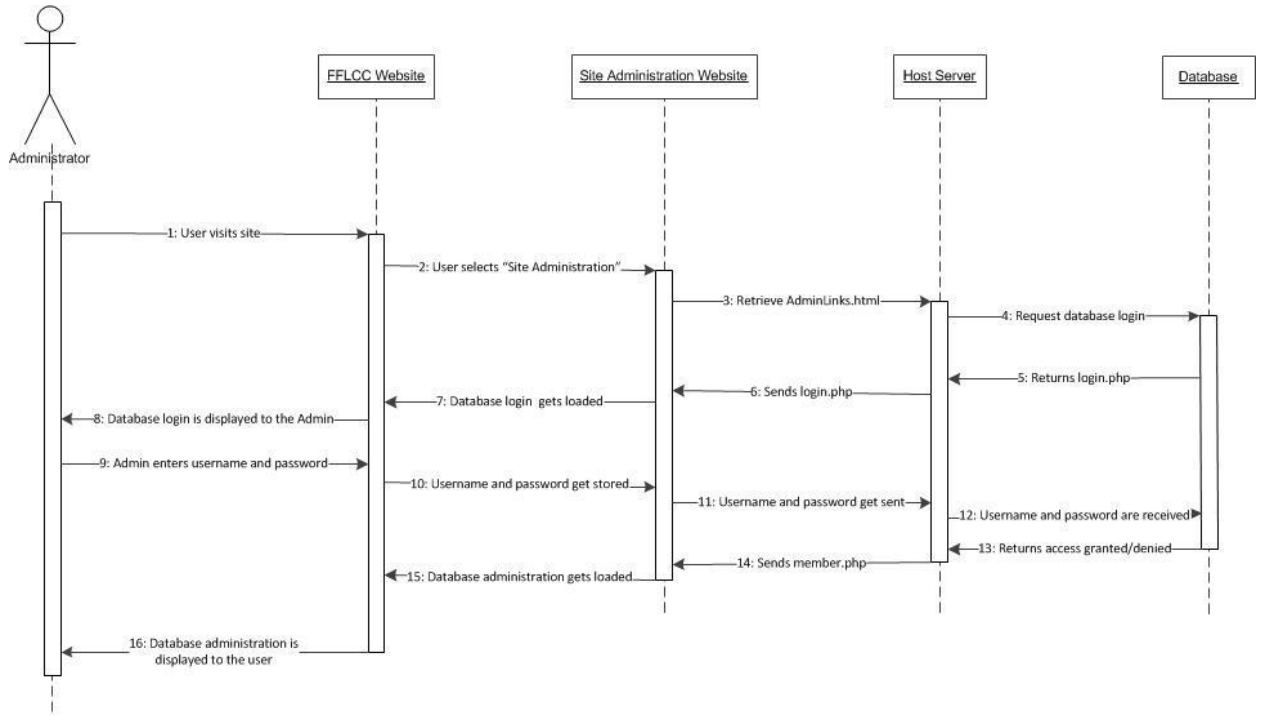


3) Sequence Diagrams

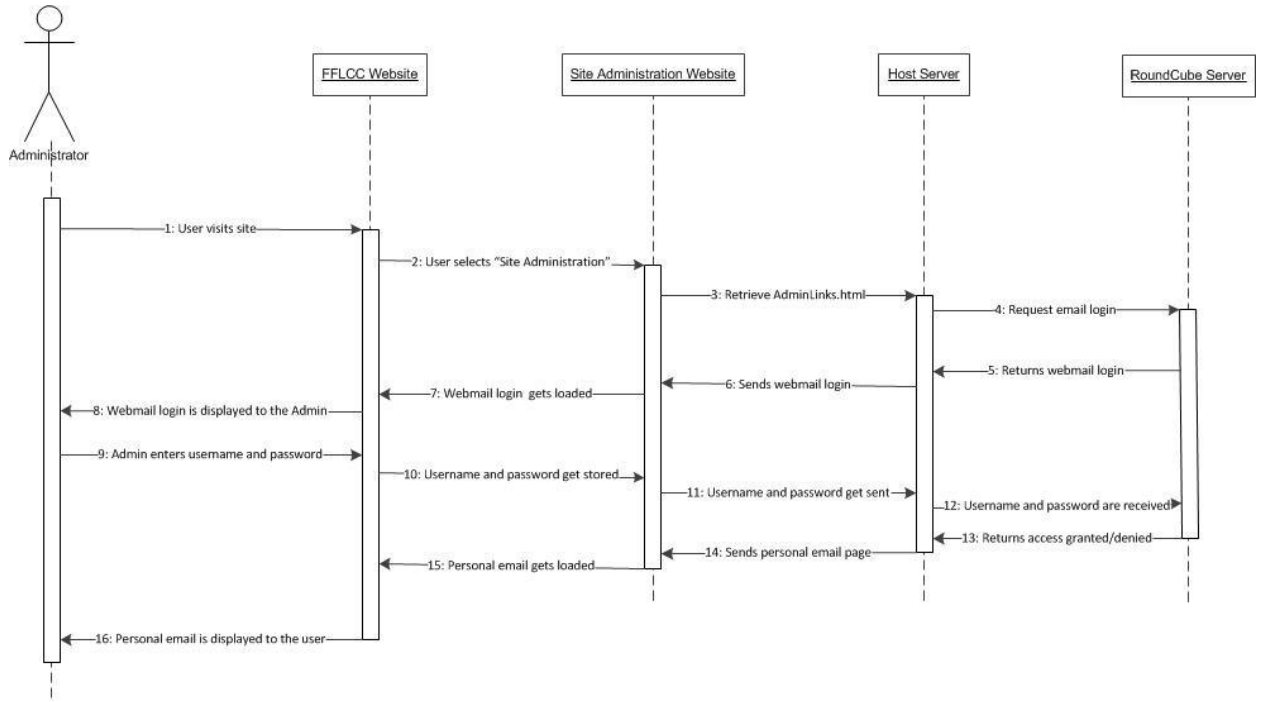
About FFLCC Webpage



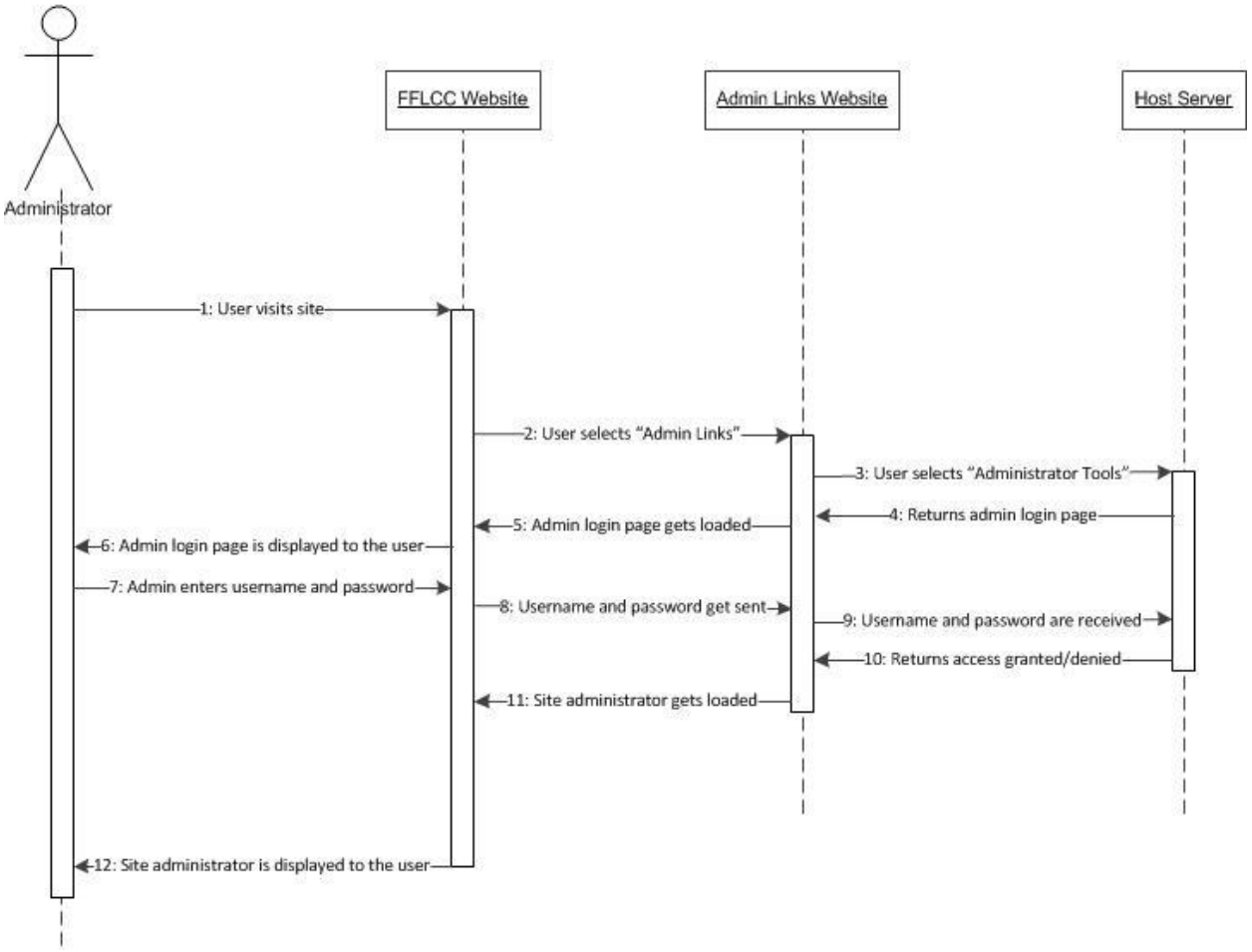
Database Webpage



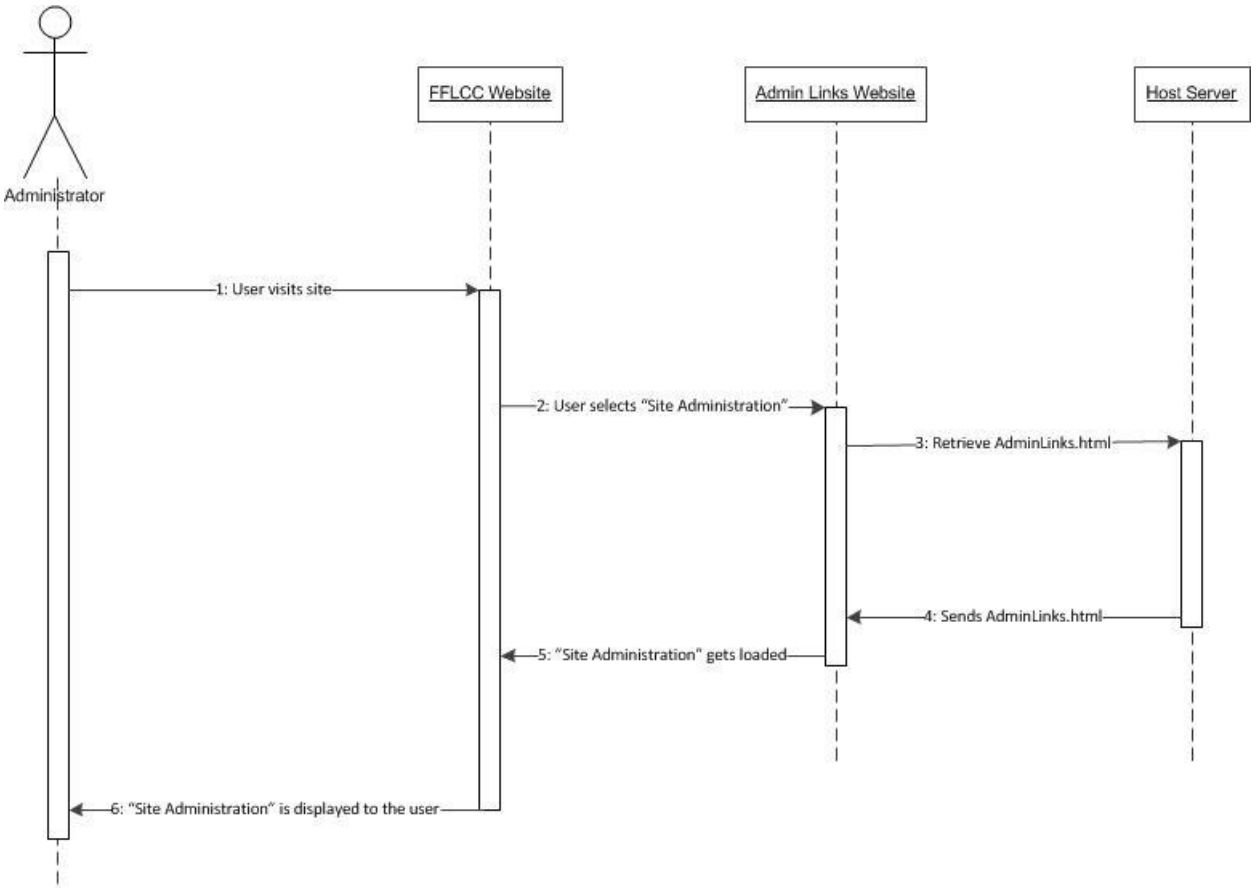
Email Webpage



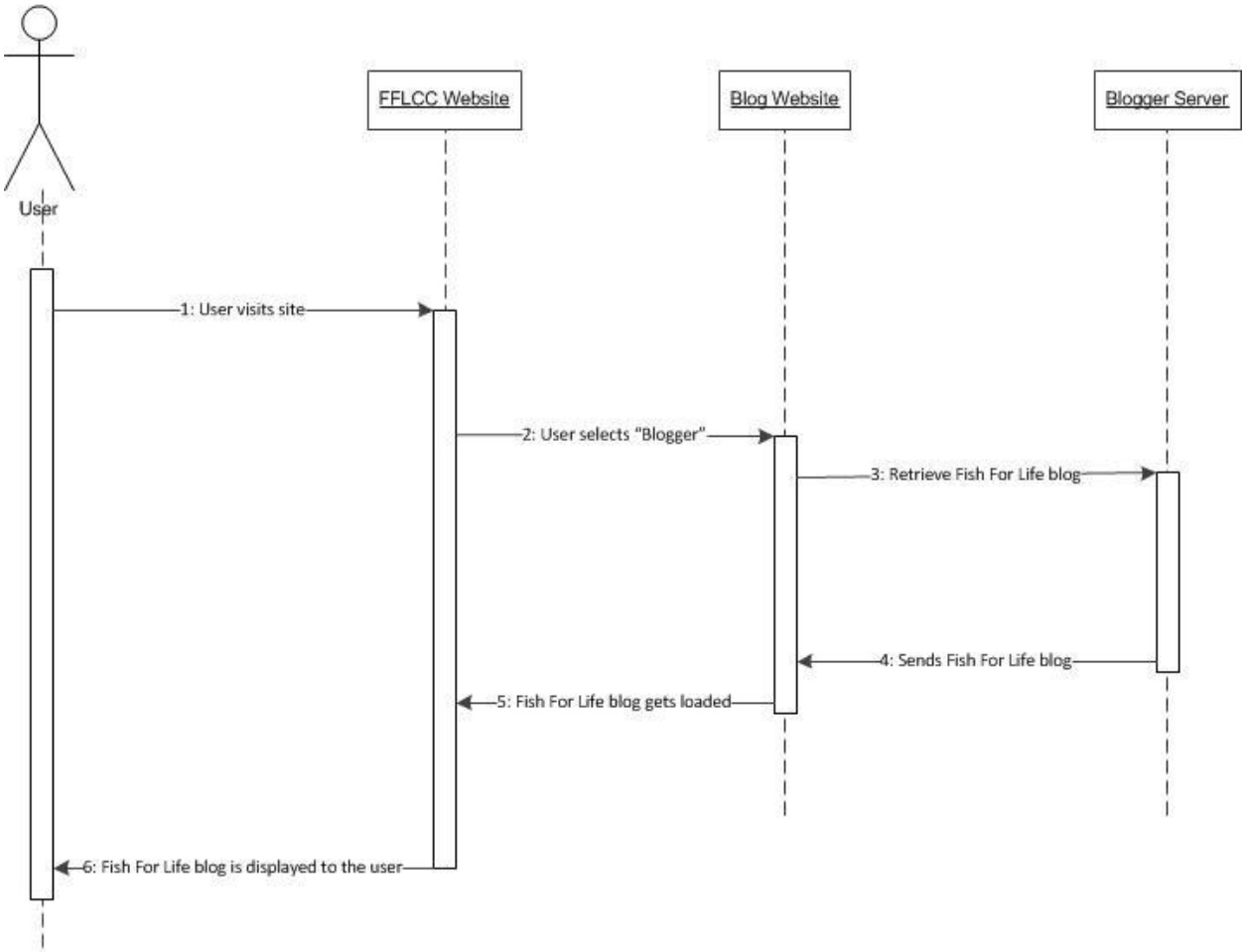
Administration Webpage



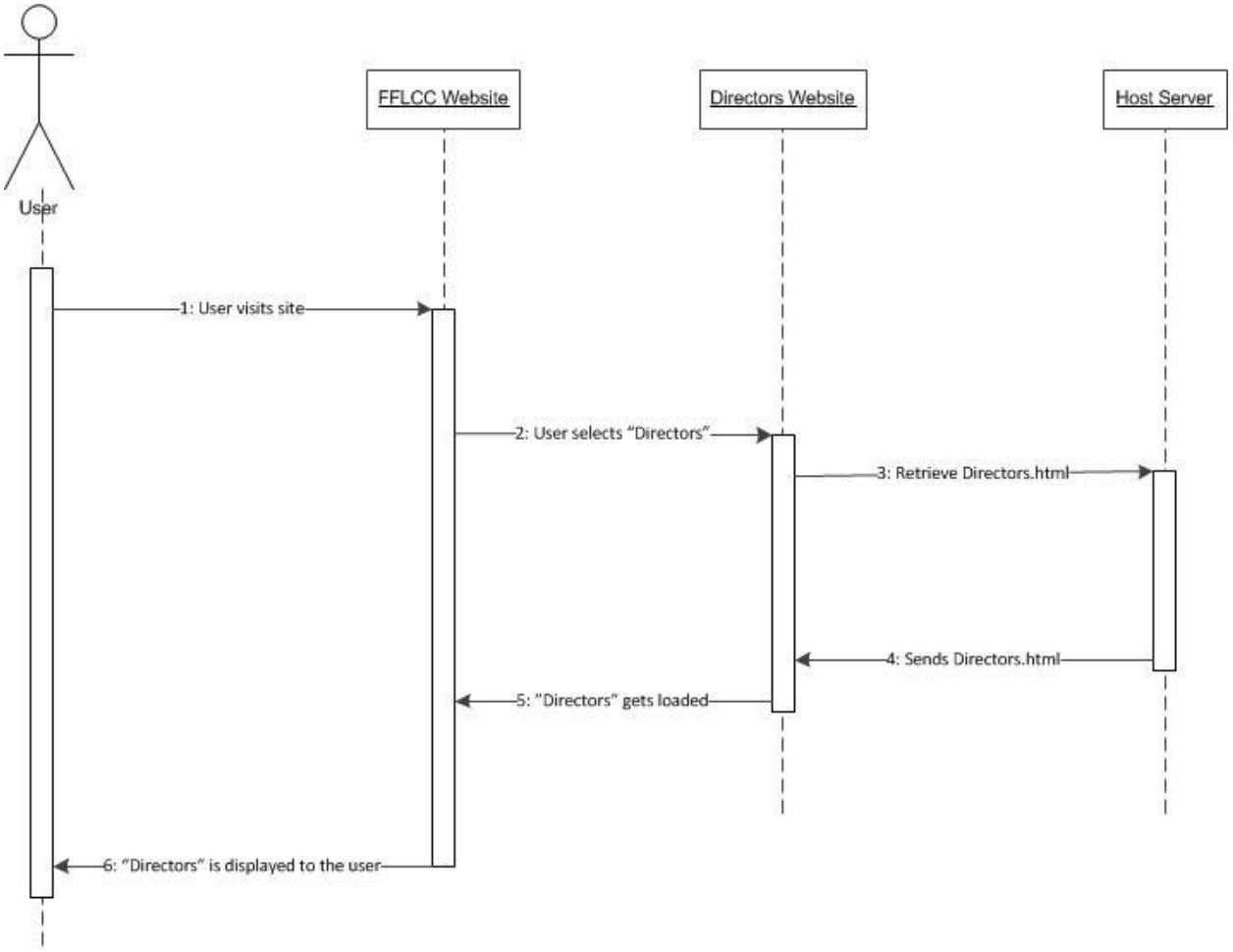
Admin Links Webpage



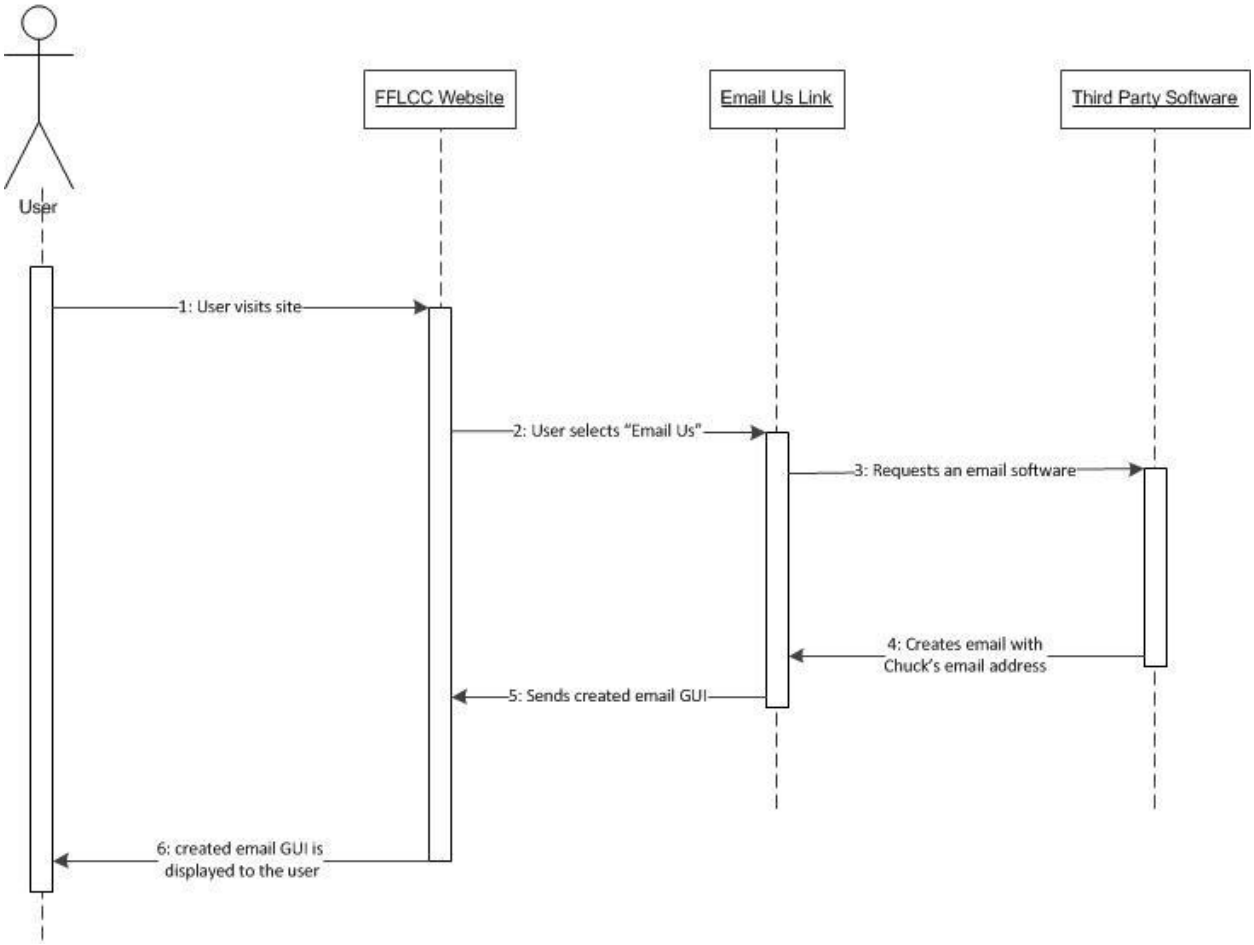
Blog Webpage



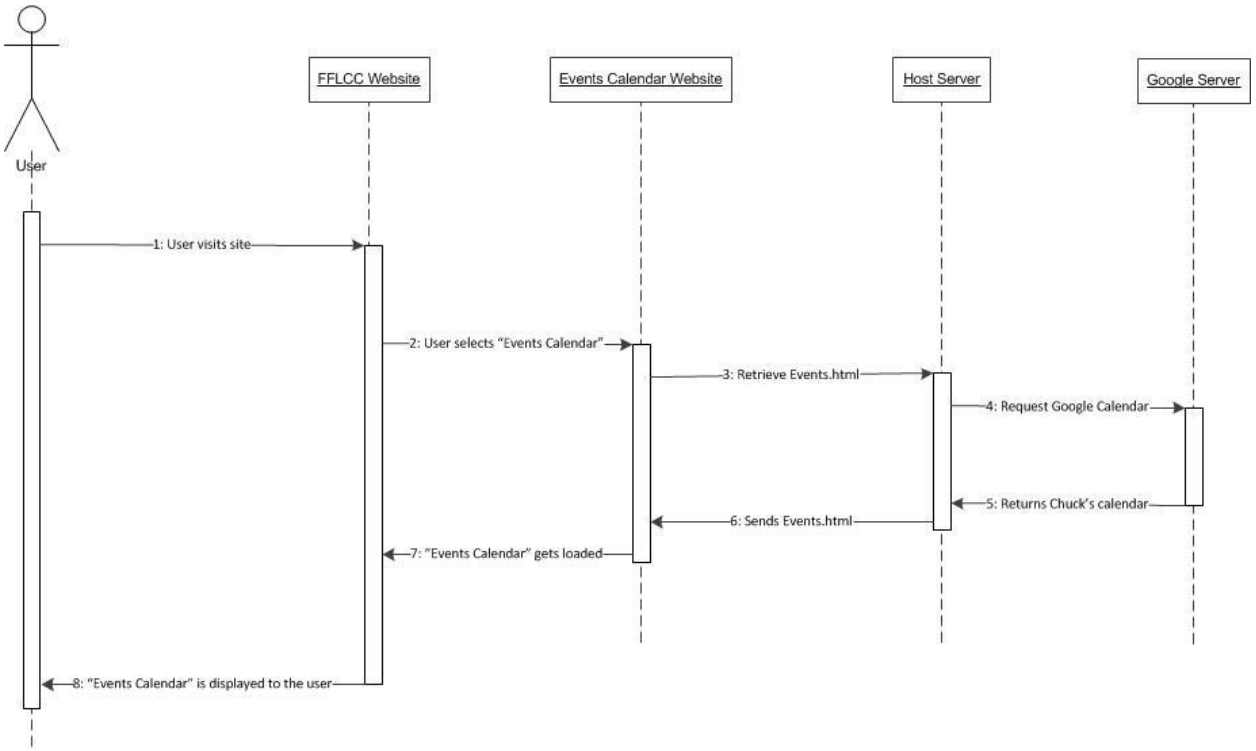
Directors Webpage



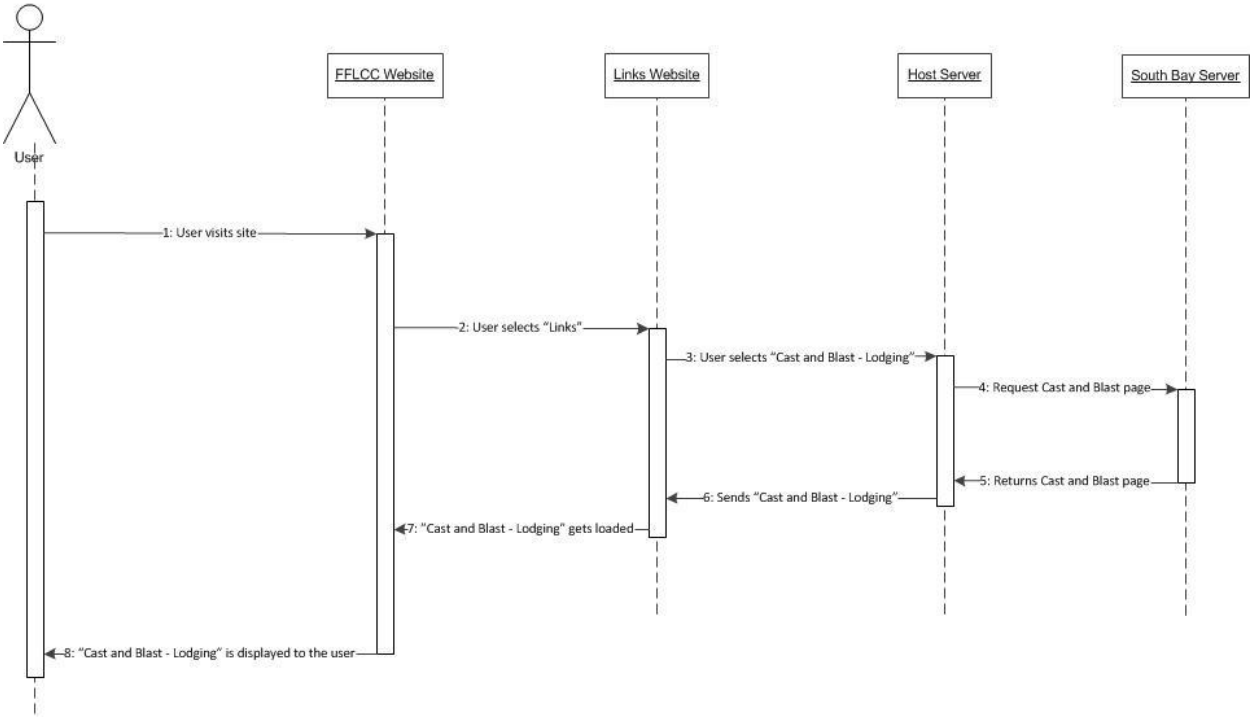
Email Us Link



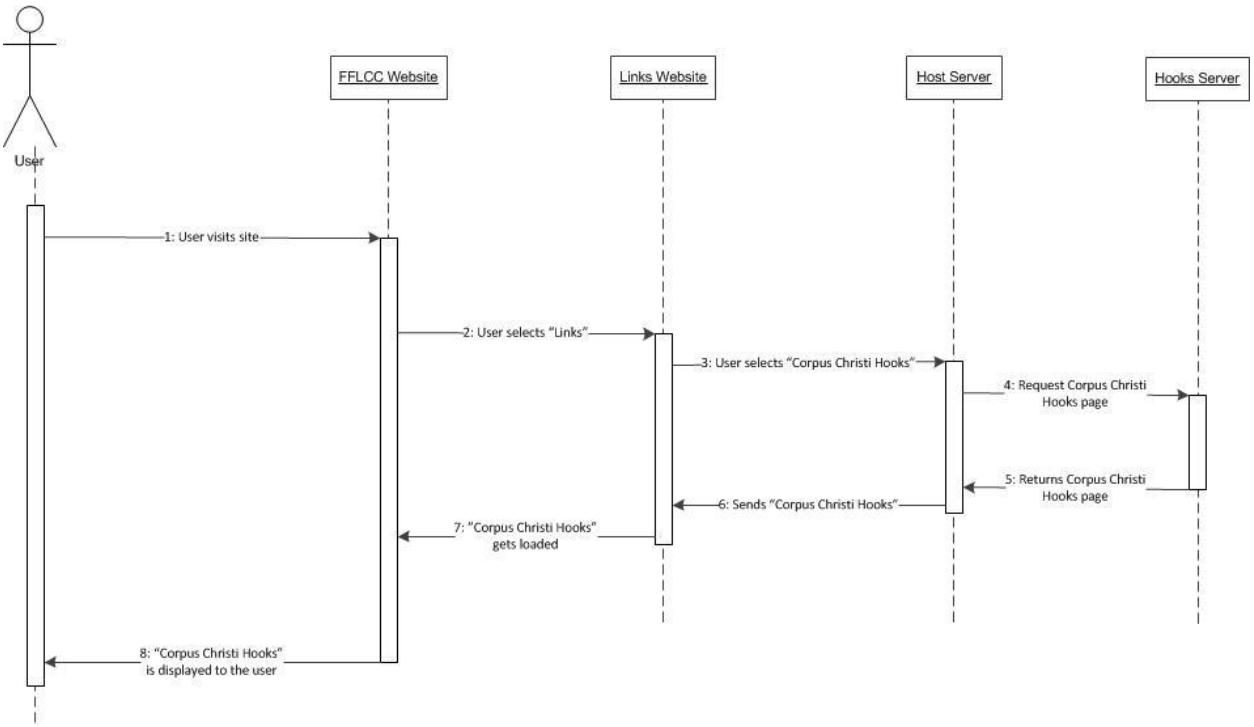
Events Calendar Webpage



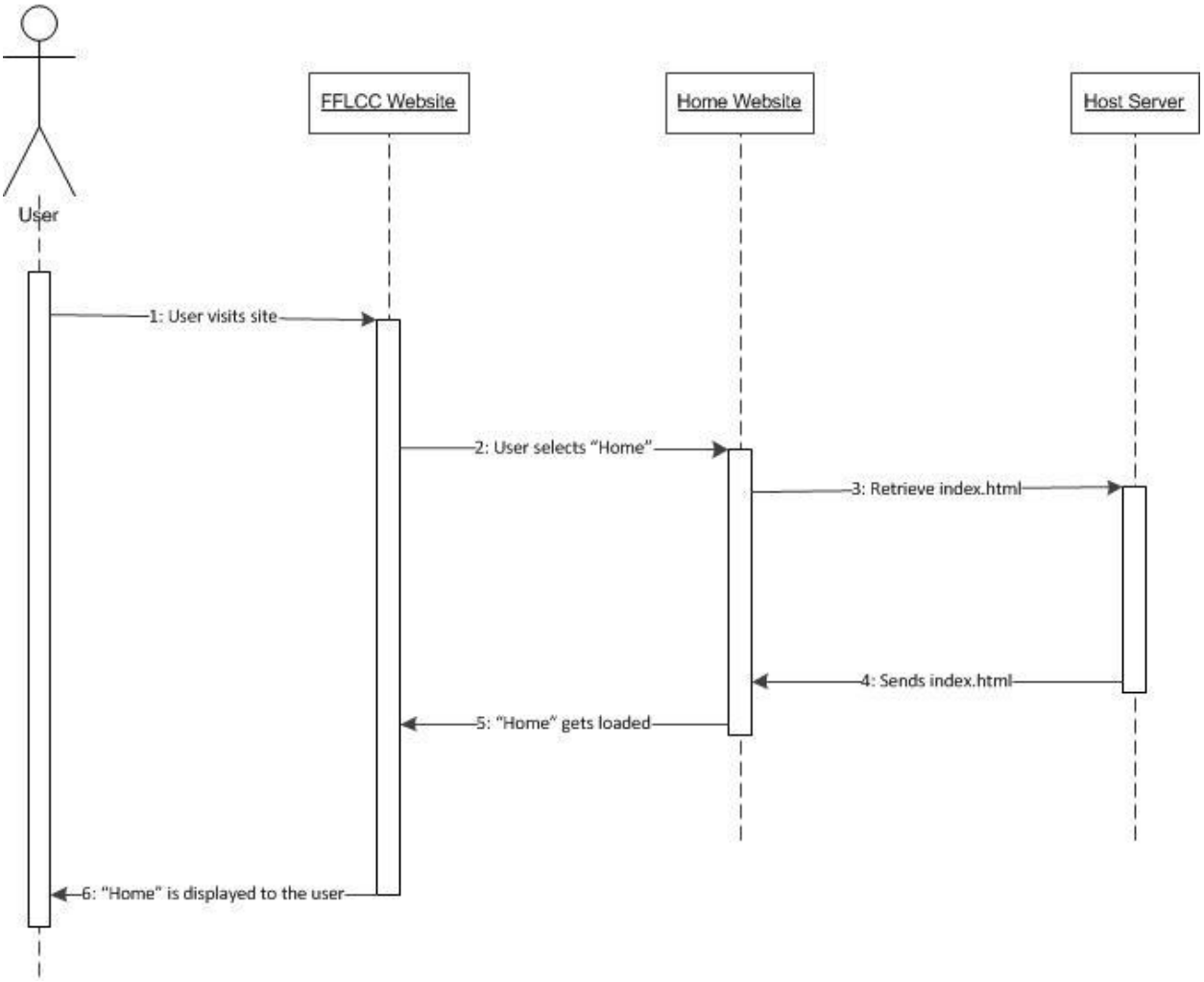
Cast and Blast – Lodging Webpage



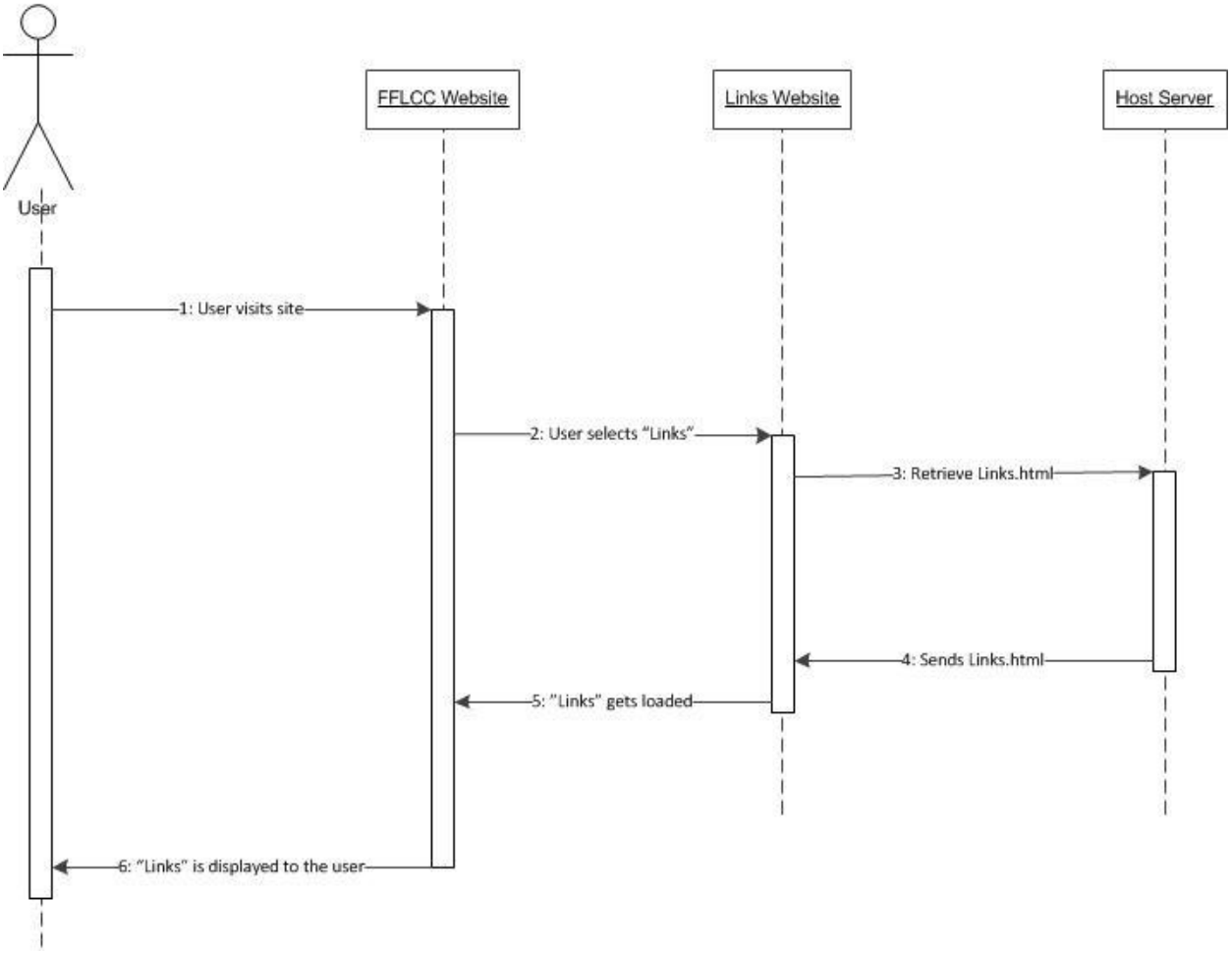
Corpus Christi Hooks Webpage



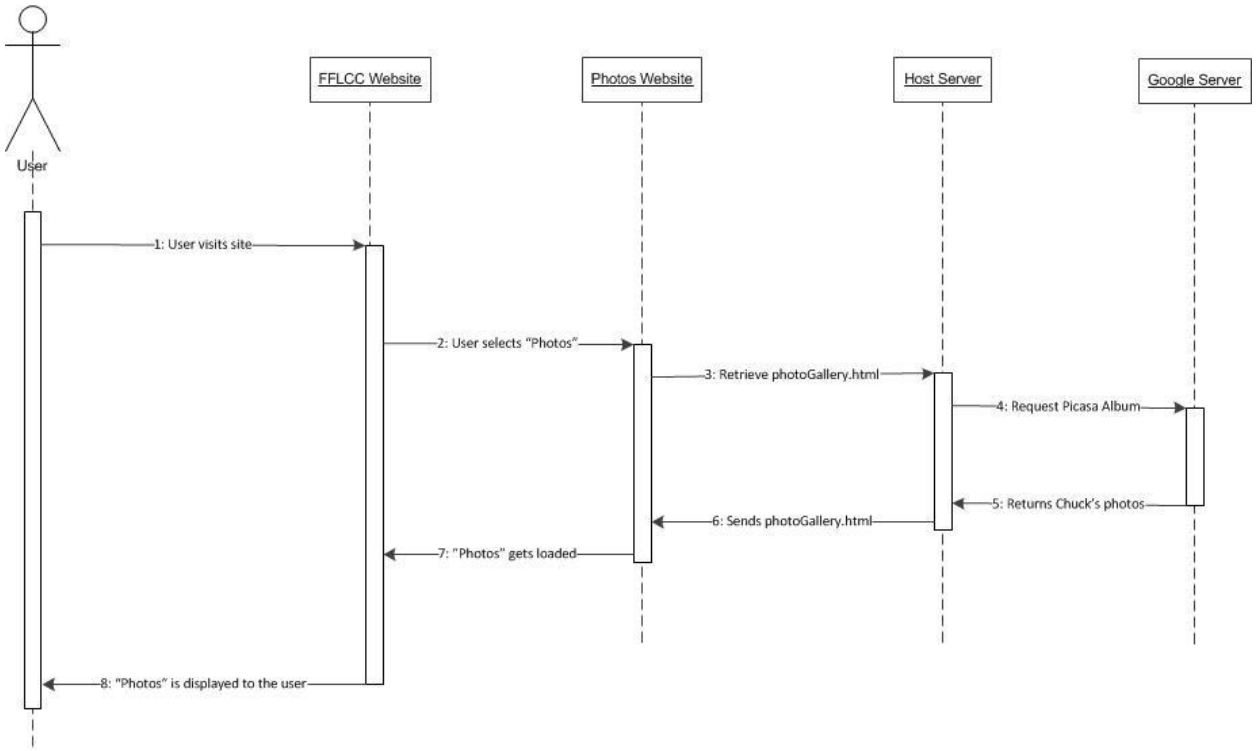
Home Webpage



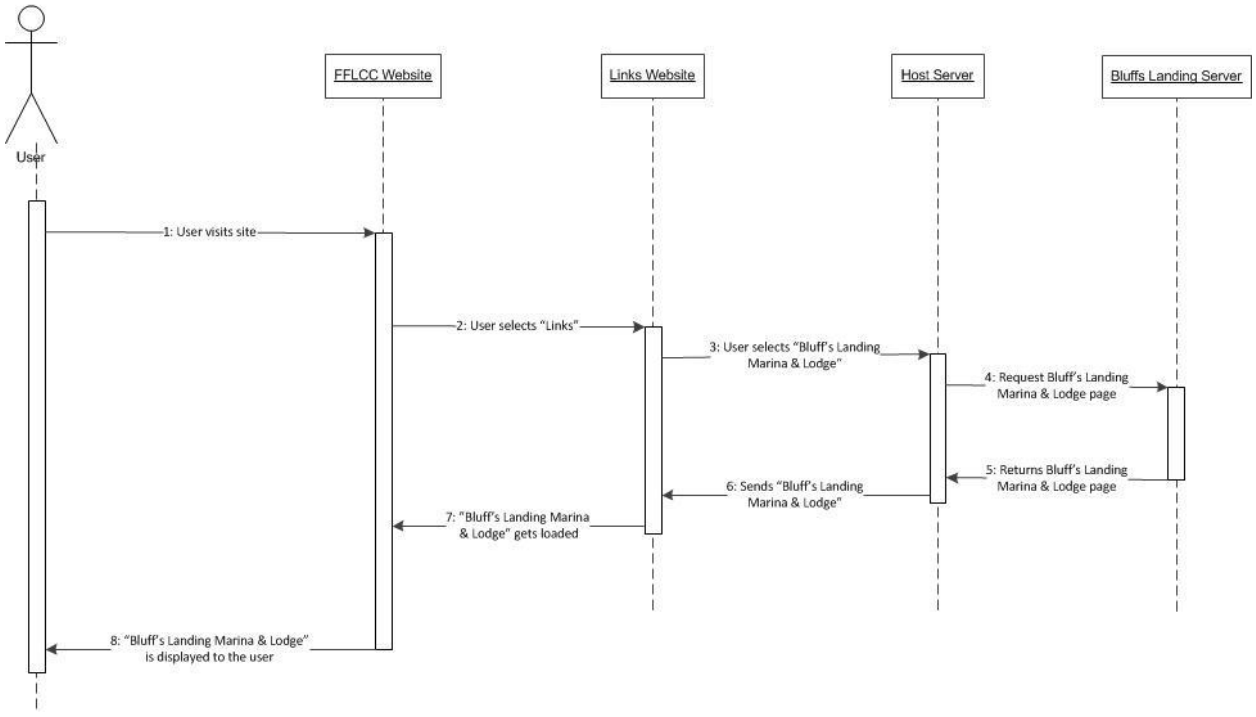
Links Webpage



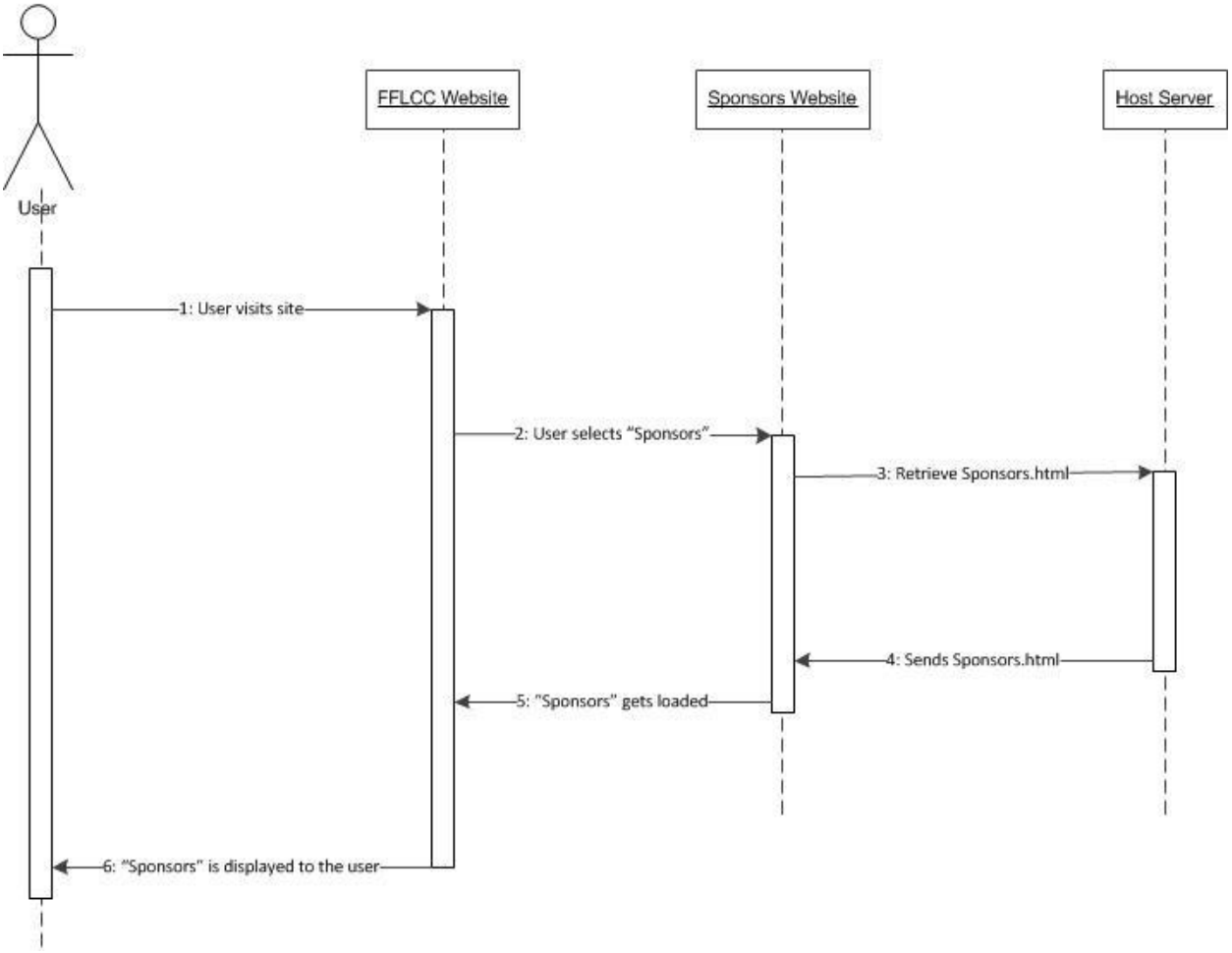
Photos Webpage



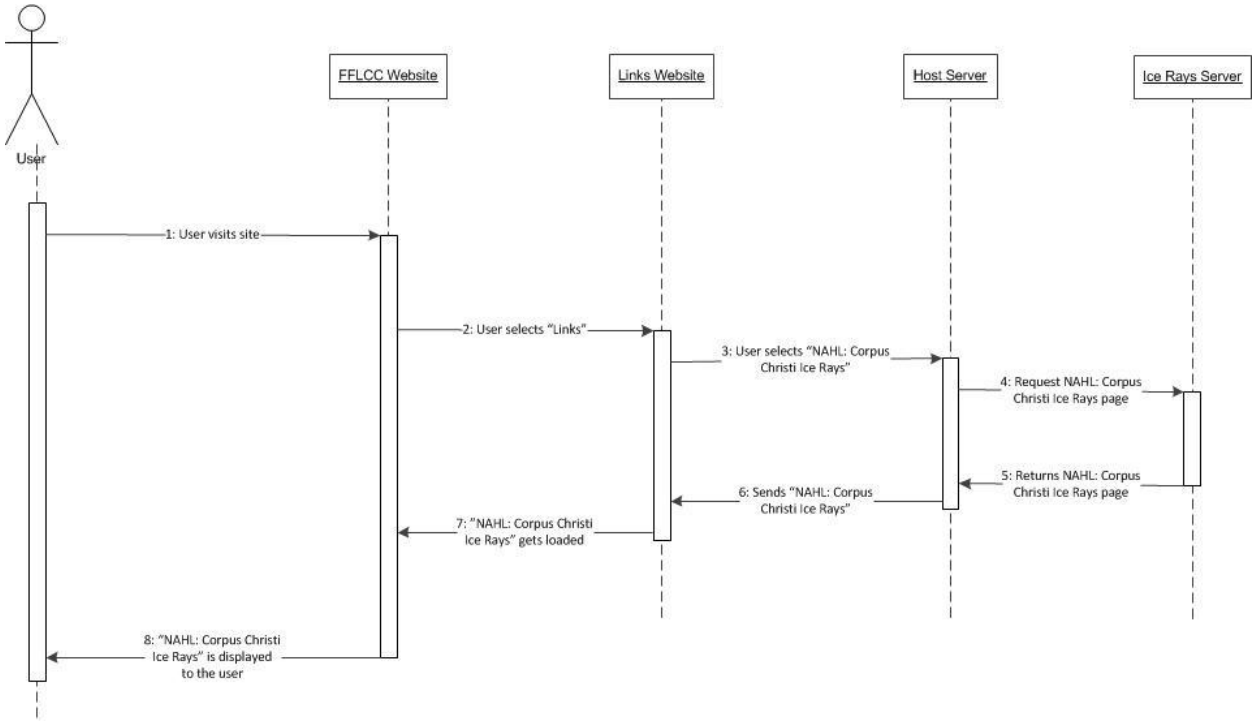
Bluff's Landing Marina & Lodge Webpage



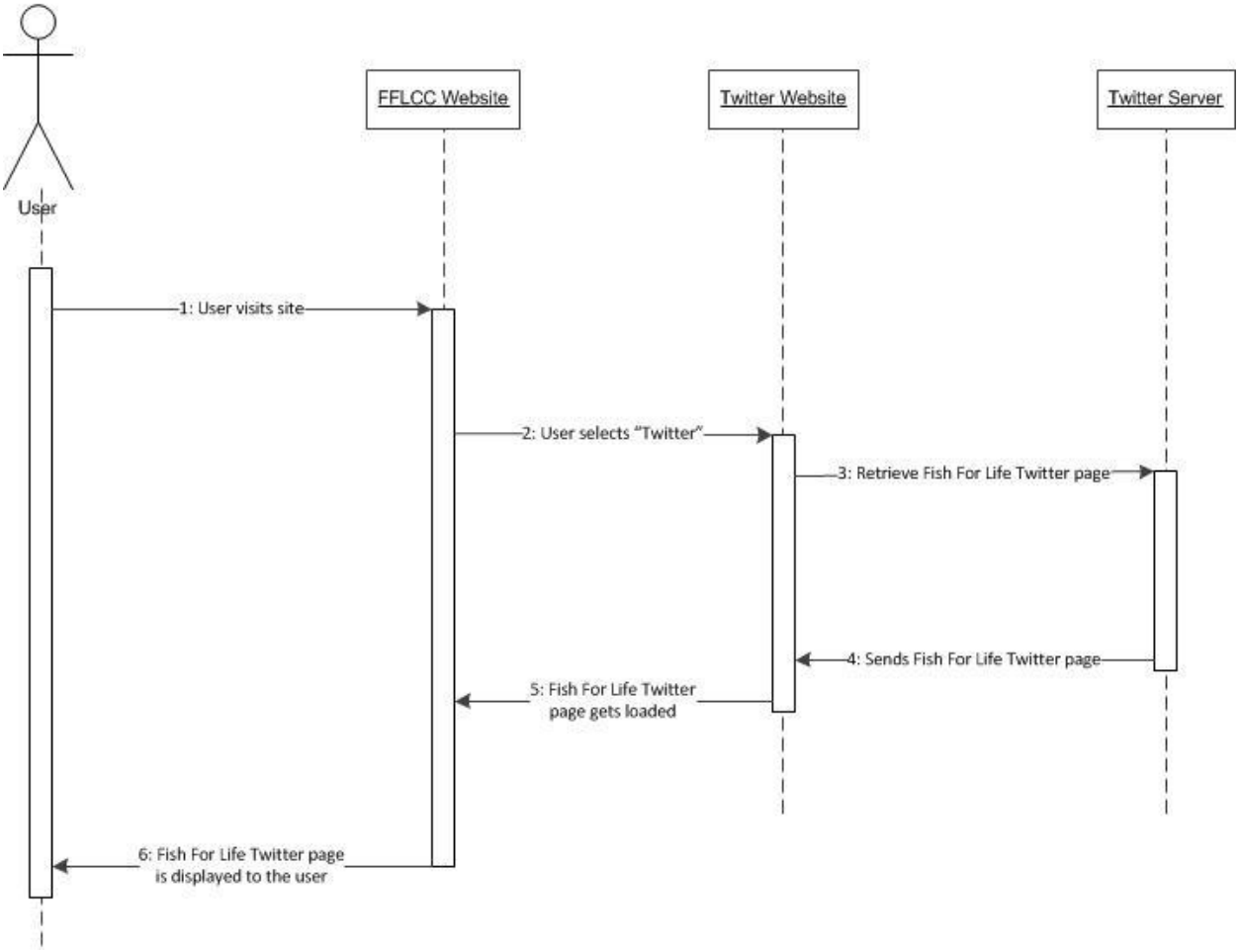
Sponsors Webpage



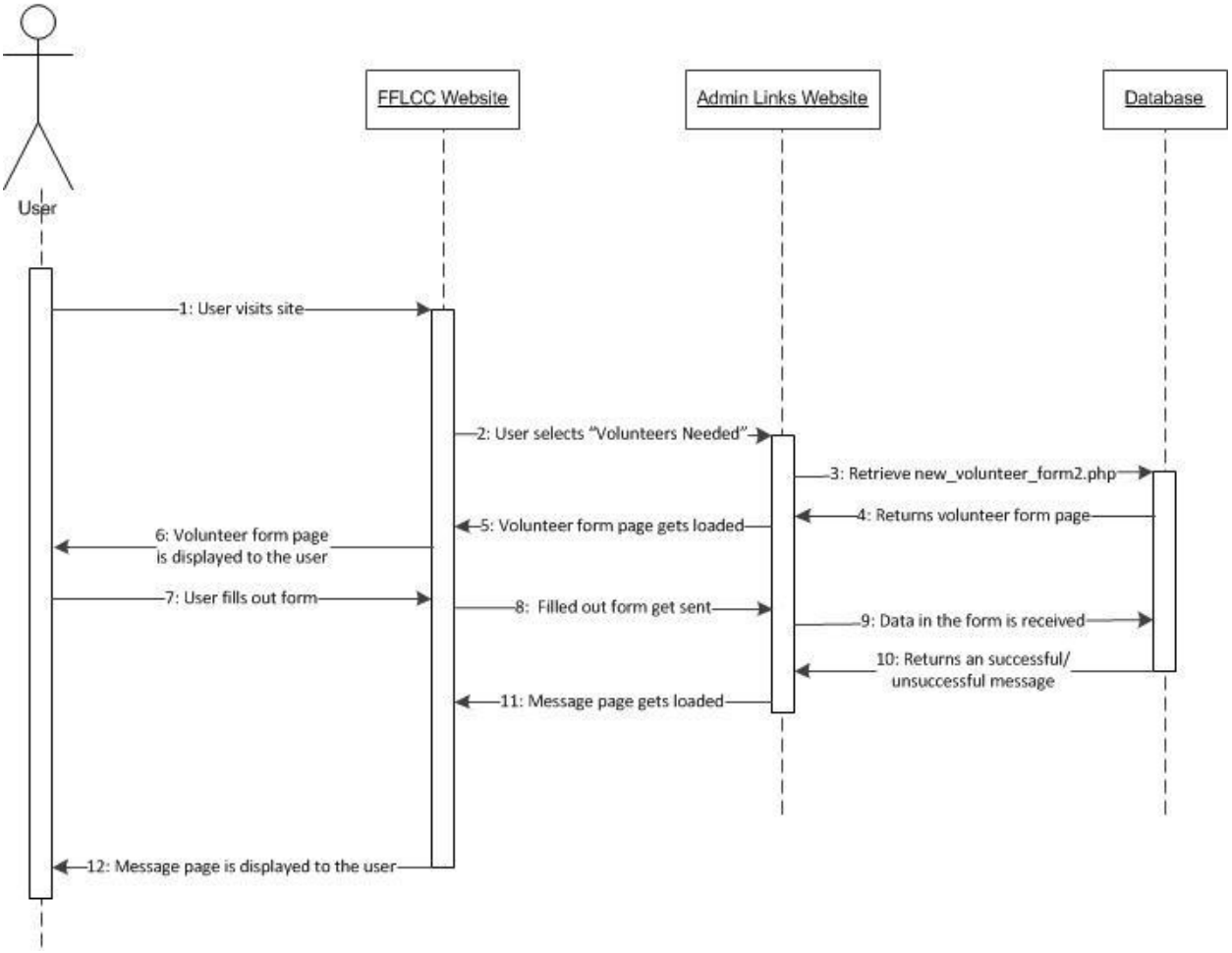
NAHL: Corpus Christi Ice Rays Webpage

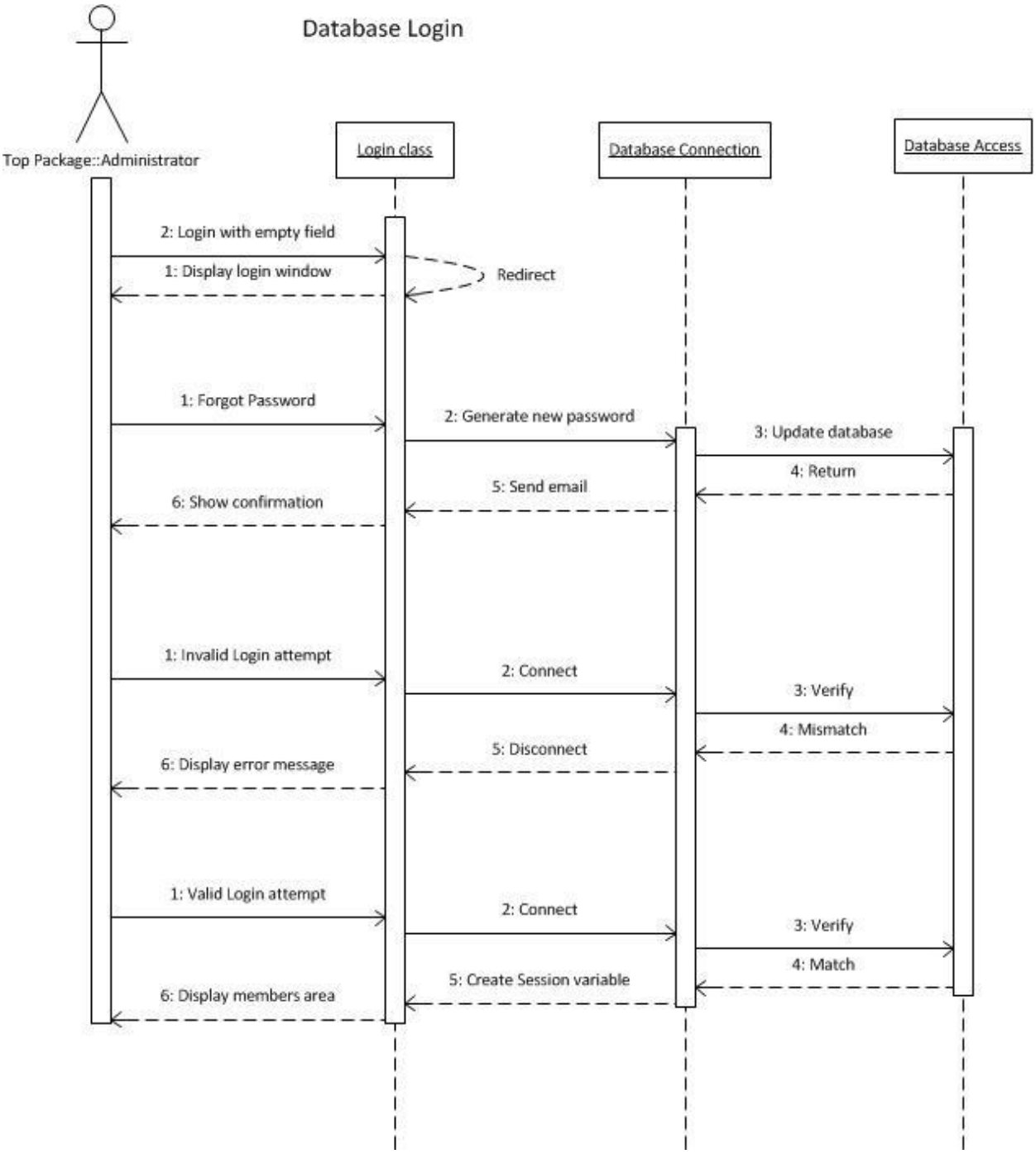


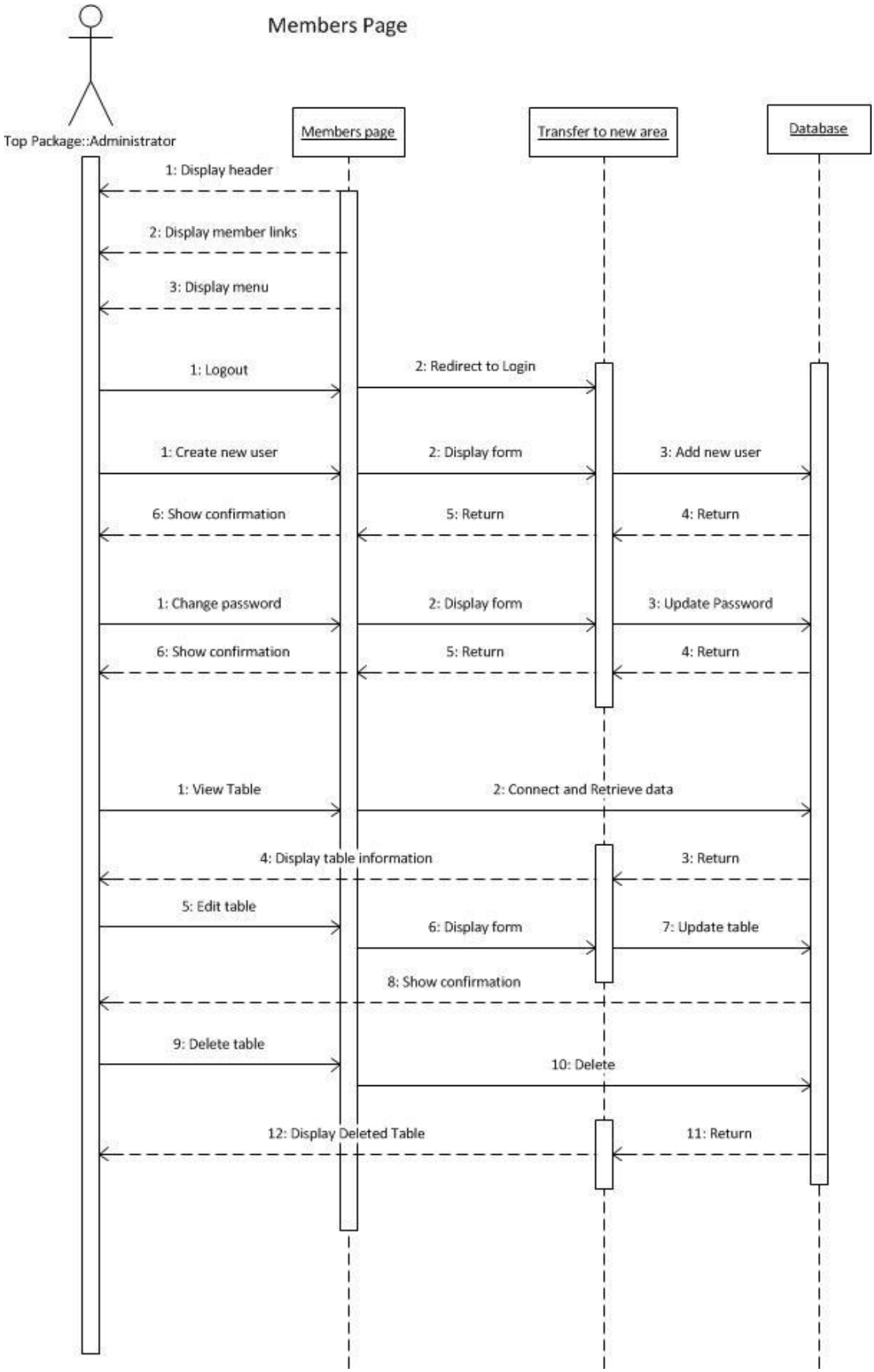
Twitter Webpage



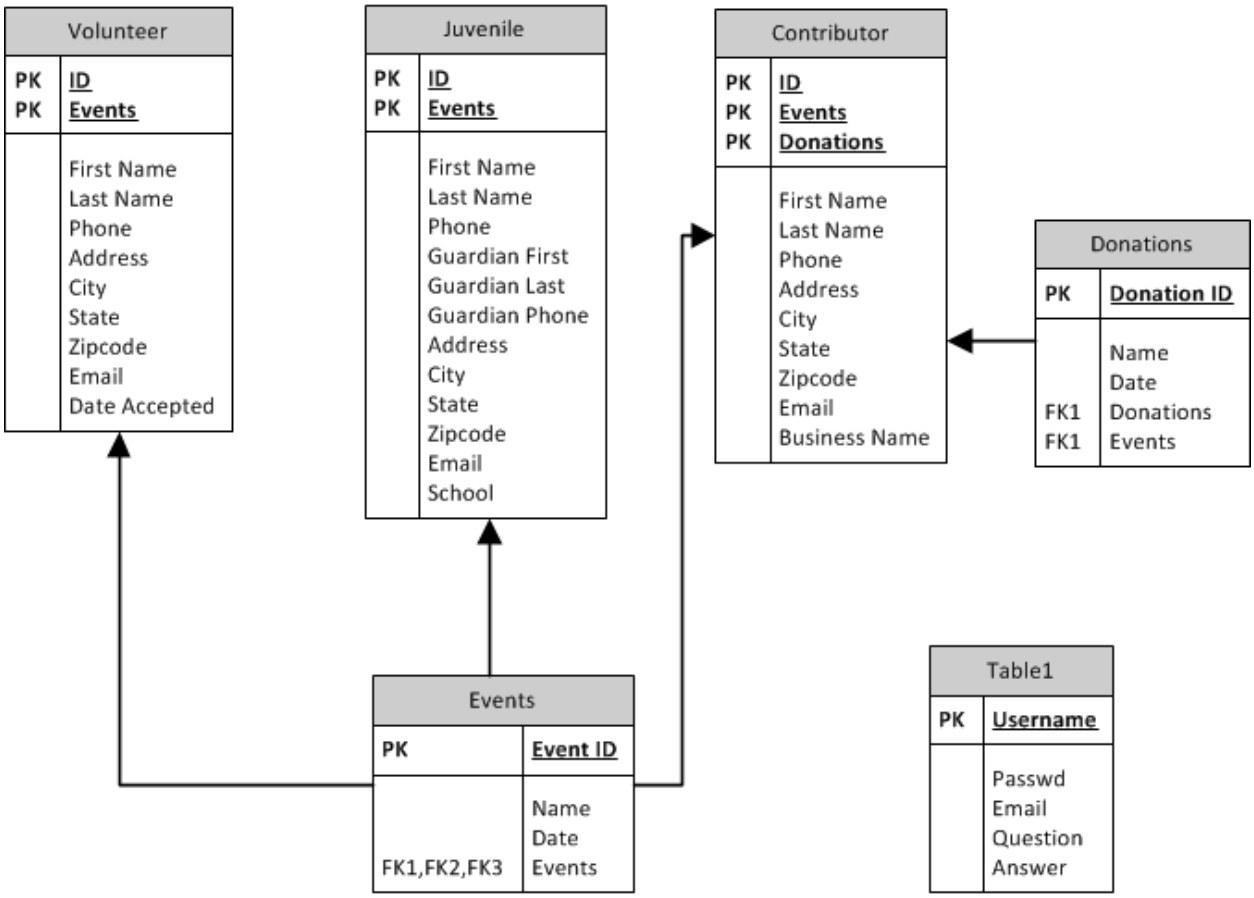
Volunteers Webpage




Database Login
Top Package::Administrator
Login class
Database Connection
Database Access
2: Login with empty field
1: Display login window
Redirect
1: Forgot Password
2: Generate new password
3: Update database
4: Return
5: Send email
6: Show confirmation
1: Invalid Login attempt
2: Connect
3: Verify
4: Mismatch
5: Disconnect
6: Display error message
1: Valid Login attempt
2: Connect
3: Verify
4: Match
5: Create Session variable
6: Display members area


Members Page
Top Package::Administrator
Members page
Transfer to new area
Database
1: Display header
2: Display member links
3: Display menu
1: Logout
2: Redirect to Login
1: Create new user
2: Display form
3: Add new user
6: Show confirmation
5: Return
4: Return
1: Change password
2: Display form
3: Update Password
6: Show confirmation
5: Return
4: Return
1: View Table
2: Connect and Retrieve data
4: Display table information
3: Return
5: Edit table
6: Display form
7: Update table
8: Show confirmation
9: Delete table
10: Delete
12: Display Deleted Table
11: Return

4) ERD



V. Implementation

The website will be written in html using Dreamweaver. There is some PHP in the basic webpages but it will be mainly html. We will also be using CSS for the styling of the webpage.

The database originally was going to be a Java applet and broken down in different Java applet windows. But the web host doesn't support the use of a Java applet on their websites, so we will be using PHP and html for the database interface. The login will be used on a secure socket and will be secure to hold the juvenile information.

The Android Smartphone application was going to be created in Java and XML using the eclipse IDE. But Amanda was able to get into the App Inventor program that Google created for application development. So we developed the application using this tool and it has a similar interface to simple programming tools like Alice.

VI. Test Plan

Description

This following is a Test Plan for the Fish for Life project. The plan explains the testing strategy and approach that will be used to validate the quality of this product prior to release.

Test Items

The following is a list, by version and release, of the items to be tested:

A. Fish for Life Website, Version 1.0

B. Fish for Life Database, Version 1.0

C. Fish for Life Android Application, Version 1.0

Software Risk/Issues

Google Calendar gives wrong dates due to a bug on Google side.

Different browsers see different colors and format.

Features to be Tested

The following is a list of the areas to be focused on during testing of the application.

A. Website Compatibility
B. Administration tools
C. Database Tools
D. Input/Output Validation

VII. Appendices

A. Meeting Minutes

B. Major Code Components

C. Administrator Manual

D. User Manual

E. Recommended Future work

A. Meeting Minutes

- September 10, 2010
- September 20, 2010
- September 22, 2010
- September 24, 2010
- October 1, 2010
- October 2, 2010
- October 8, 2010
- October 16, 2010
- October 18, 2010
- October 27, 2010
- October 29, 2010
- November 5, 2010
- November 13, 2010
- November 17, 2010
- November 20, 2010
- November 24, 2010
- November 25, 2010
- November 29, 2010
- December 1, 2010
- December 3, 2010
- December 4, 2010
- December 6, 2010
- December 8, 2010

1. September 10, 2010
   Members Present: AJ, Rafael, Joshua

   Agenda: Went over questions that we were going to ask Chuck before our meeting with him

2. September 20, 2010
   Members Present: AJ, Rafael, Joshua, Amanda, Chuck, Don

   Agenda: Went over what Chuck wanted from us for his database. We got an idea of the kind of information he wanted to store and how it had to be secure. We also talked a little of how he wanted the interface but didn't go into detail.

3. September 22, 2010
   Members Present: AJ, Rafael, Joshua, Amanda

   Agenda: Went over the basic requirements of what Chuck wanted and redefined them to what we actually needed to get done. We also had to get these ready before our meeting with Chuck on September 24, so that we can show him and verify if that's what he wanted from us.

4. September 24, 2010
   Members Present: AJ, Rafael, Joshua, Amanda, Chuck

   Agenda: Went over with chuck the requirements and made sure that we had them correct. We also talked about finding him a new webhost because the one he currently had didn't support a database. After this meeting we were ready to get in the analysis and design phase.

5. October 1, 2010
   Members Present: AJ, Rafael, Joshua, Amanda

   Agenda: Went over and finalized our requirements. Started to brainstorm over design ideas and started to create simple block diagrams to figure out how we were going to implement this.

6. October 2, 2010
   Members Present: AJ, Rafael, Joshua, Amanda

   Agenda: Created the ERD and a few of the Use cases needed to create the new website. We also began to brainstorm for our new idea of what to create extra other than the database and the website.

7. October 8, 2010
   Members Present: AJ, Rafael, Joshua, Amanda

   Agenda: Created status report and started talking about what kind of language to use for this implementation.

8. October 16, 2010
   Members Present: AJ, Rafael, Joshua, Amanda

   Agenda: Got new web host and the old webpage was taken down. We needed to create a new webpage immediately; before it was down for too long.

9. October 18, 2010
   Members Present: AJ, Rafael, Joshua, Amanda

   Agenda: Worked on webpage for the whole meeting.

10. October 27, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Got the new webpage fully operational. On this day we made sure the website was working and had everything it needed to be appropriate for Chucks use.

11. October 29, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Began working on Java applet for website and got the idea to create a cell phone application for his organization. We also made tweaks to his website and started to create the tables needed for the website.

12. November 5, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Still working on Java applet and the website. Got the photos working through Flickr on the website and trying to get a working calendar on there. Tables are done and most of the diagrams are being completed.

13. November 13, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

Agenda: Started working on cell phone application and still working on Java applet. Java Applet is ready to be put on website but we haven't figured out how to get it working on the website yet.

14. November 17, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Figured out that the Java applet wouldn't work on our website, now we have to get it working on PHP. Cell phone application still being developed and the website now has a blog.

15. November 20, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Still working on the PHP interface got it connecting to the database. Website has a working Google Calendar.

16. November 24, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Finished our documentation. Phone application is showing progress and the website is done. PHP is still being worked on, trying to figure out how to display tables in a friendly way.

17. November 25, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Worked on smartphone application. PHP login is complete.

18. November 29, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Worked on smartphone application links are done, working on game. PHP forms are complete to add new contributors, volunteers, and juveniles.

19. December 1, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Worked on the smartphone application game. PHP tables can be viewed.

20. December 3, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

Agenda: Smartphone application complete. Working on PHP validation and got SSL connected. Updated documentation.

21. December 4, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Corrected more documentation and updated PHP tables to edit and delete

22. December 6, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Practiced final presentation and updated more documentation

23. December 8, 2010
    Members Present: AJ, Rafael, Joshua, Amanda

    Agenda: Finished up all the documentation and put it altogether.

B. Major Code Components

a. PHP directory contains all database code

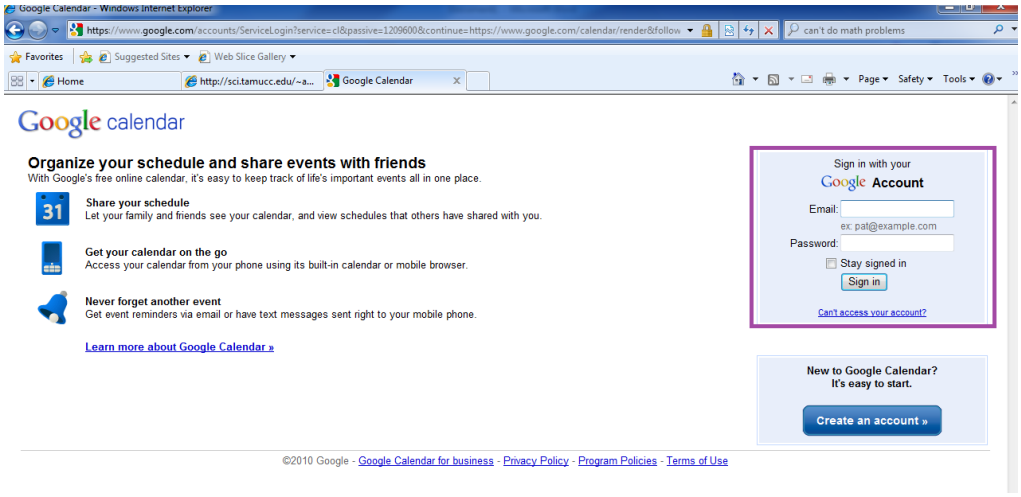
b. HTML directory contains all website code

c. PhoneApp directory contains all Android code. Unable to retrieve code at this time

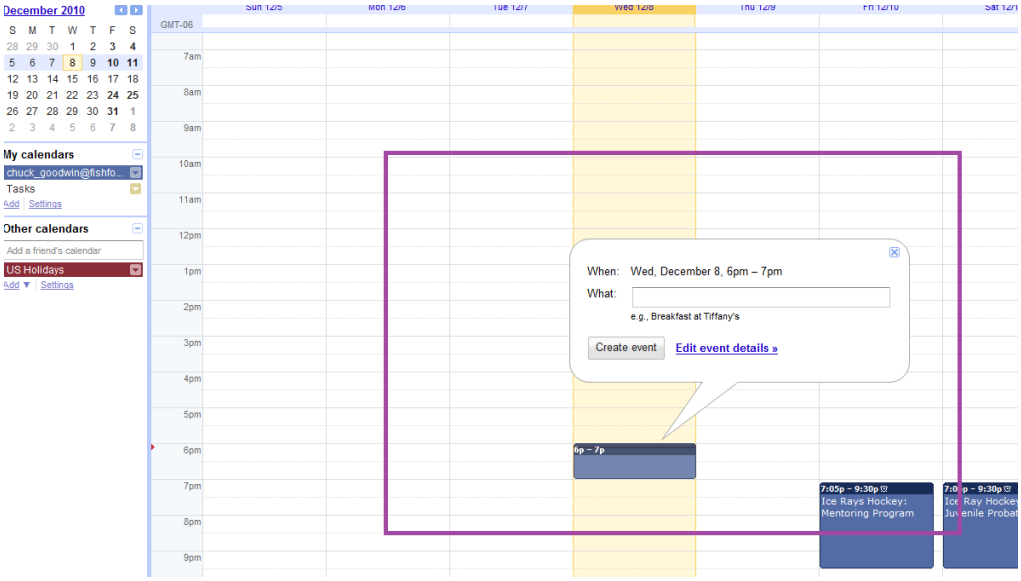
C. Administrator Manual

A. Add calendar date

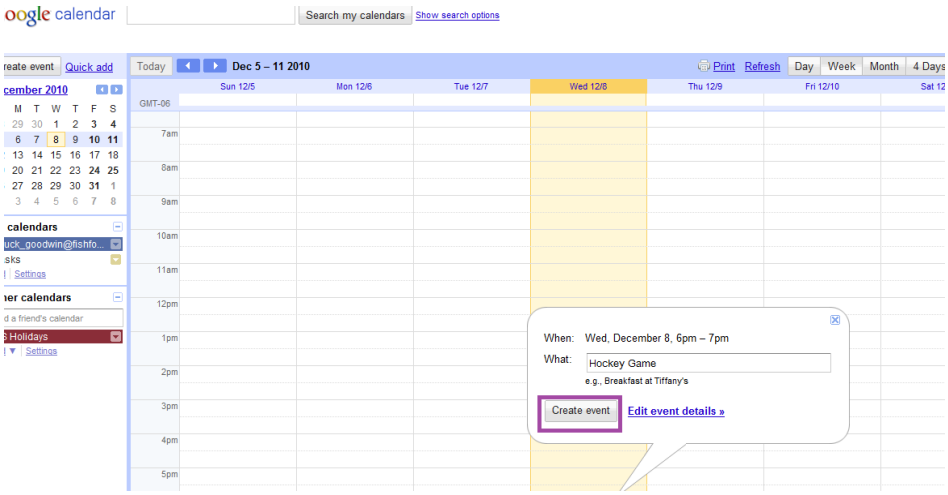
1. Login to Google calendar at http://calendar.google.com



2. Click on a timeline to add an event

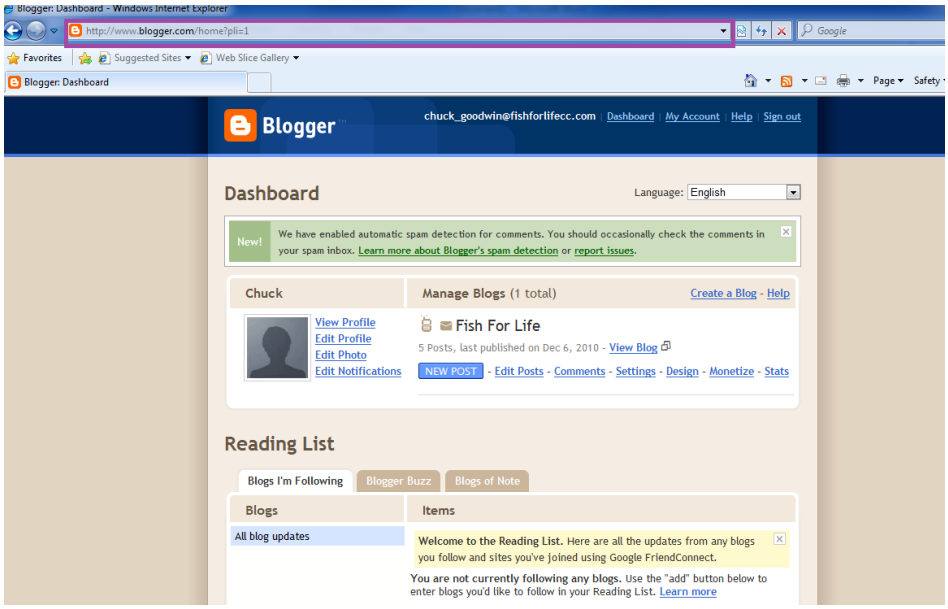


3. Type what event it is and then click “create event”

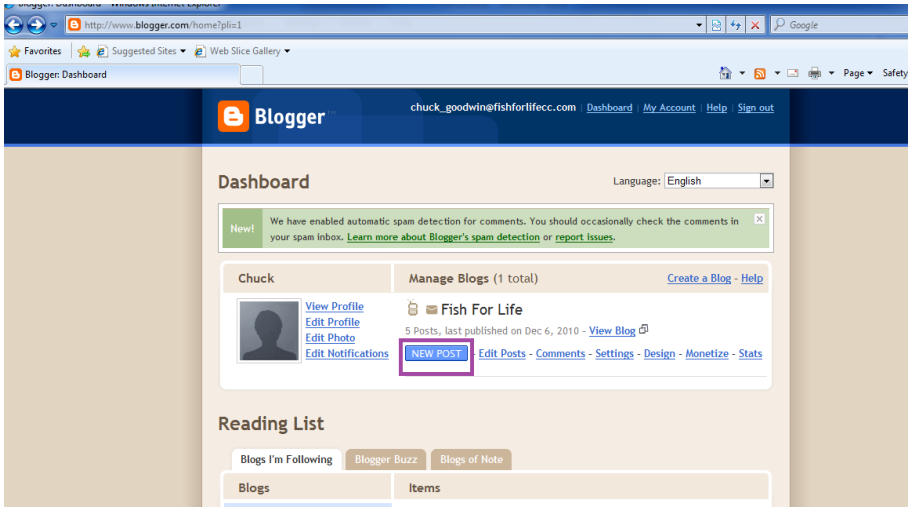

oogle calendar
Search my calendars
Show search options
reate event
Quick add
cember 2010
M T W T F S
29 30 1 2 3 4
6 7 8 9 10 11
13 14 15 16 17 18
20 21 22 23 24 25
27 28 29 30 31 1
3 4 5 6 7 8
calendars
uck_goodwin@fishfo...
sks
Settings
er calendars
d a friend's calendar
Holidays
Settings
Today
Dec 5 – 11 2010
Print
Refresh
Day
Week
Month
4 Days
Sun 12/5
Mon 12/6
Tue 12/7
Wed 12/8
Thu 12/9
Fri 12/10
Sat 12
GMT-06
7am
8am
9am
10am
11am
12pm
1pm
2pm
3pm
4pm
5pm
When: Wed, December 8, 6pm – 7pm
What: Hockey Game
e.g., Breakfast at Tiffany's
Create event
Edit event details »

B. Add blog post

1. Login to blogger at www.blogger.com

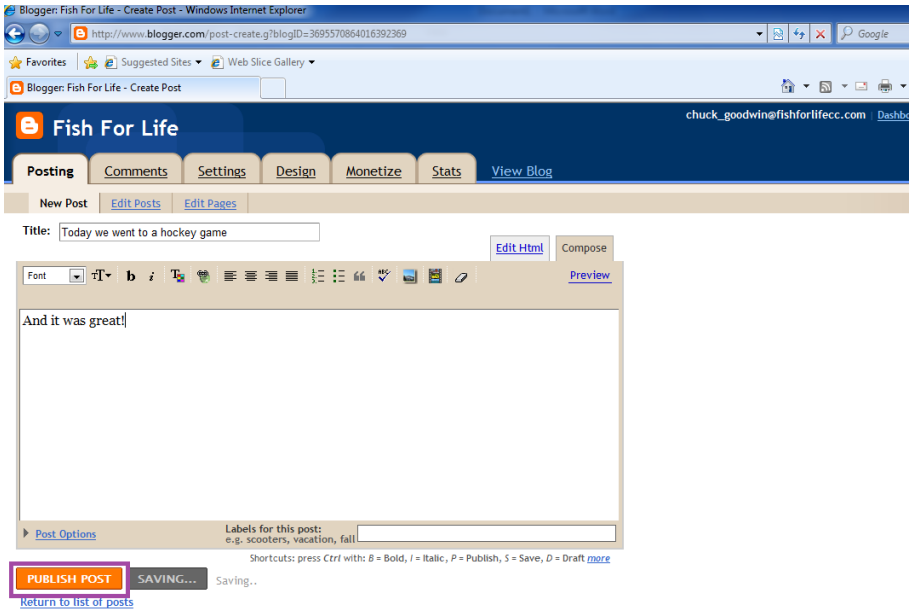


2. Click on “new post”



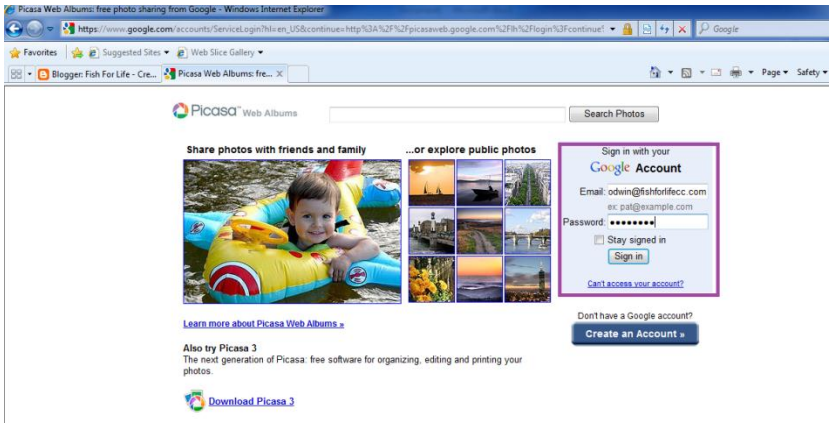
3. Type the title you would like and then the article after that

4. Click “Publish post” to create the new post for everyone to see

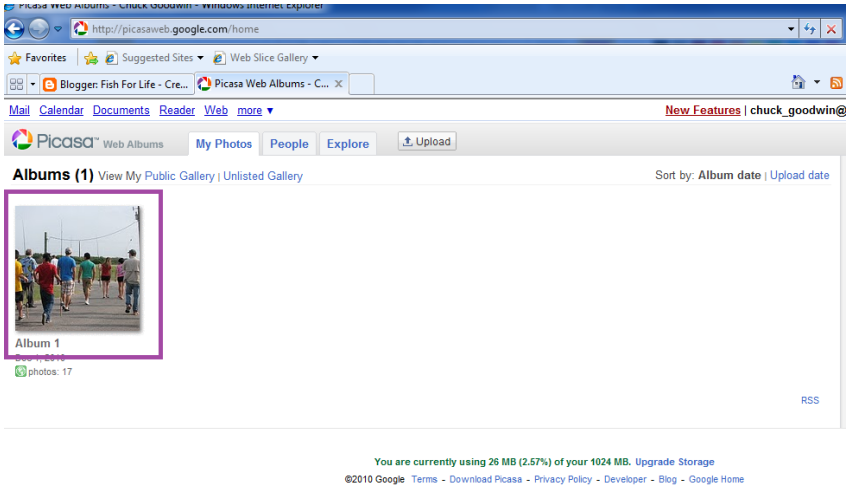


C. Add picture

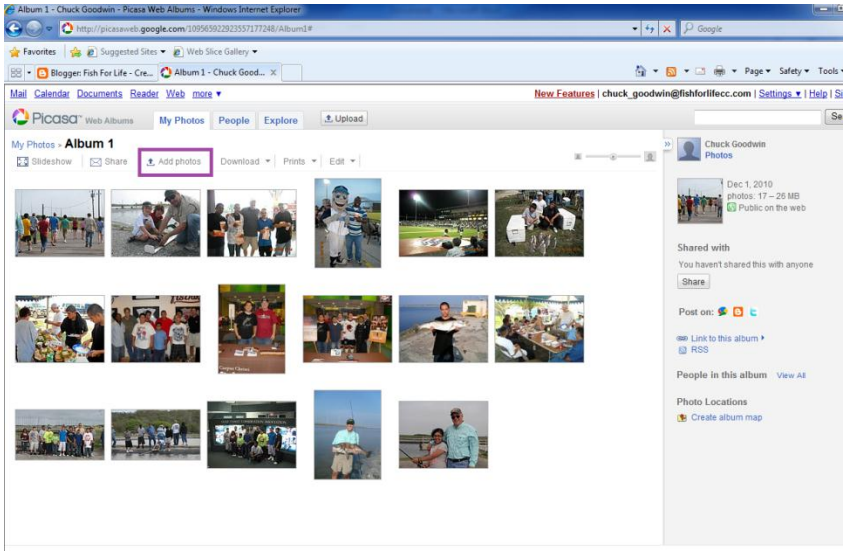
1. Login to Picasa at www.picasaweb.google.com



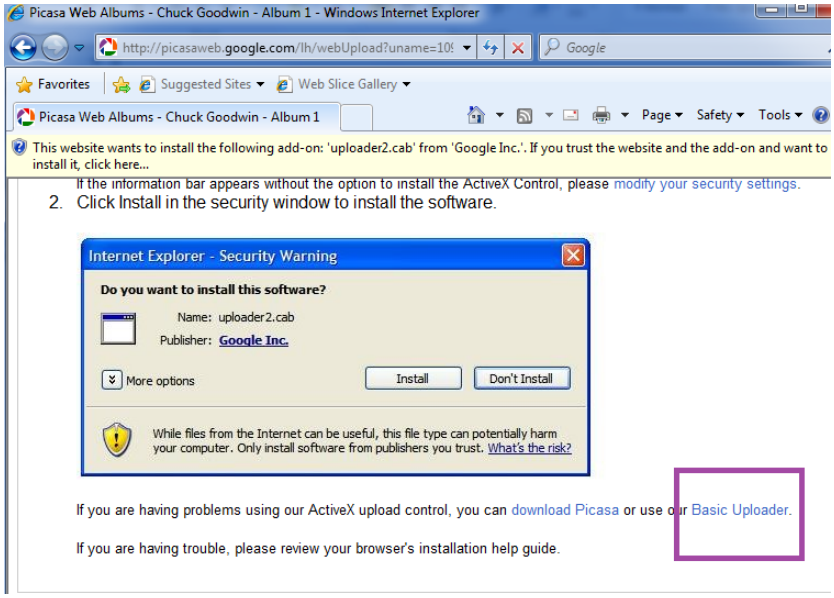
2. Choose your album



3. Click on “Add Photo”

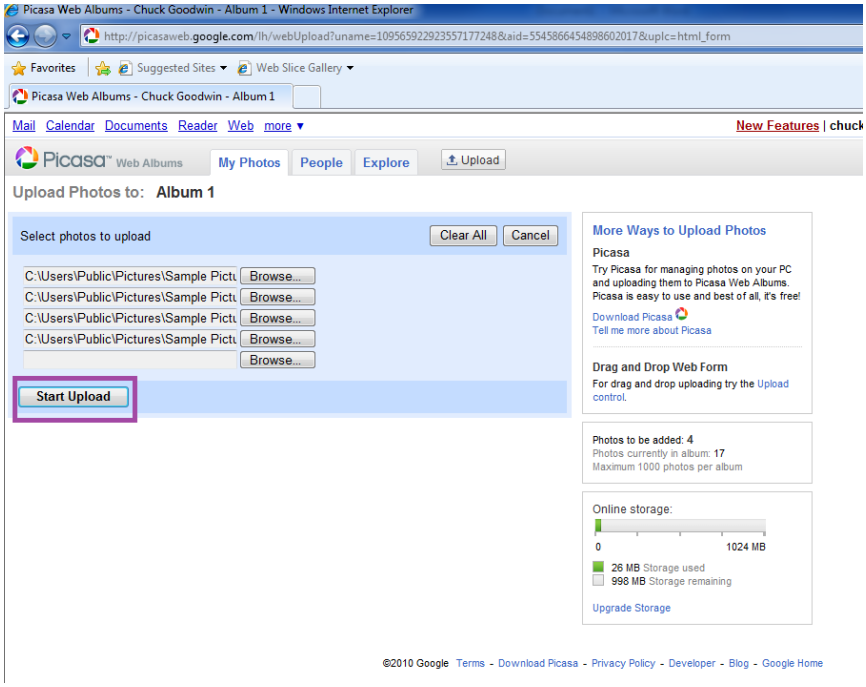


4. (Optional) This screen may or may not come up, if so click “basic uploader”



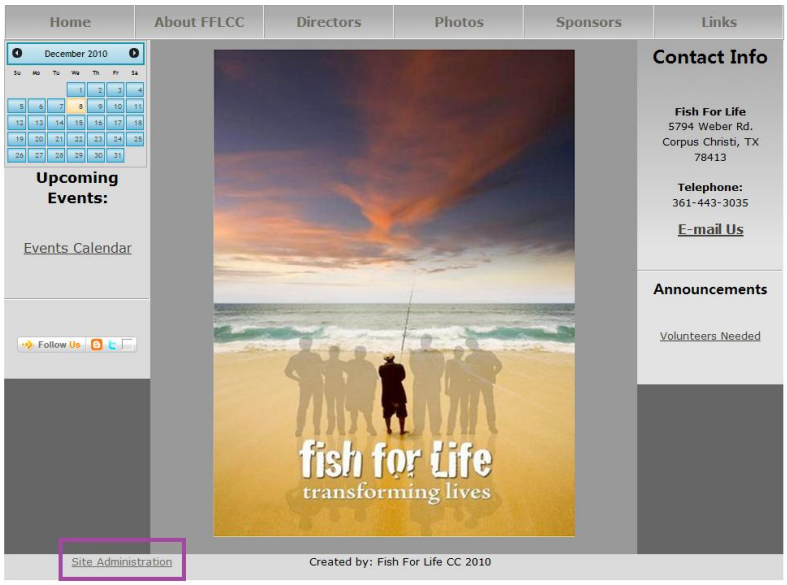
5. Browse the image on the website

6. Once all pictures are found click “Upload Pictures”

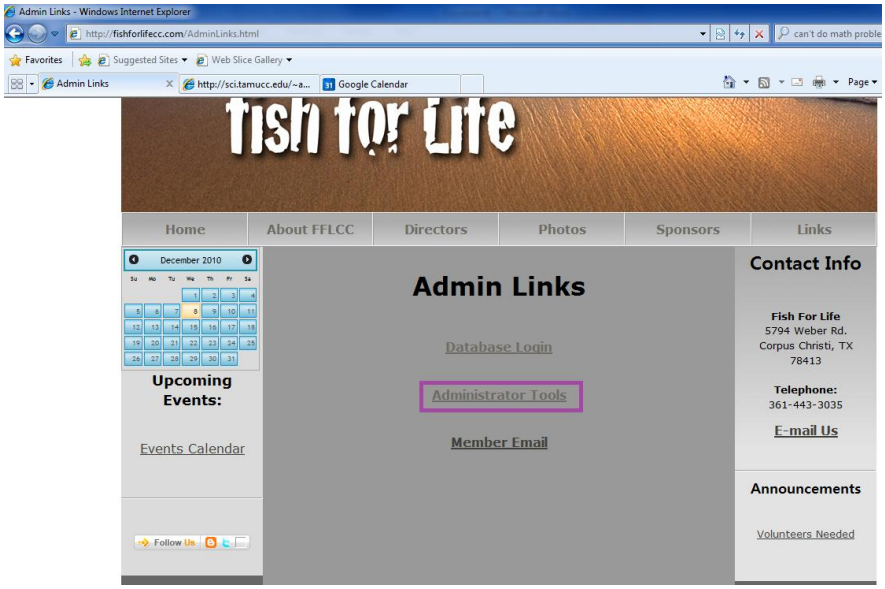


D. Login to administrator tools

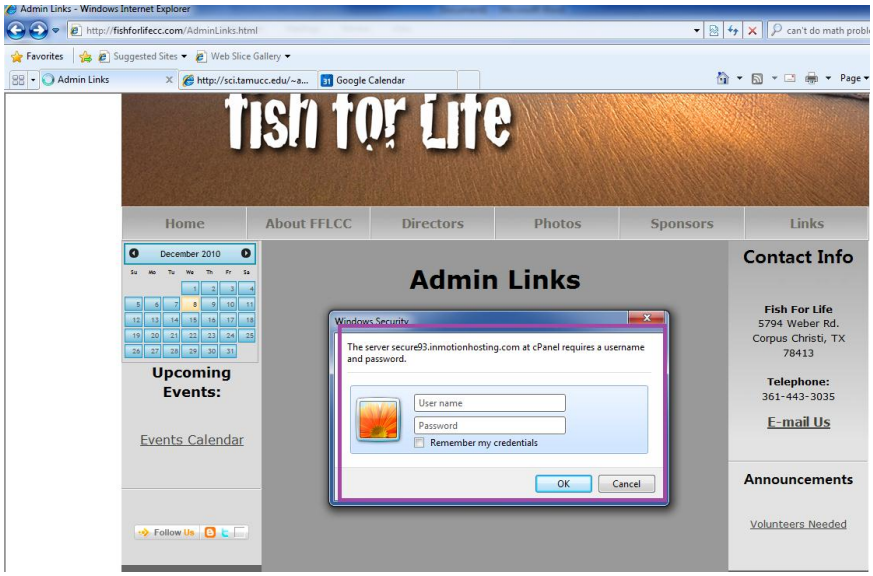
1. Click on Site Administration from the main website



2. Click on Administration Tools

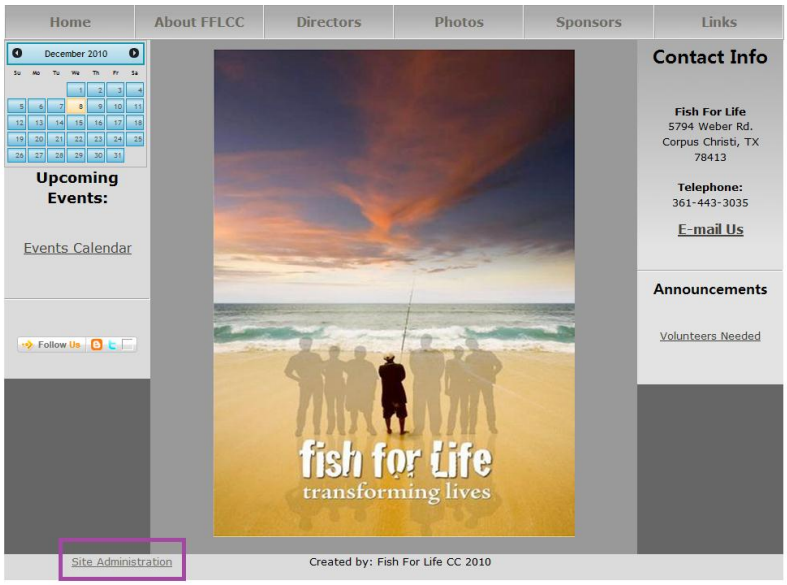


3. Login to get to the cPanel tools

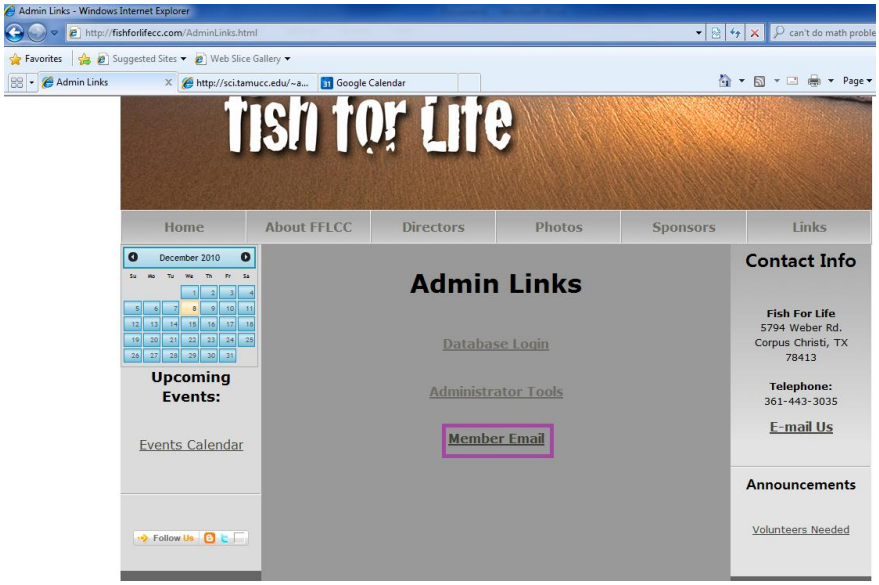


E. Login to email

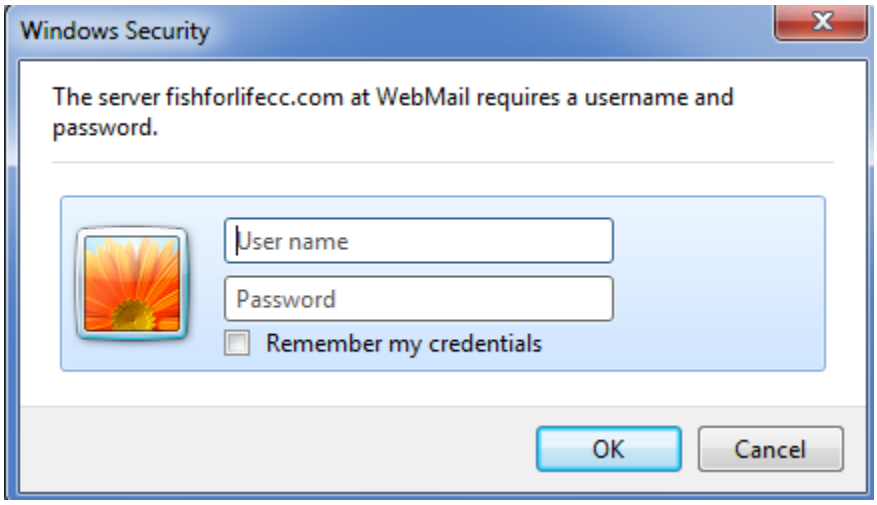
1. Click on Site Administration from the main website



2. Click on Member E-mail

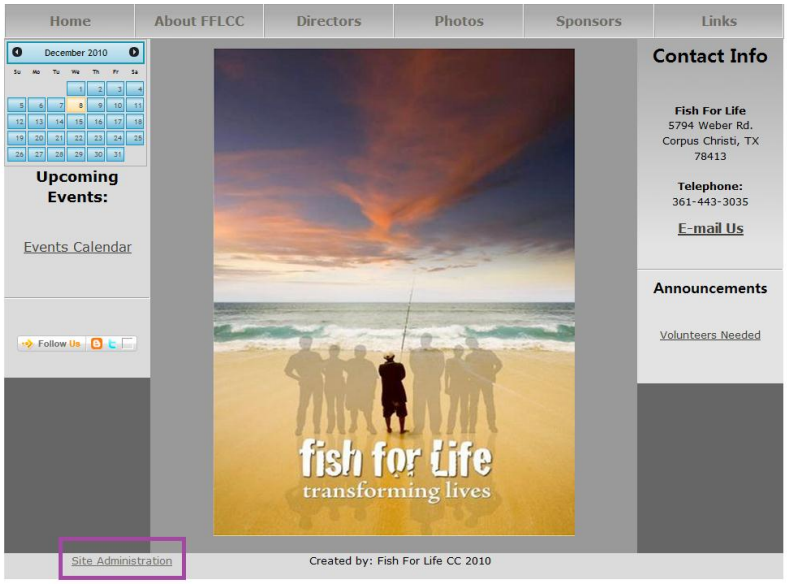


3. Login to get to your webmail

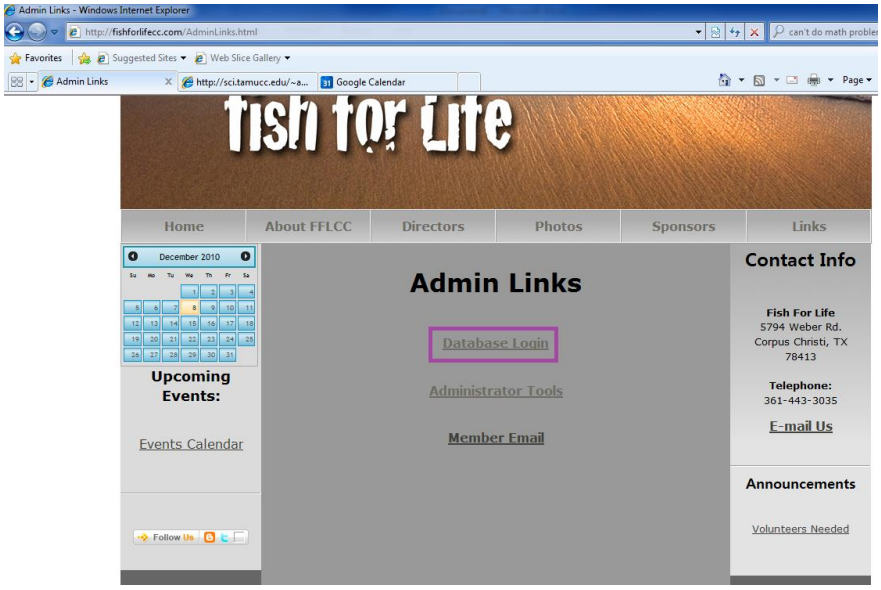


F. Login to database

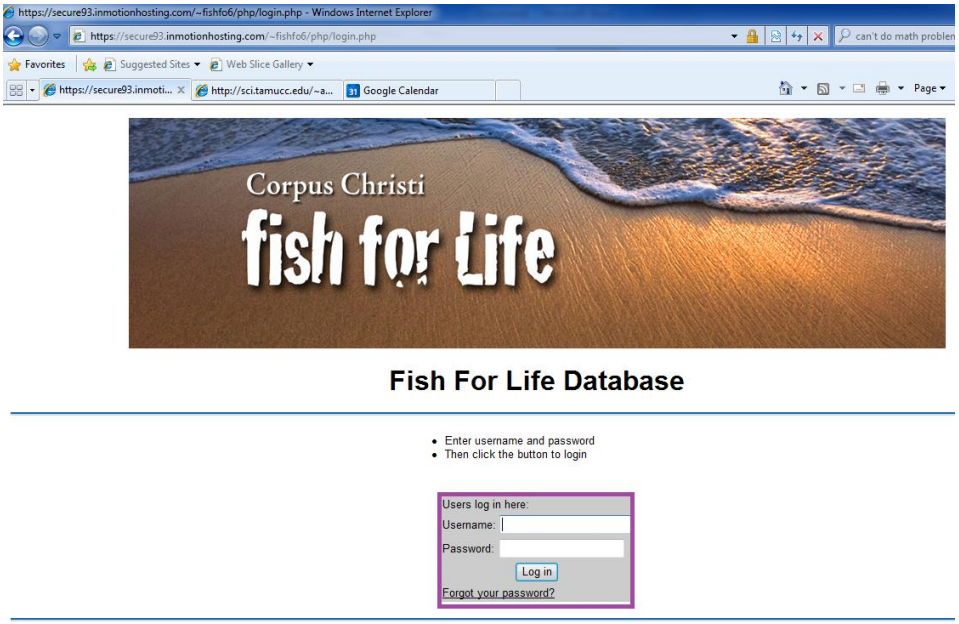
1. Click on Site Administration from the main website



2. Click on Database Login

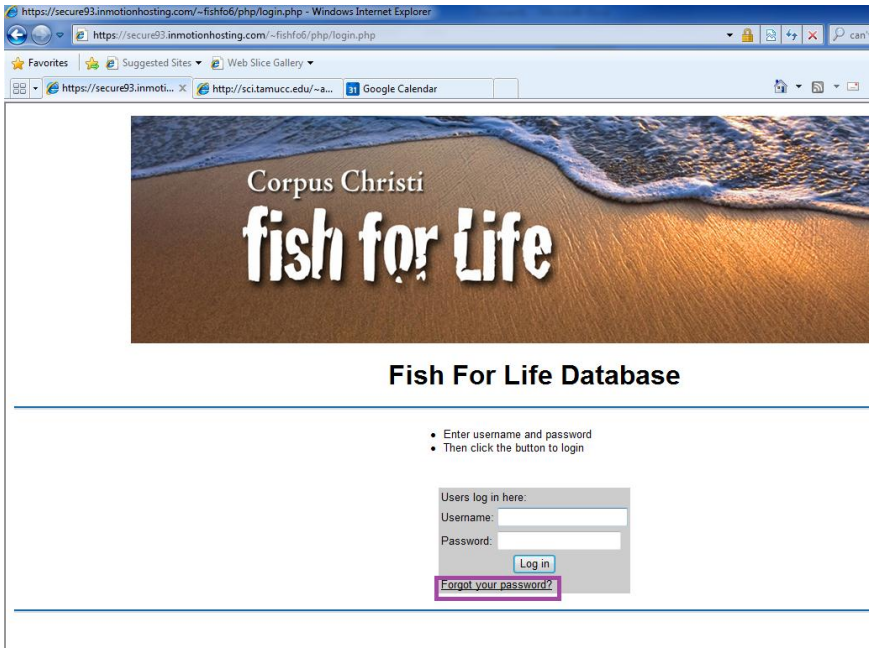


3. Login to get access to the database

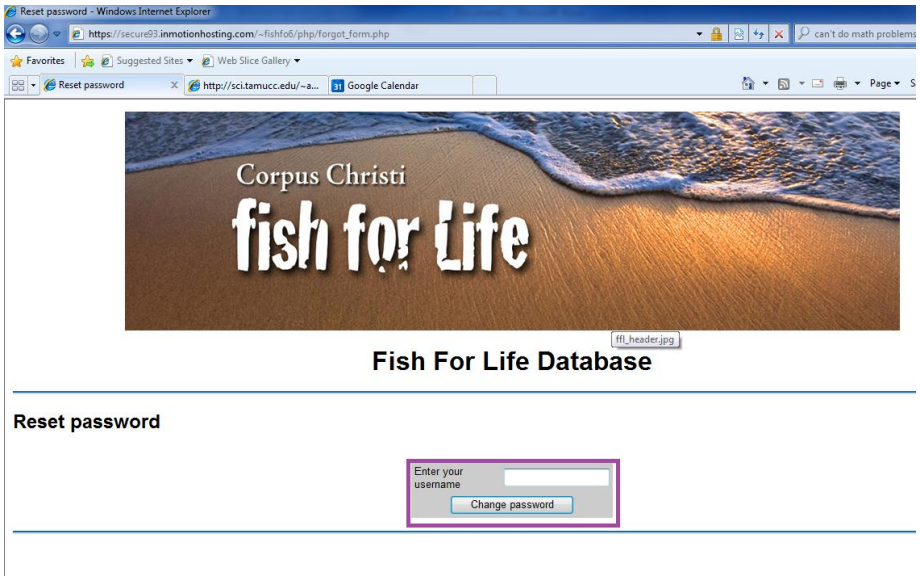


G. Request new password

1. From the Database Login click on forgot password



2. Enter your username

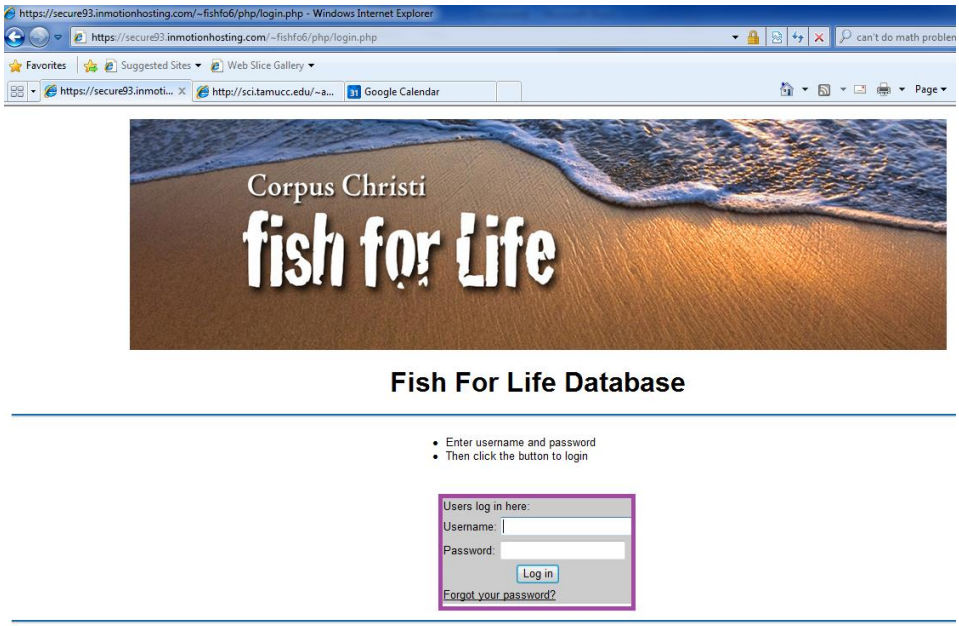


3. Check E-mail for new email

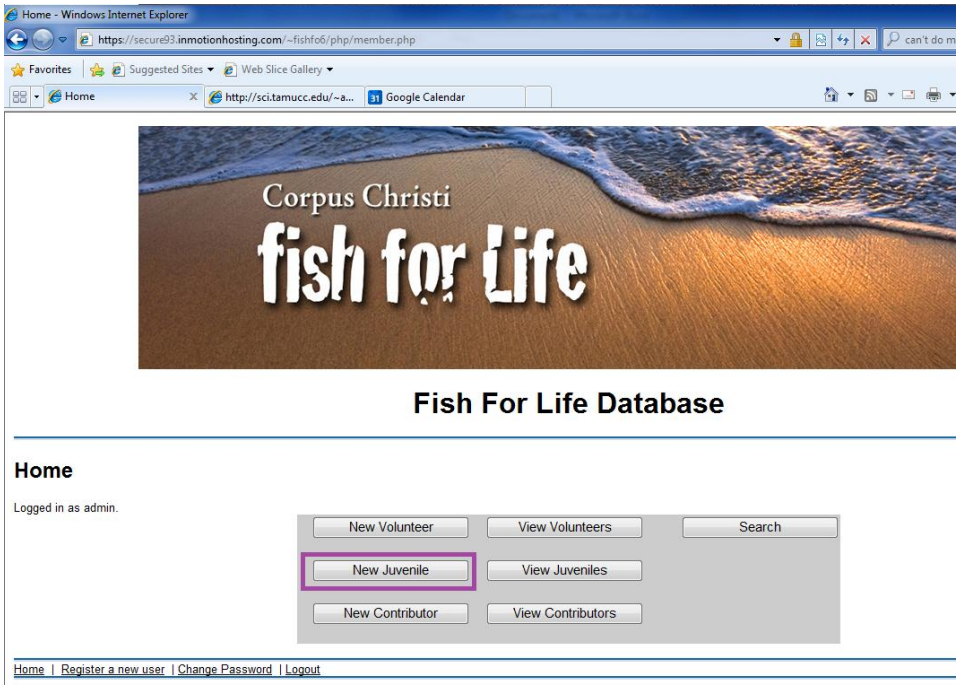
4. Login to database

H. Add Juvenile

1. Login to database



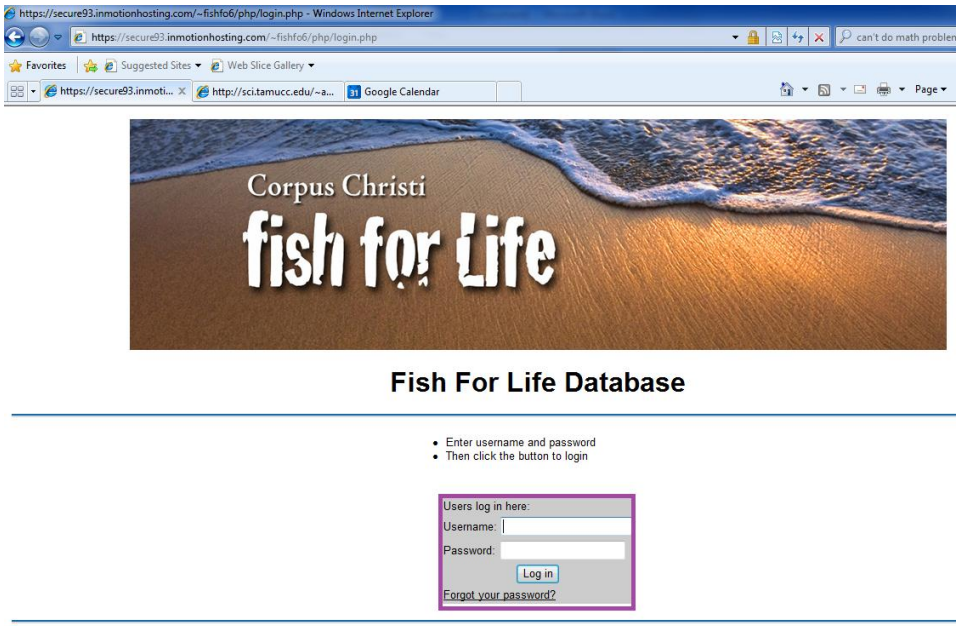
2. Click on New Juvenile



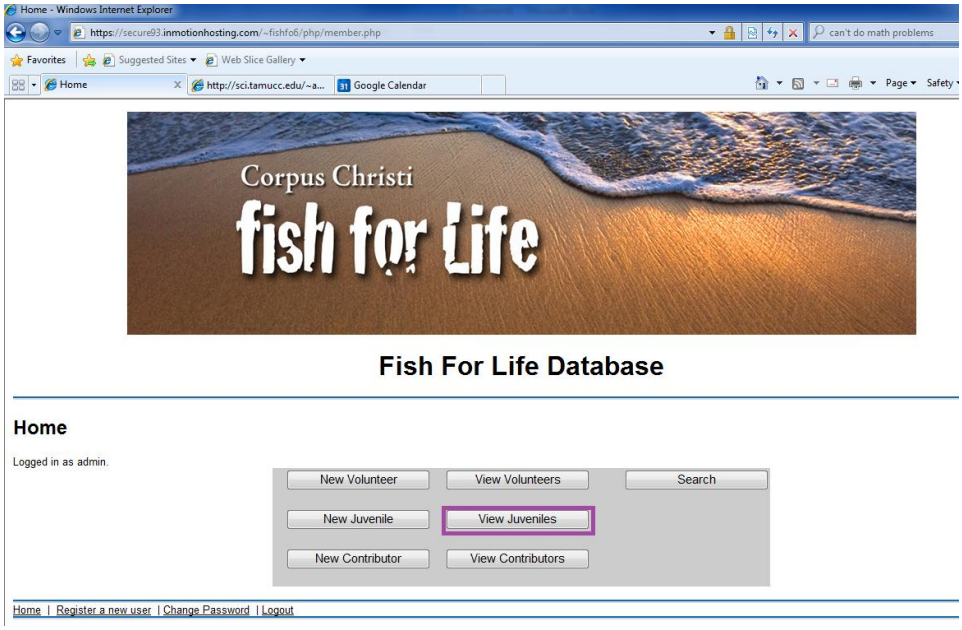
3. Fill out the form then click submit

I. View Juvenile

1. Login to database



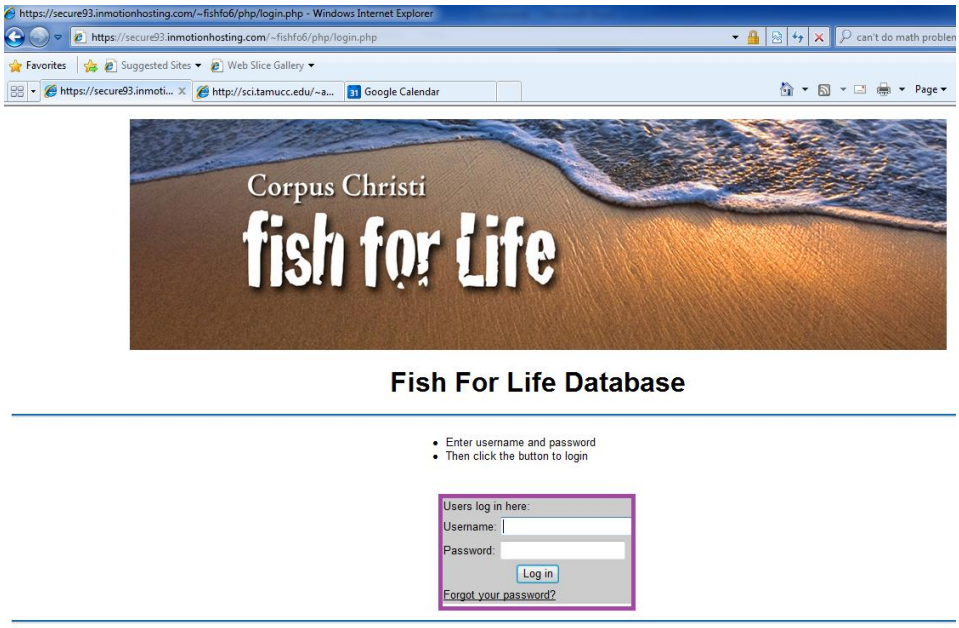
2. Click on View Juvenile



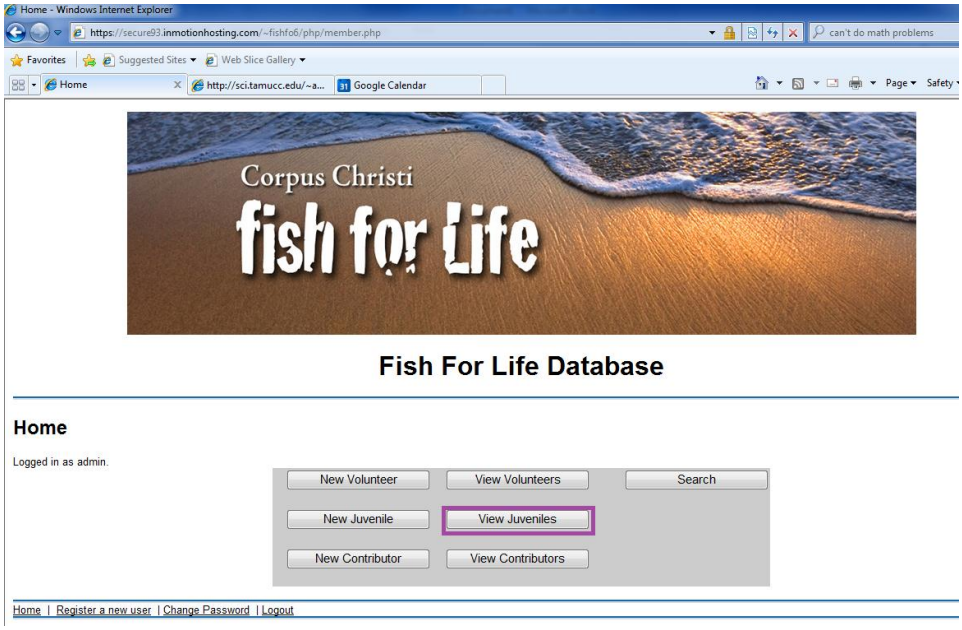
3. List of juveniles is shown

J. Edit Juvenile

1. Login to database



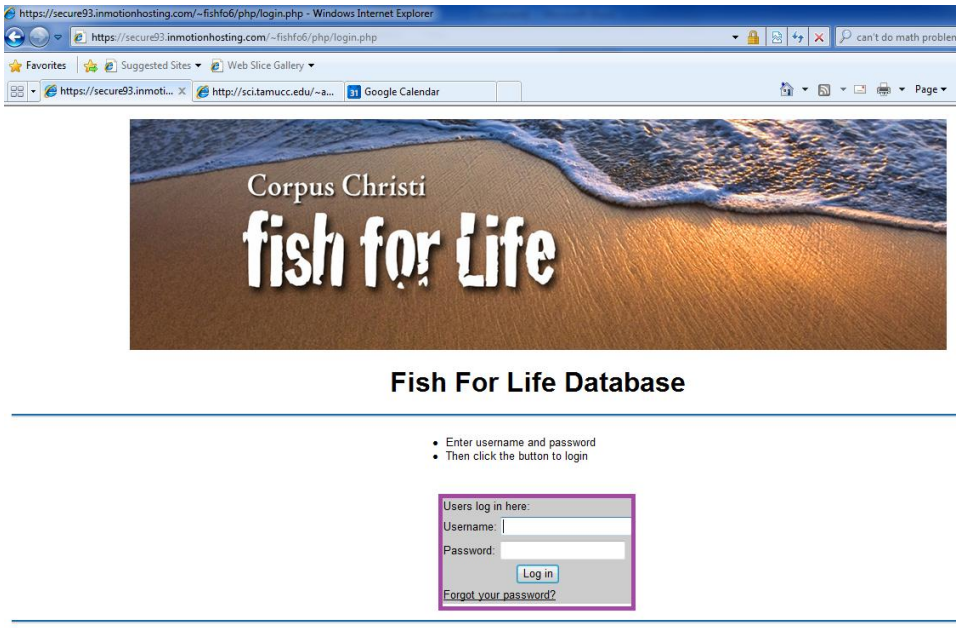
2. Click on View Juvenile



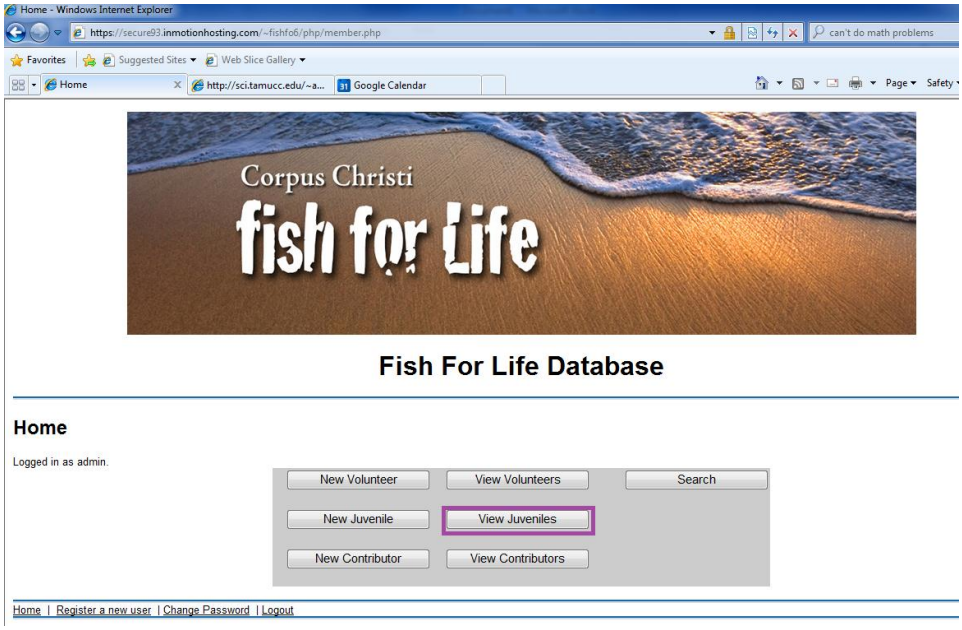
3. Click the edit button next to the juvenile you want to edit

K. Delete Juvenile

1. Login to database



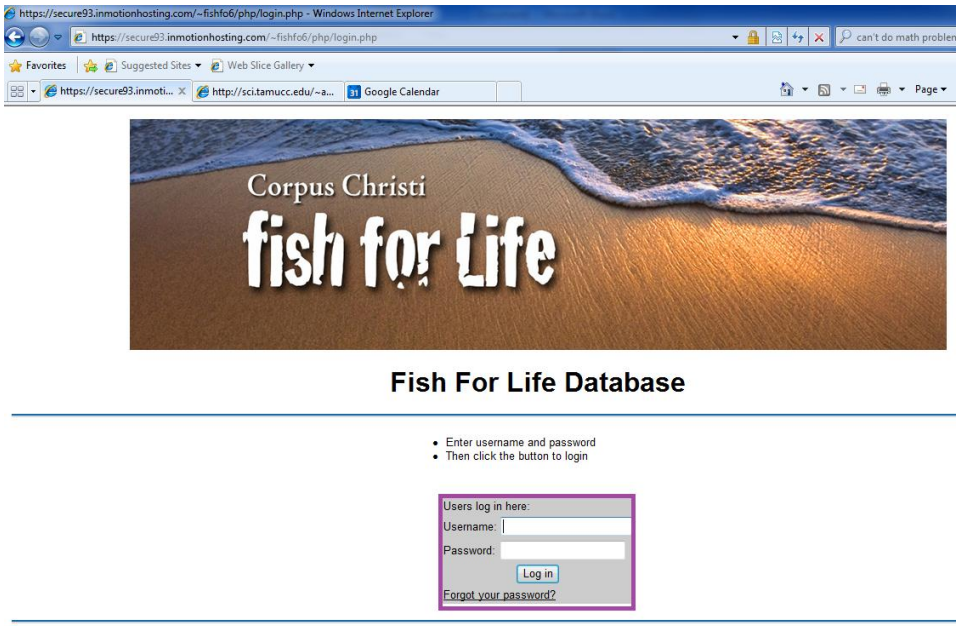
2. Click on View Juvenile



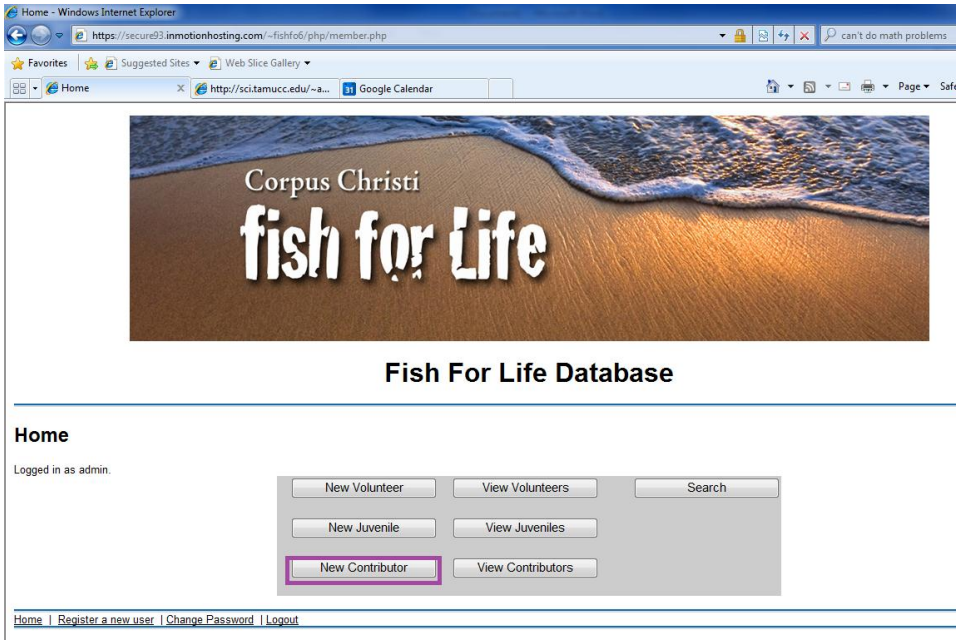
3. Click the delete button next to the juvenile you want to delete

L. Add contributor

1. Login to database



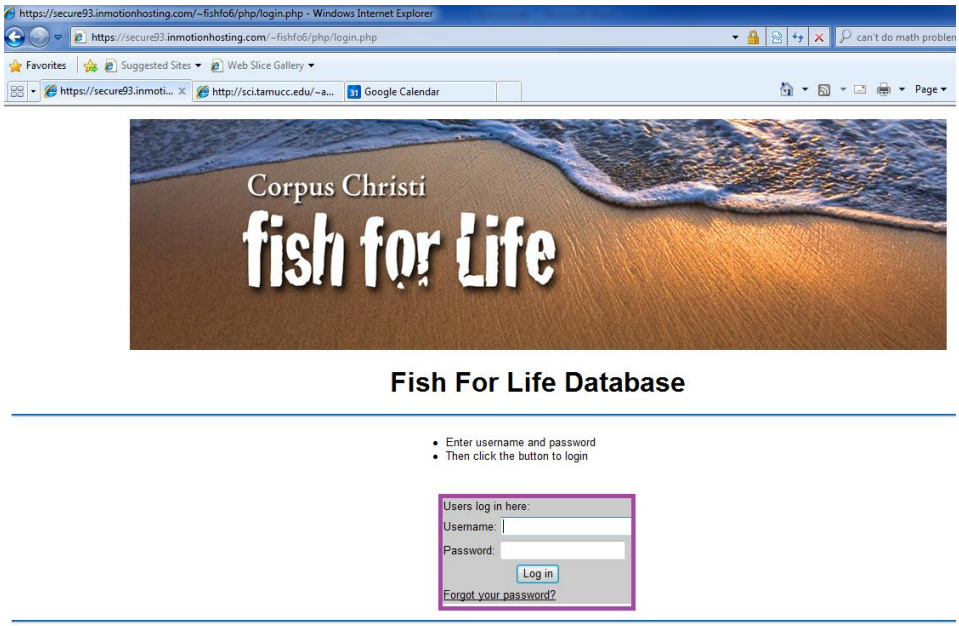
2. Click on New Contributor



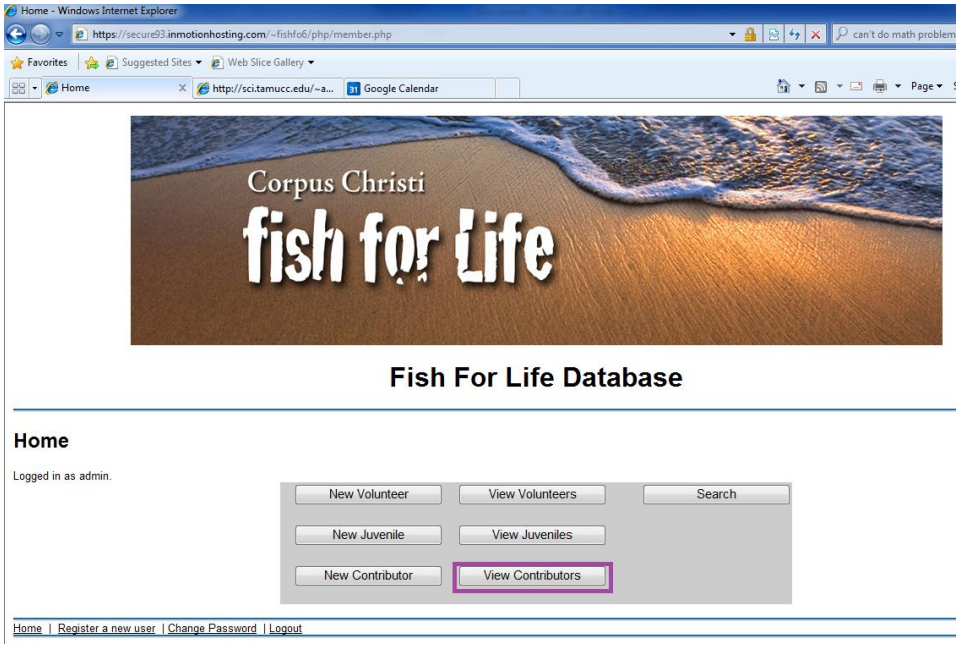
3. Fill out the form then click submit

M. View contributor

1. Login to database



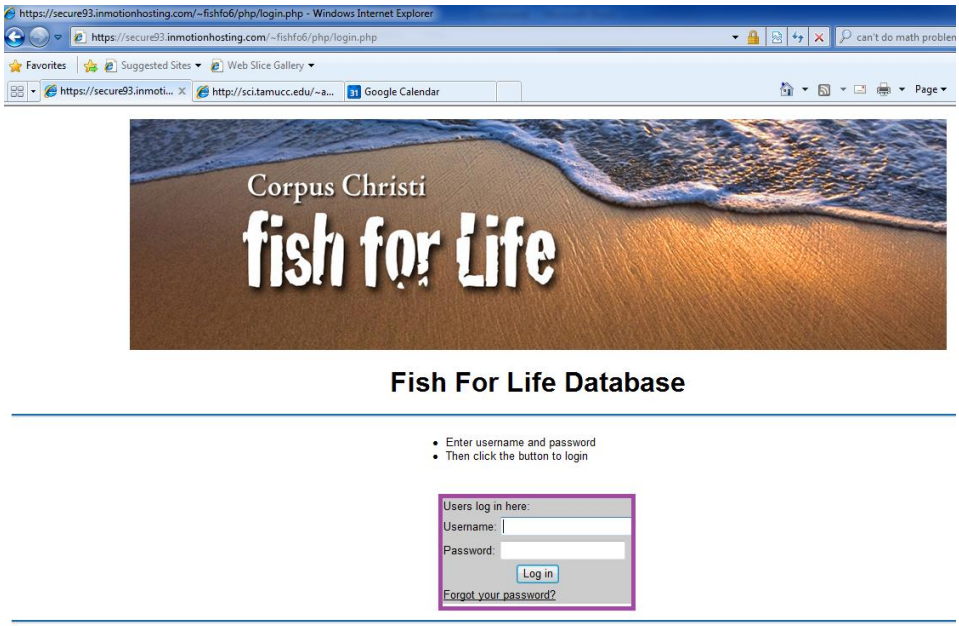
2. Click on View Contributor



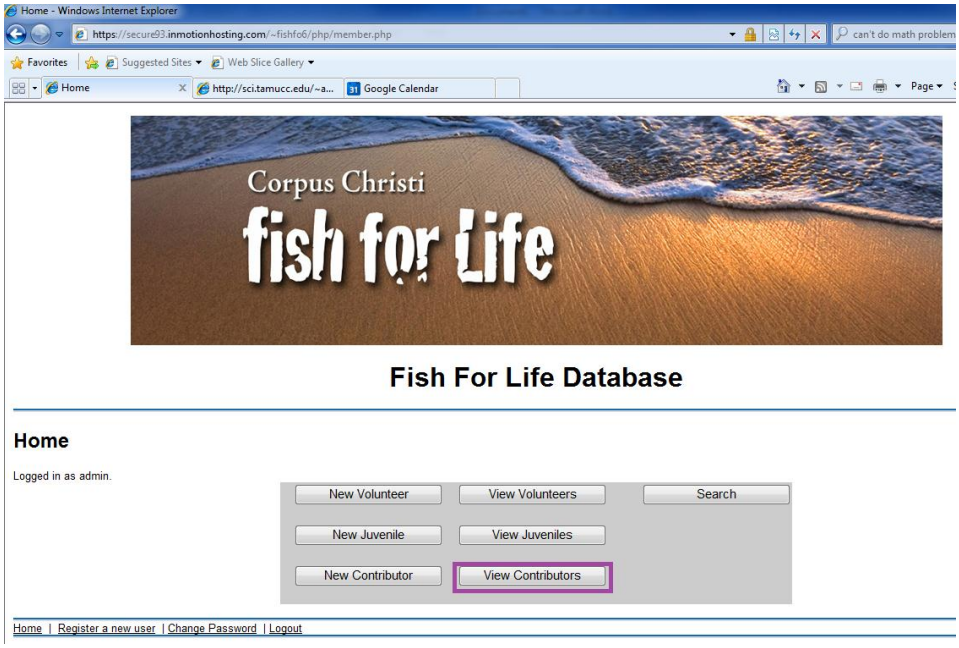
3. List of contributors is shown

N. Edit contributor

1. Login to database



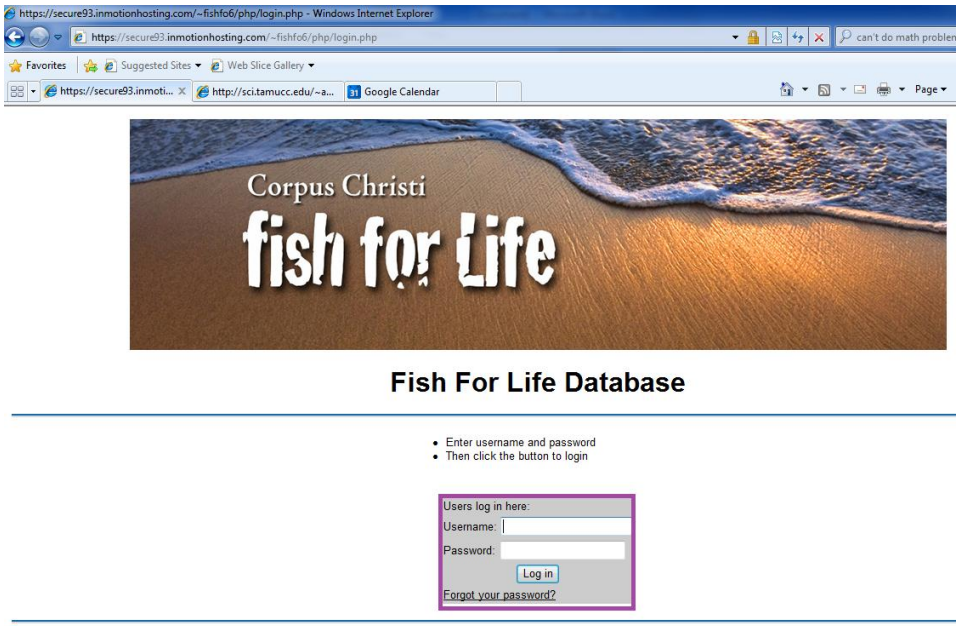
2. Click on View Contributor



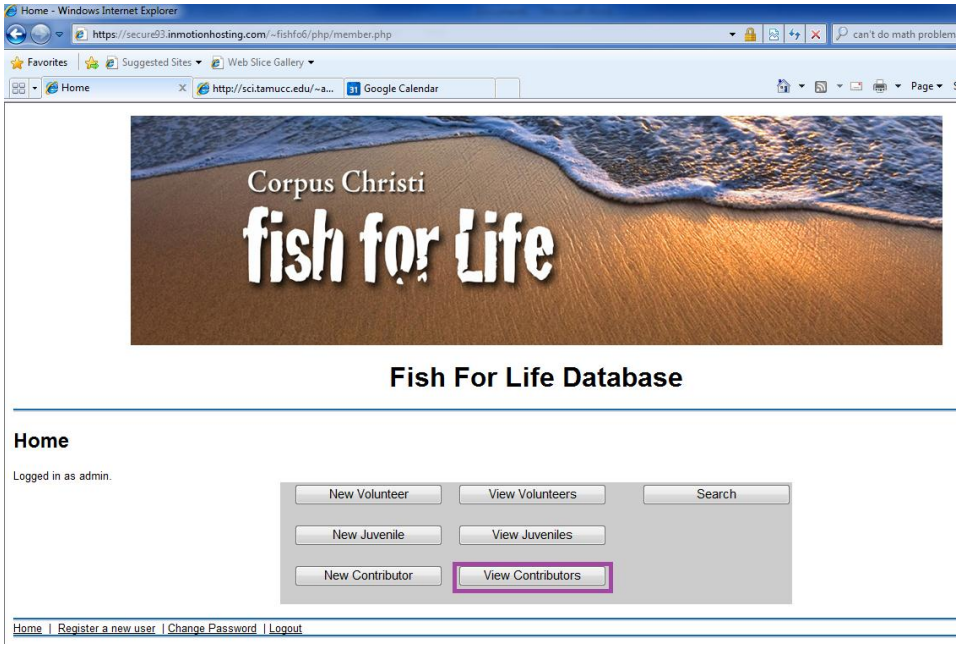
3. Click the edit button next to the contributor you want to edit

O. Delete contributor

1. Login to database



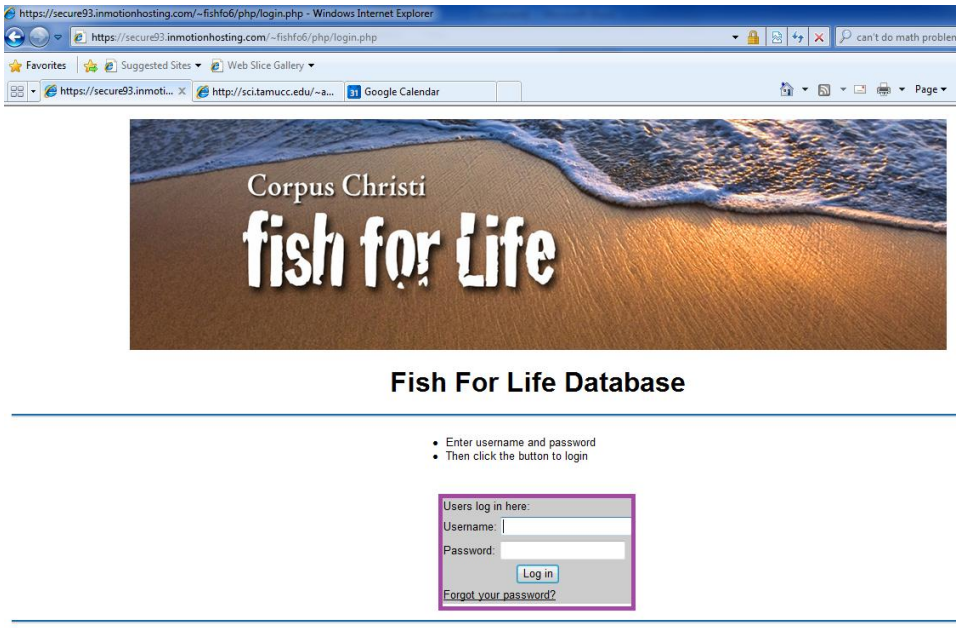
2. Click on View Contributor



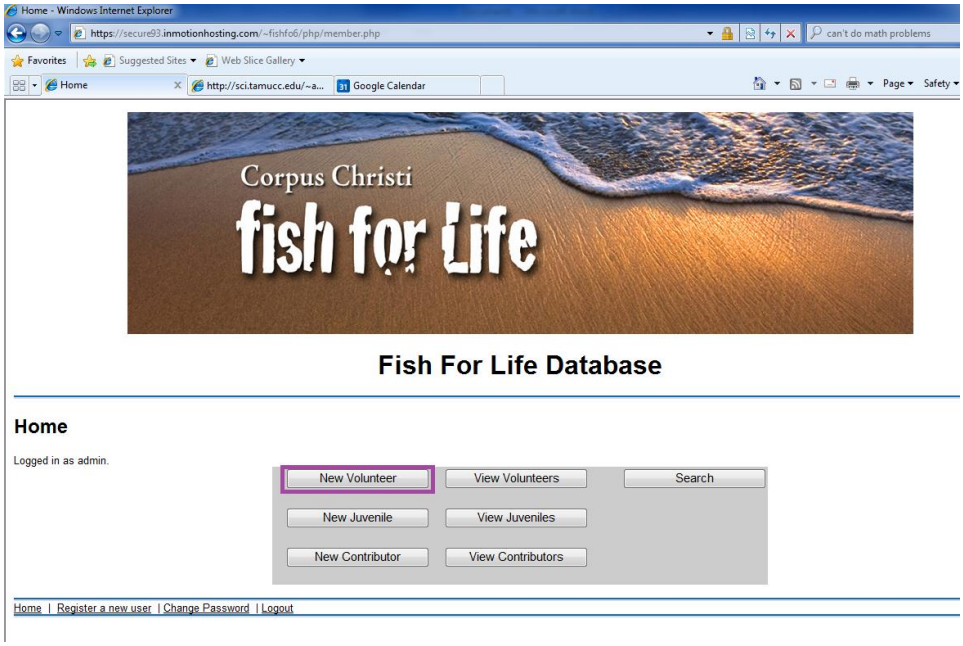
3. Click the delete button next to the contributor you want to delete

P. Add volunteer

1. Login to database



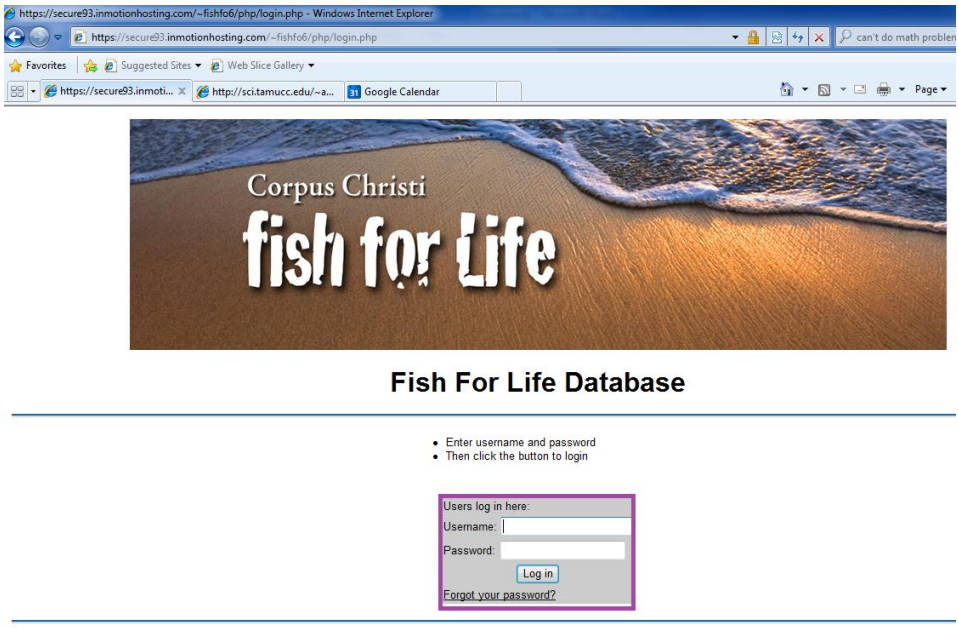
2. Click on New Volunteer



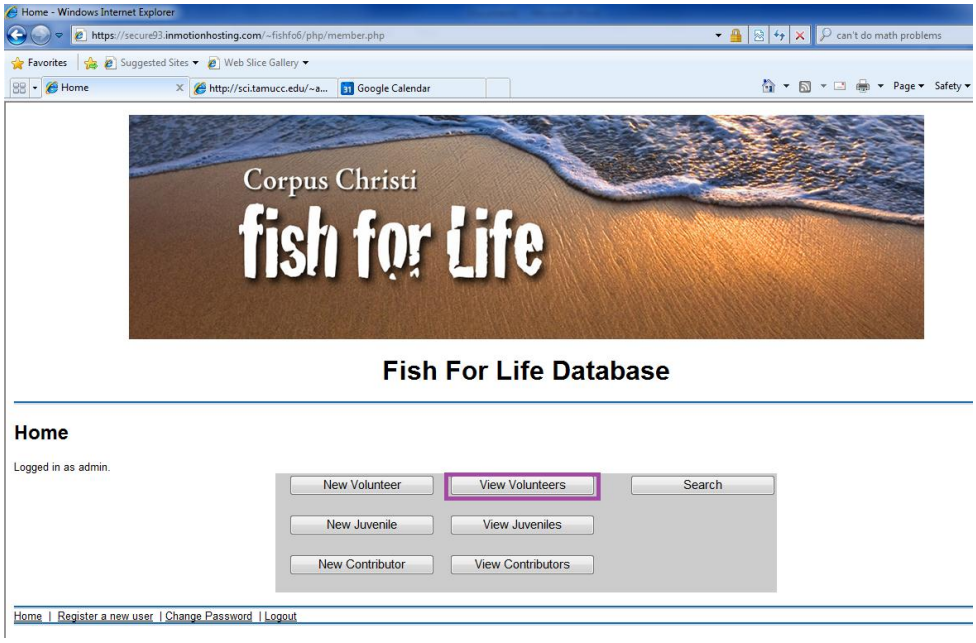
3. Fill out the form then click submit

Q. View volunteer

1. Login to database



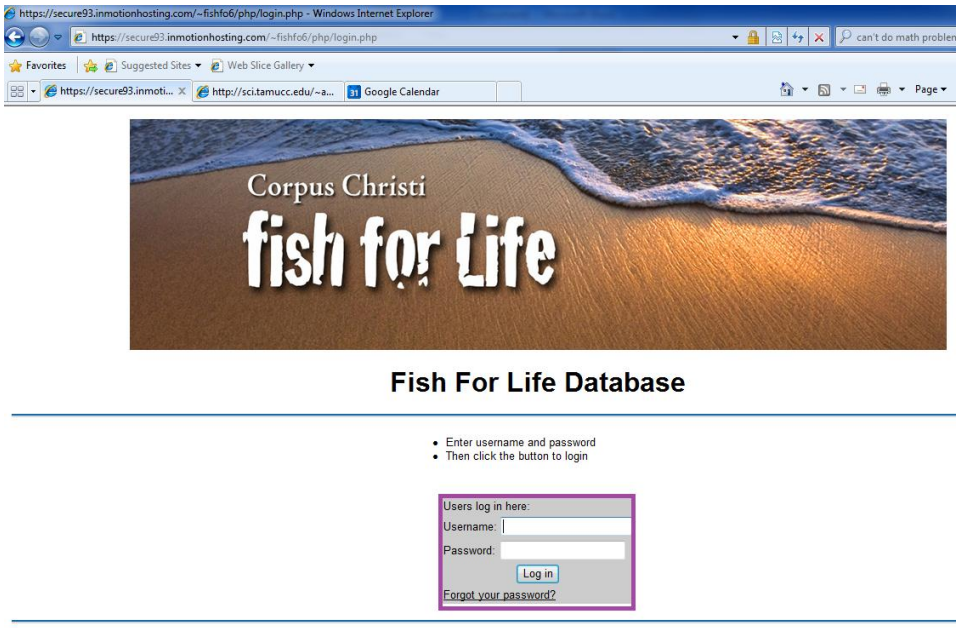
2. Click on View Volunteer



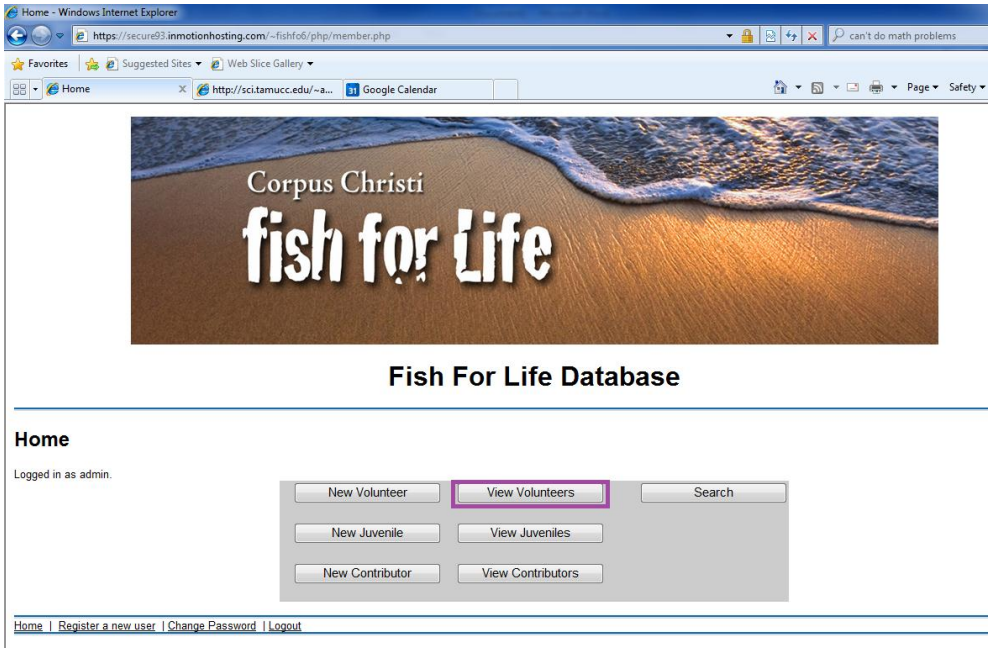
3. List of volunteers is shown

R. Edit volunteer

1. Login to database



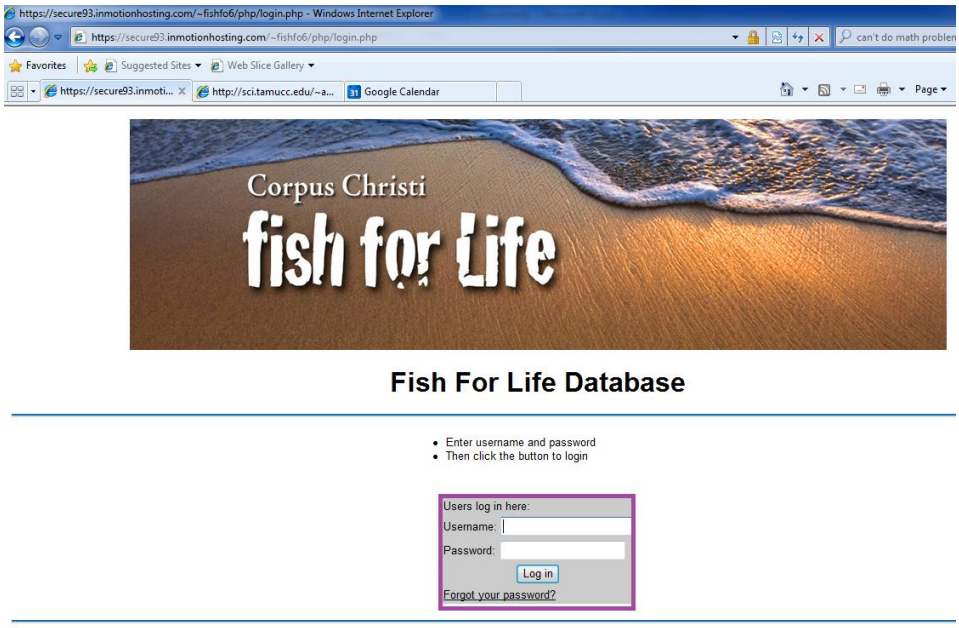
2. Click on View Volunteer



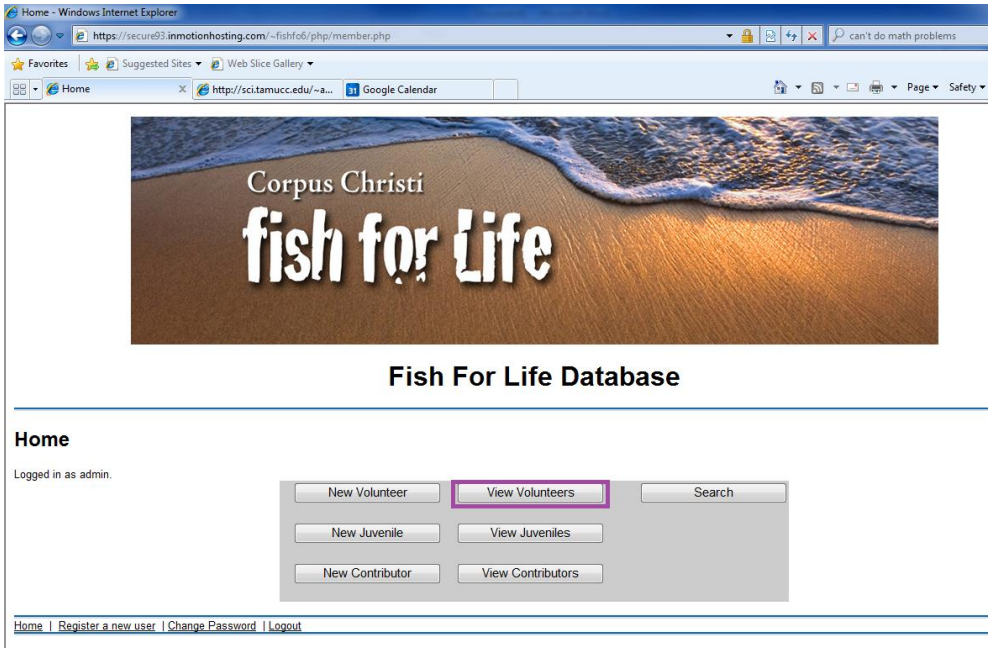
3. Click the edit button next to the volunteer you want to delete

S. Delete volunteer

1. Login to database



2. Click on View Volunteer



3. Click the edit button next to the volunteer you want to delete

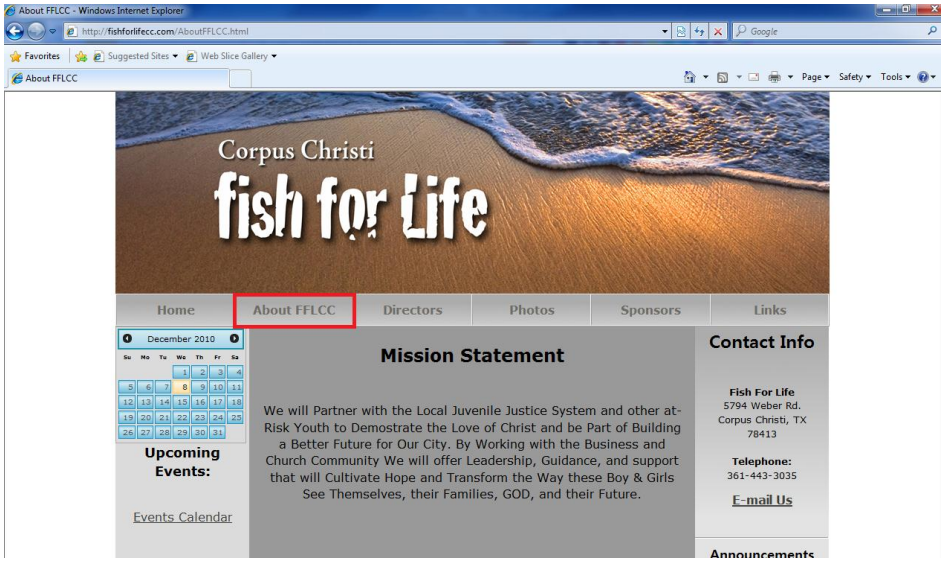
D. User Manual

A. How to access main page

1. Open internet browser
2. Go to www.fishforlifecc.com

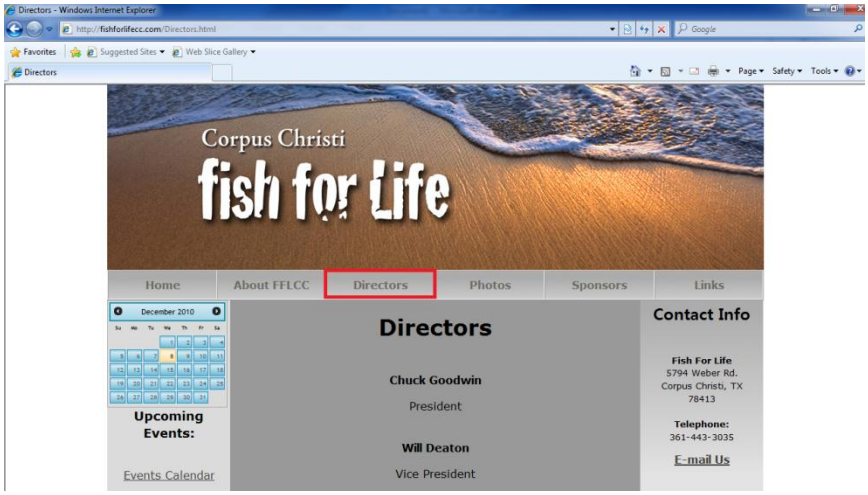
B. How to access About FFLCC

1. Click the About FFLCC link on main page



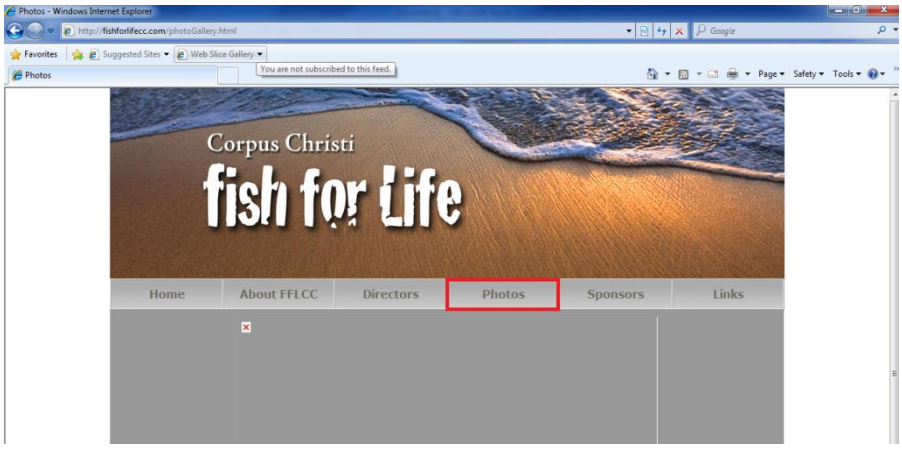
C. How to access Directors

1. Click the Directors link on main page



D. How to access Photos

1. Click the Photos link on main page

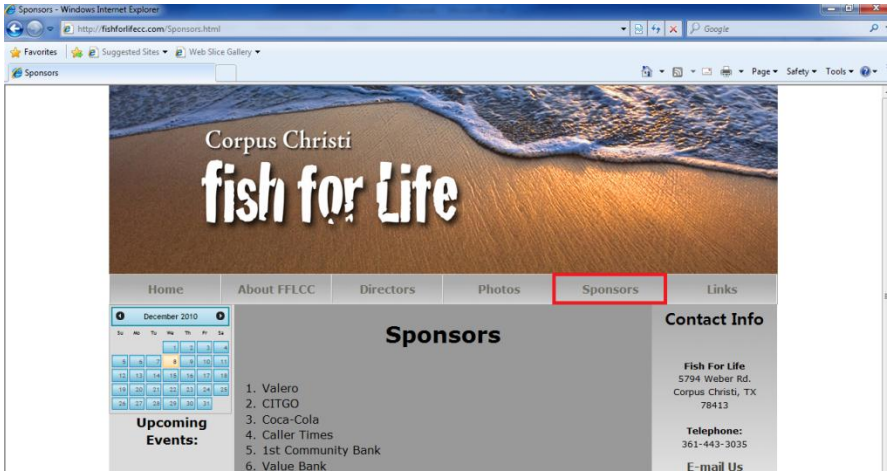


E. How to access Different Albums

1. Click the Picasa link on the bottom of the slide show
2. Choose the album you want to look at

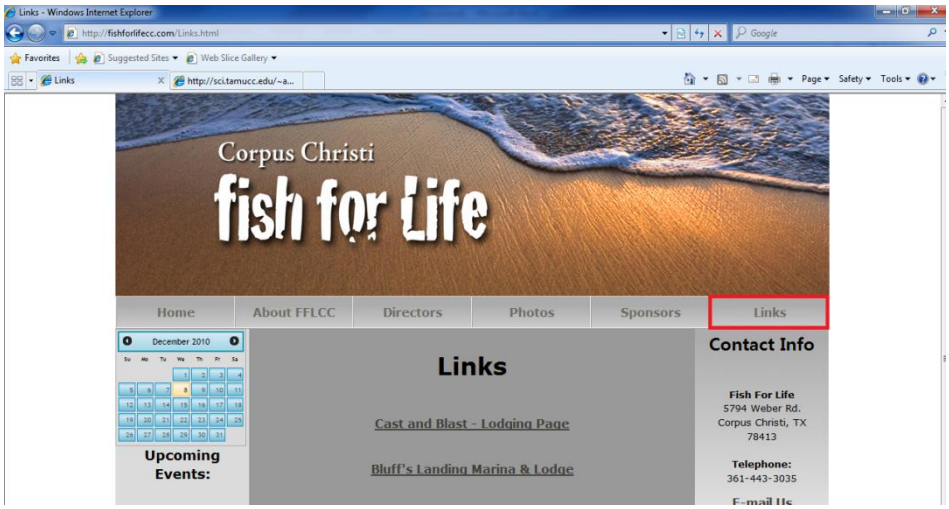
F. How to access Sponsors

1. Click on Sponsors link on main page



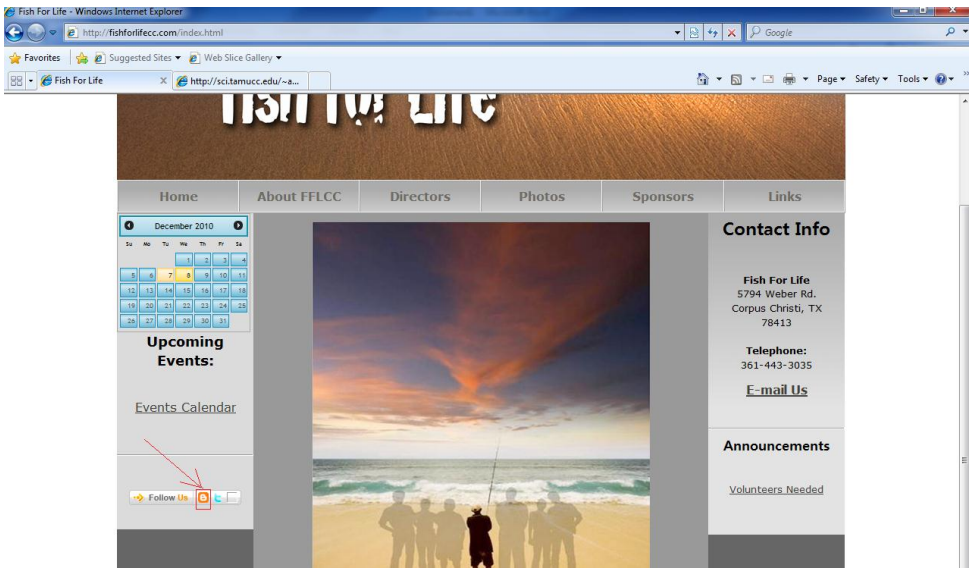
G. How to access Links

1. Click on Links link on main page



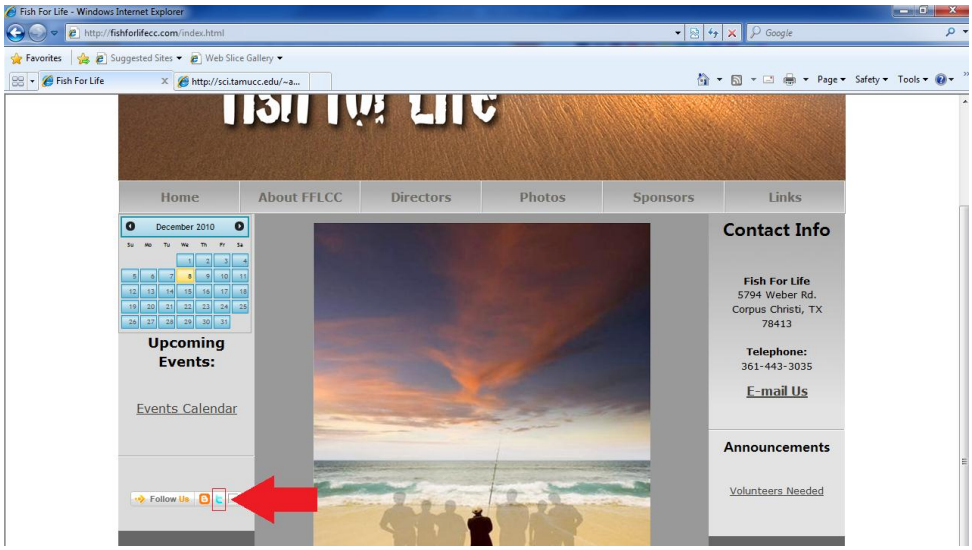
H. How to access Blog

1. Click on the blogger icon on the left side bar from the main page



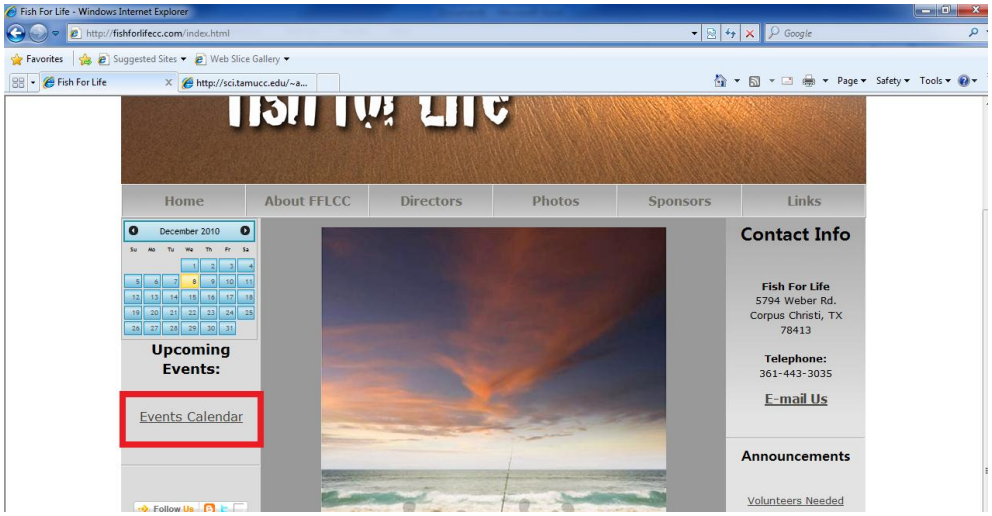
I. How to access Twitter

1. Click the twitter icon on the left side bar from the main page



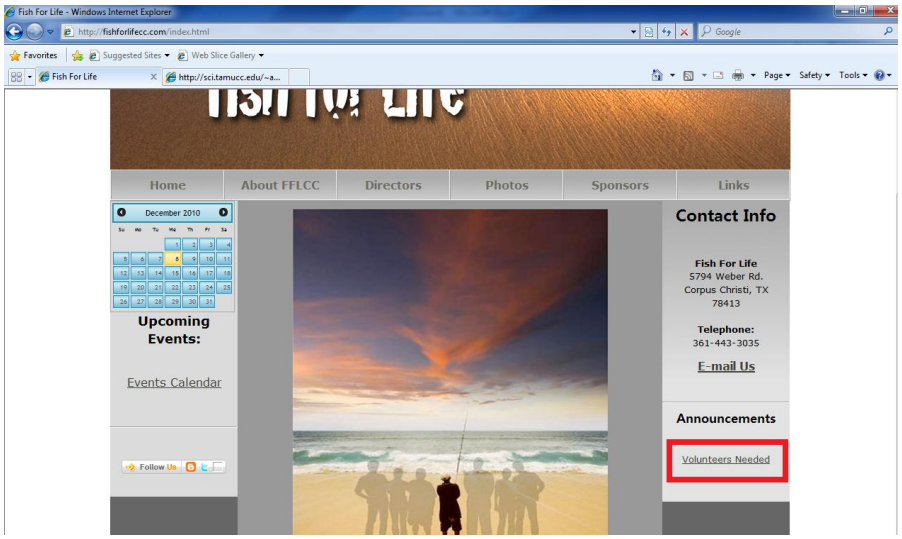
J. How to access Event calendar

1. Click on the event calendar link on the left side bar



K. How to access Volunteer Form

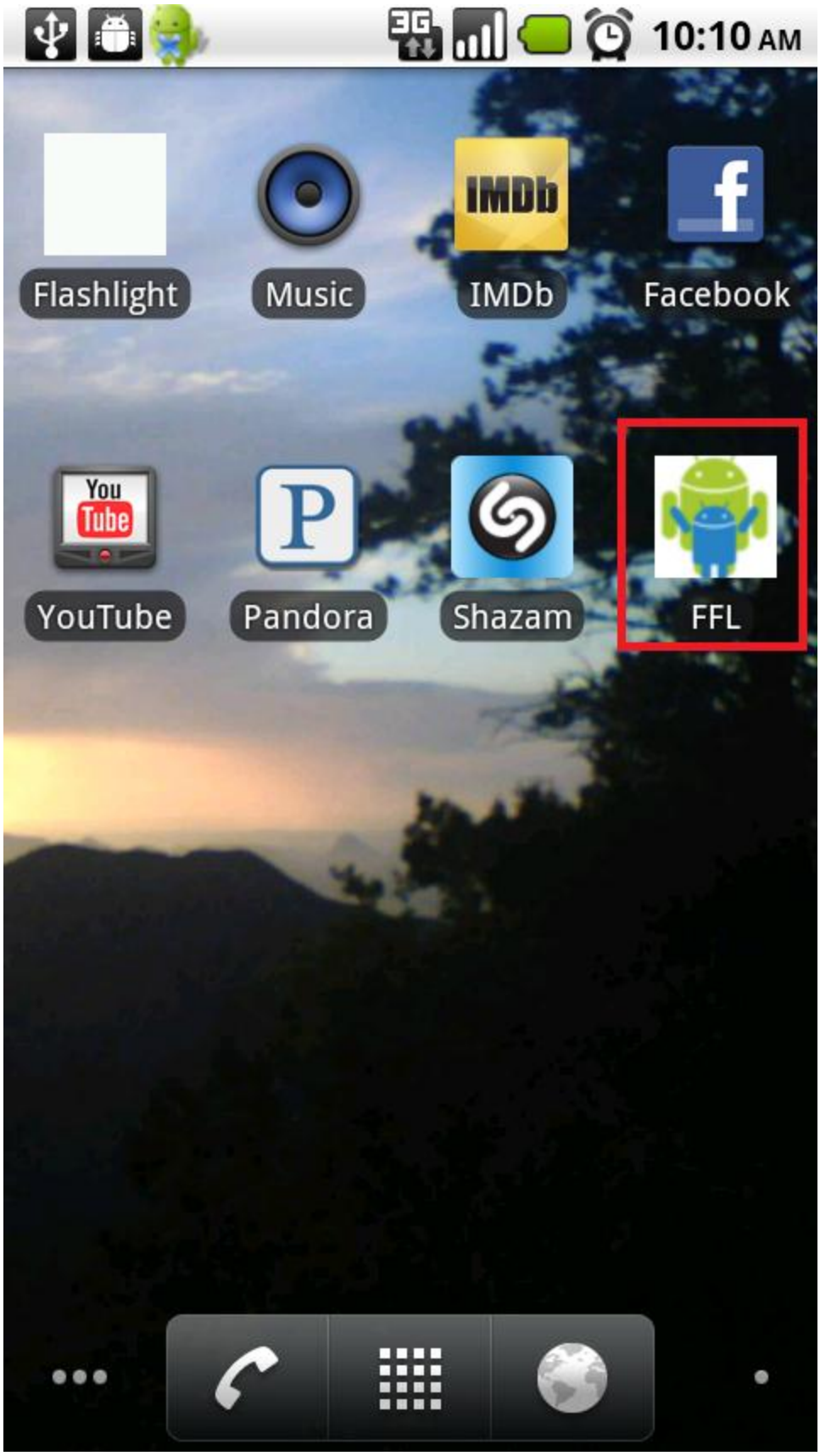
1. Click on the “Volunteers Needed” link on the right side bar



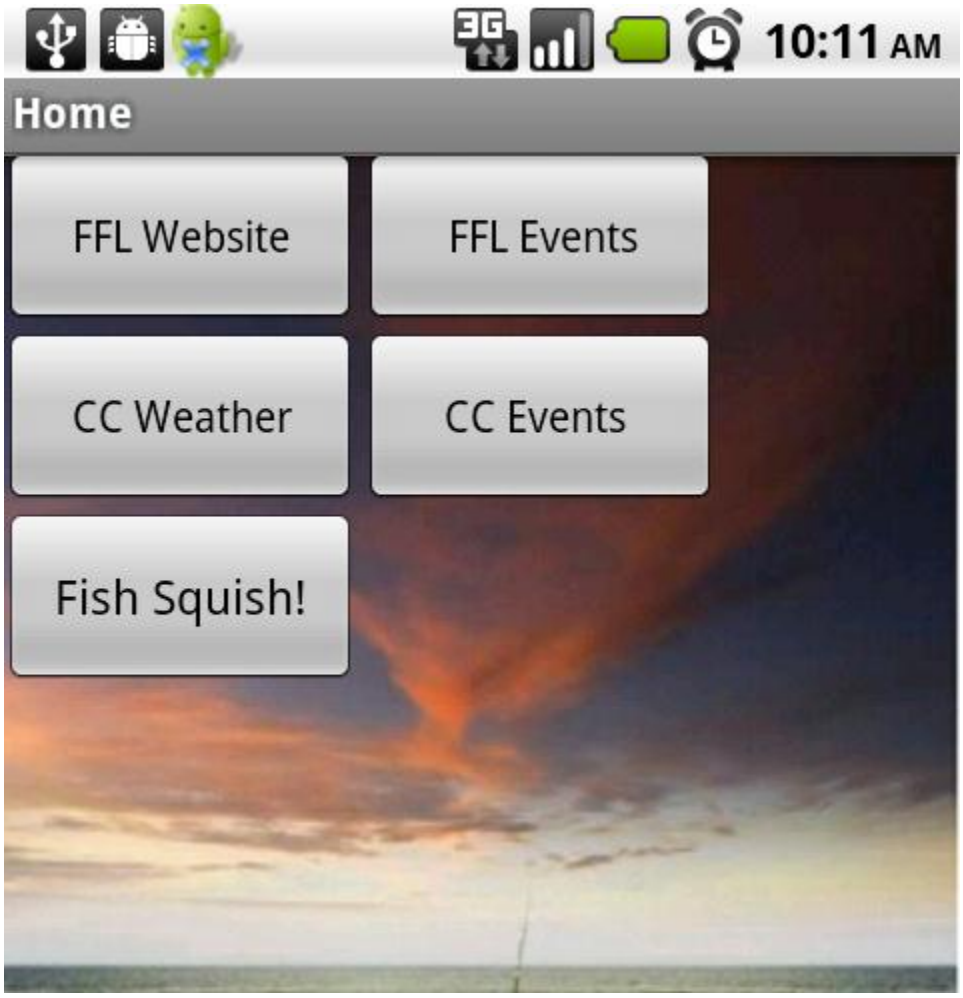
L. How to access Android application

1. Go to main menu

2. Find FFL icon

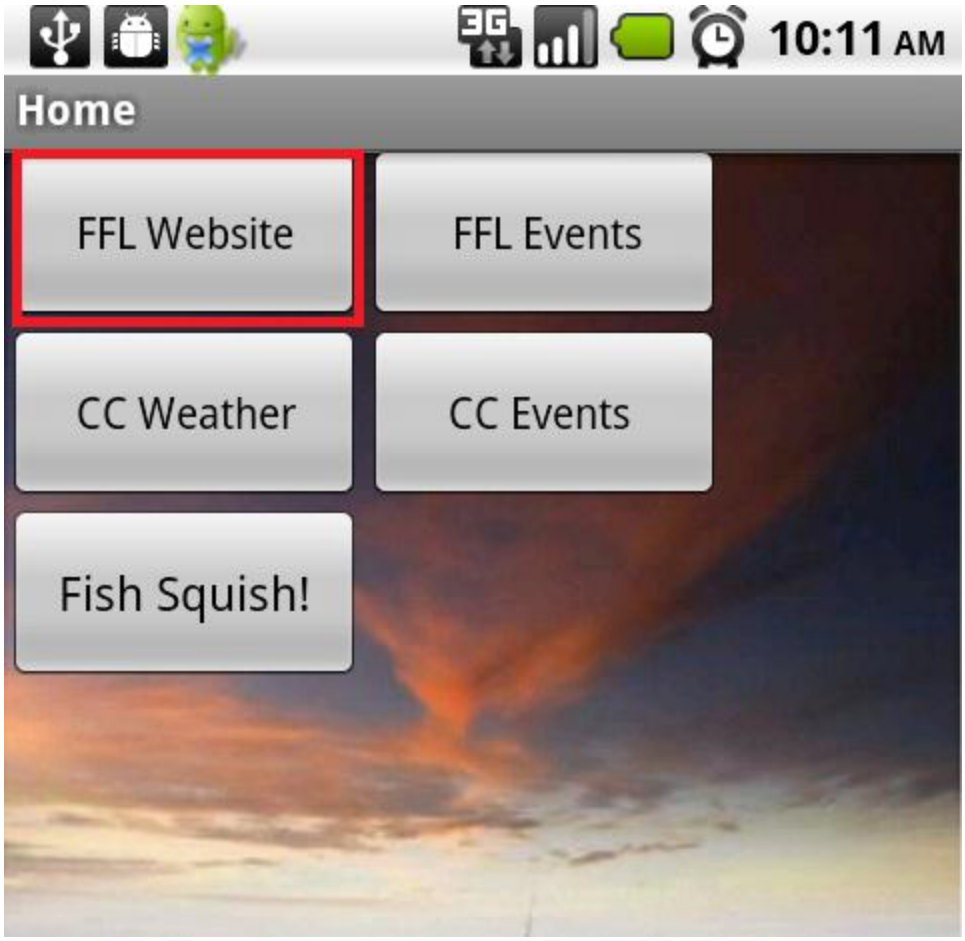

10:10 AM
Flashlight
Music
IMDb
Facebook
YouTube
Pandora
Shazam
FFL

3. Tap on it to get to the FFL application main screen



M. How to Access fishforlifecc.com on Android application

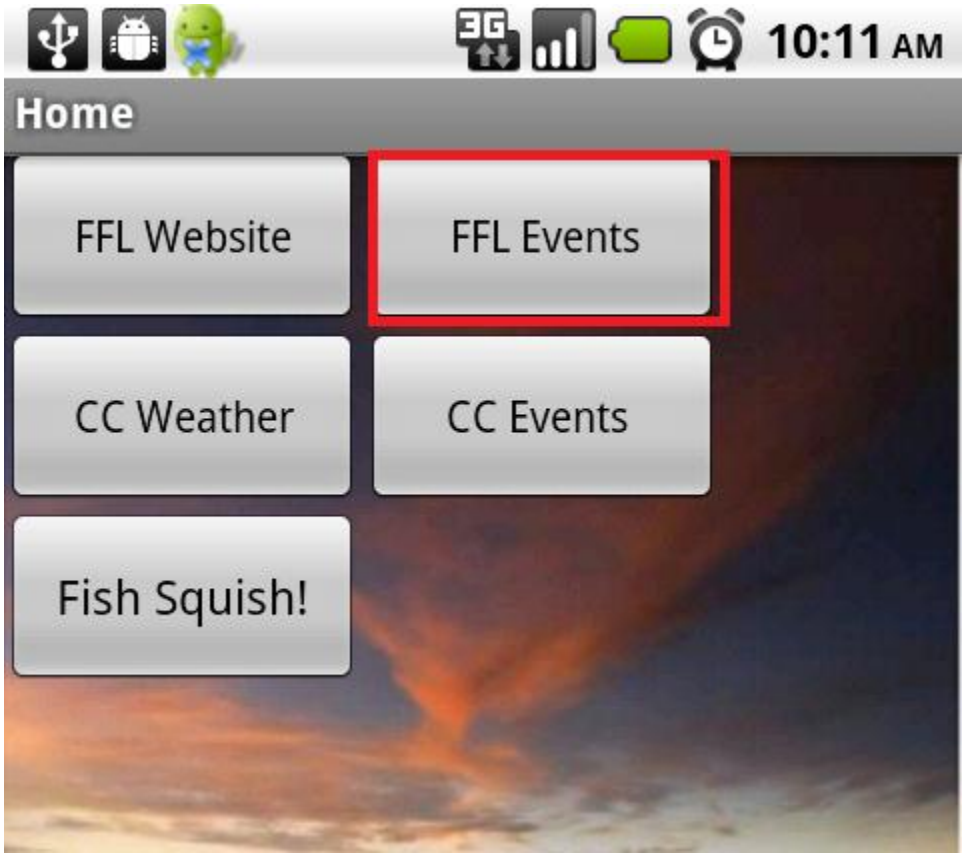
1. Open application
2. Tap on FFL Website button


10:11 AM
Home
FFL Website
FFL Events
CC Weather
CC Events
Fish Squish!


10:12 AM
http://www.fishforlifecc....
Corpus Christi
fish for Life
Home
About FFLCC
Directors
Photos
Sponsors
Links
Upcoming Events:
Events Calendar
fish for Life
transforming lives
Contact Info
Fish For Life
5794 Weber Rd.
Corpus Christi, TX 78413
Telephone:
361-443-3035
E-mail Us
Announcements
Volunteers Needed
Site Administration
Created by: Fish For Life CC 2010

N. How to Access fish for life calendar on Android application

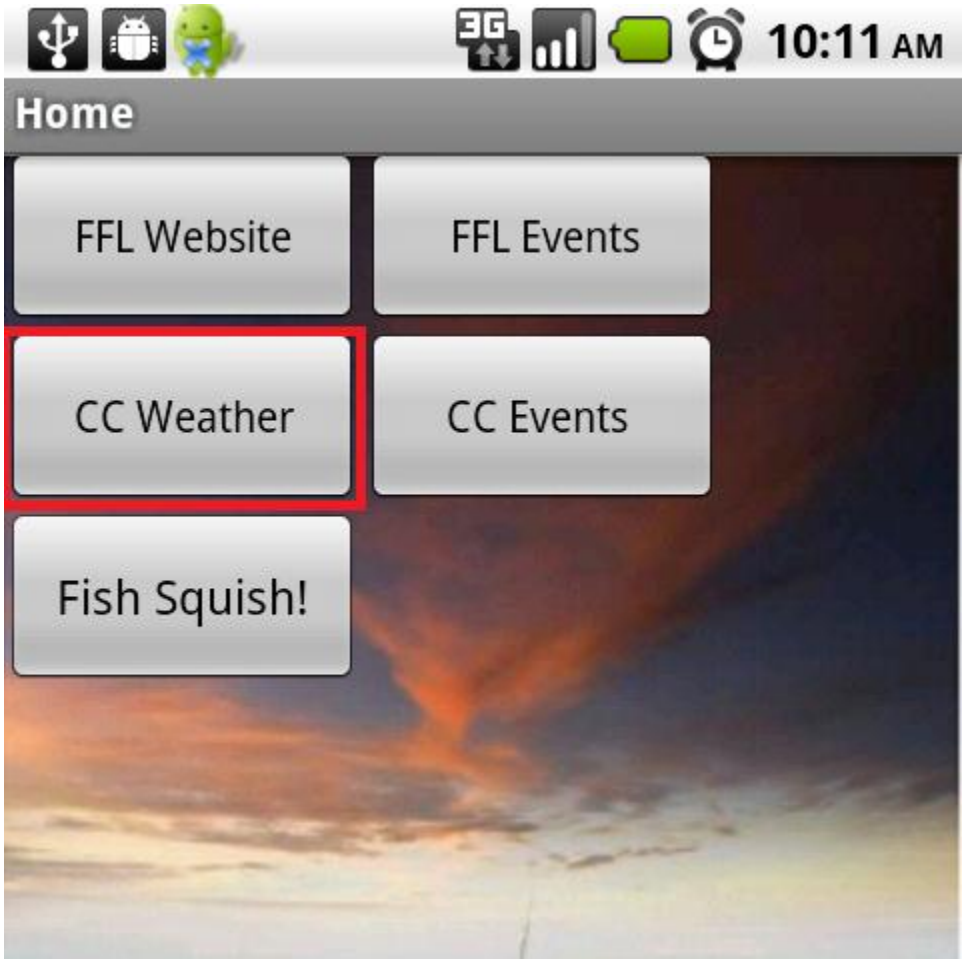
1. Open application
2. Tap on FFL Events button




10:15 AM
http://fishforlifecc.com/...
Corpus Christi
fish for Life
Home
About FFLCC
Directors
Photos
Sponsors
Links
Dec 5 - 11 2010
Print
Site Administration
Created by: Fish For Life CC 2010

O. How to Access CC weather on Android application

1. Open application
2. Tap on CC Weather button



topix Local: Corpus Christi, TX Change

Home **Corpus Christi Weather**

Current Conditions

Updated 50 min ago

54°F
Partly Sunny
64°F | 56°F

Feels like: 59°F
Humidity: 82%
Wind: 0 mph CLM
Visibility: 10 mi

Extended Forecast

Tomorrow

Mostly Sunny
71°F | 59°F

Next 5 days

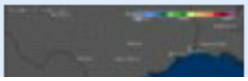
Next 10 Days

Powered by AccuWeather.com

Weather Maps

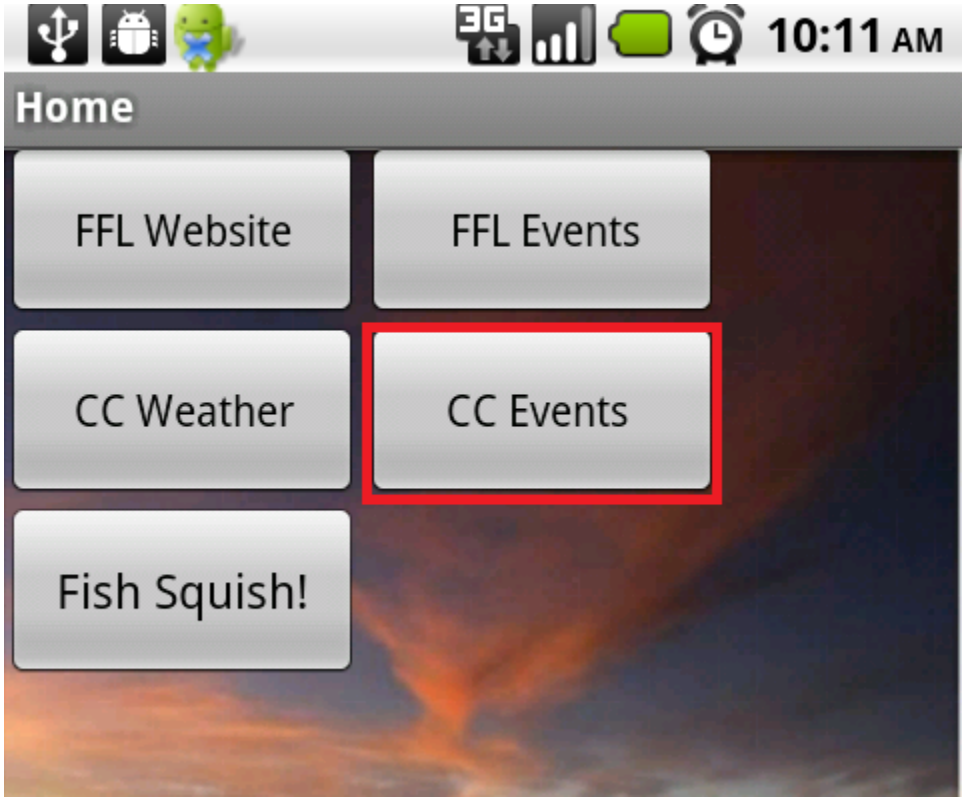
W .Texas Radar

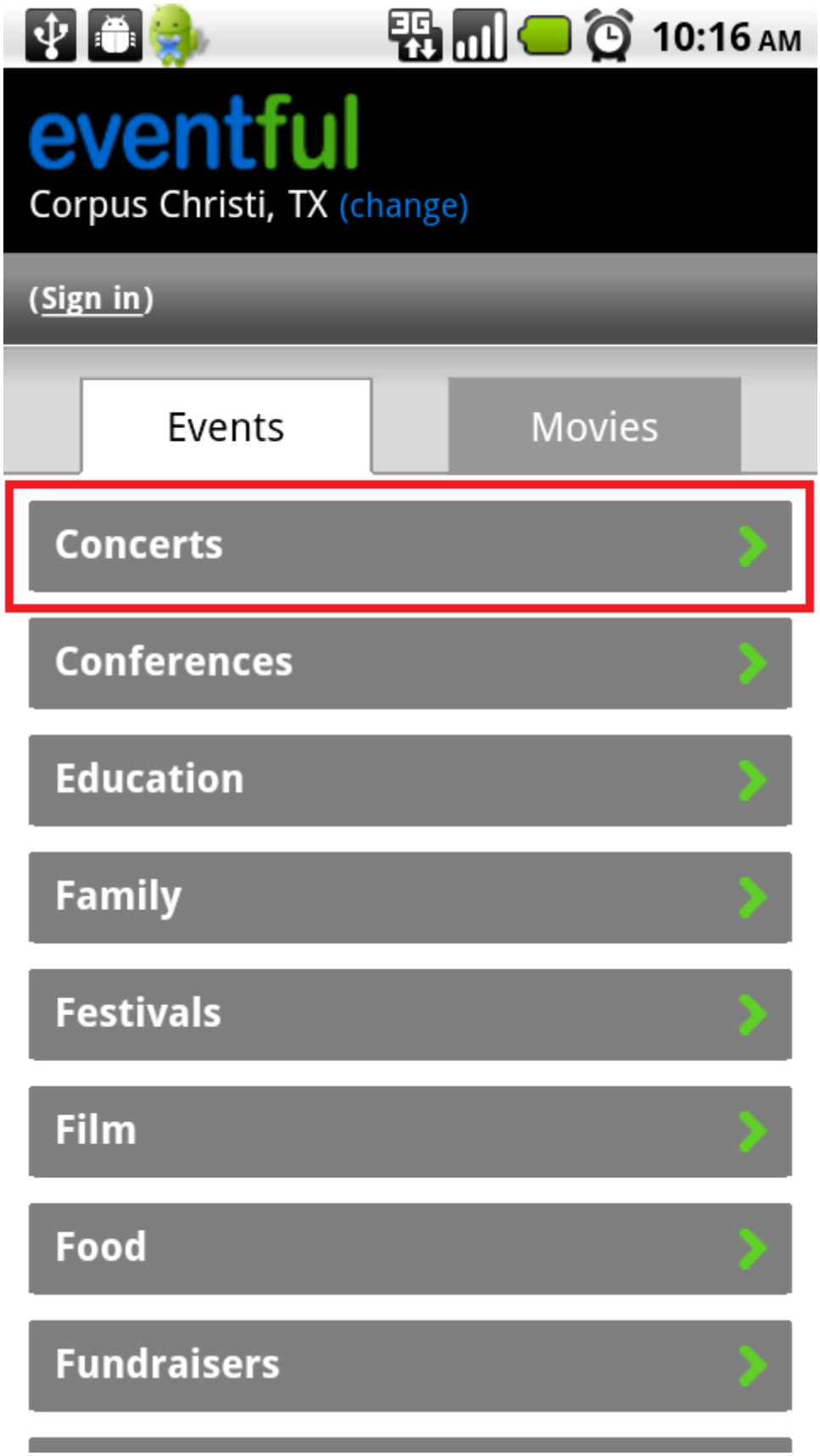
S. Texas Radar

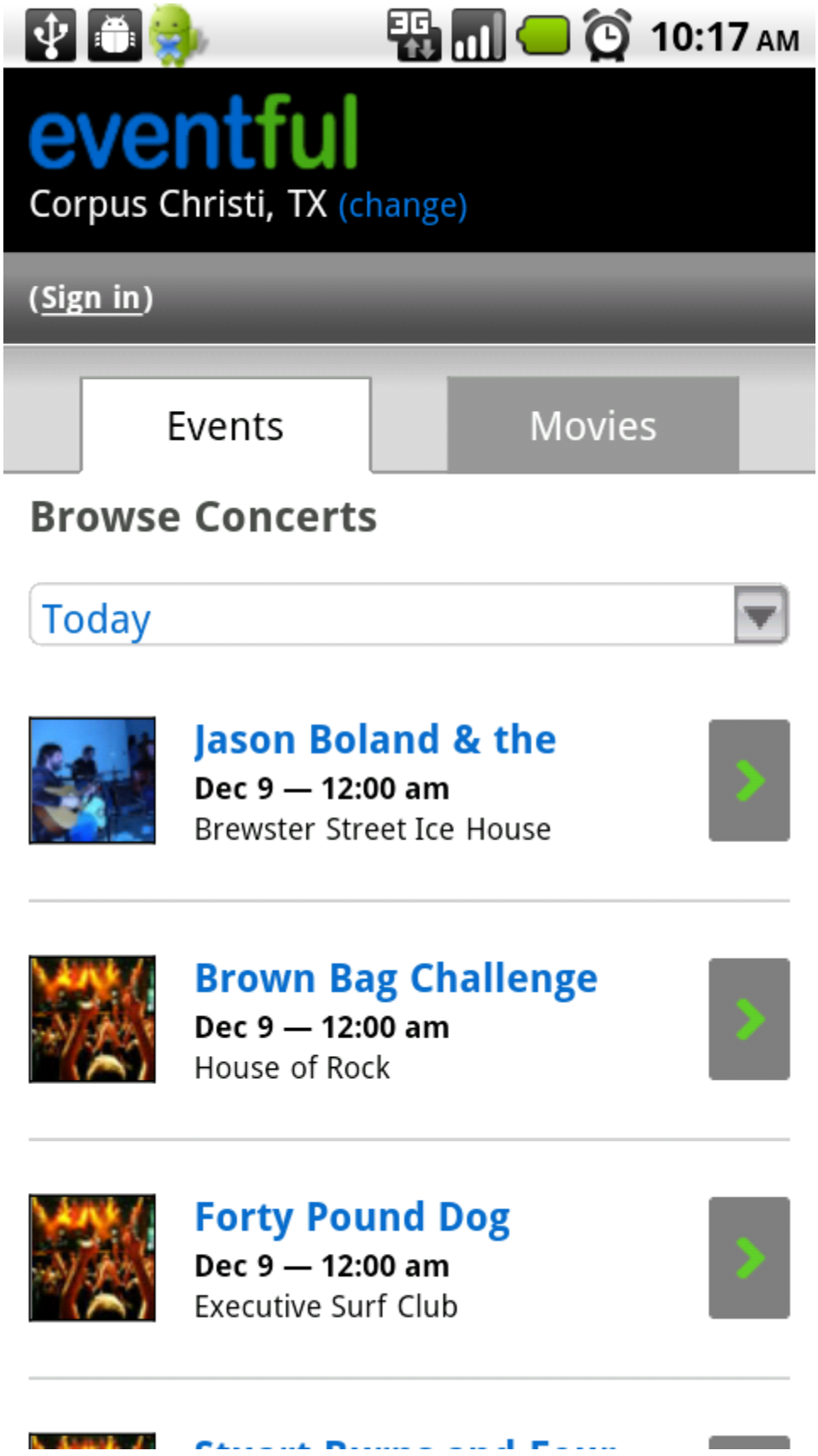


P. How to Access CC events on Android application

1. Open application
2. Tap on CC Events button

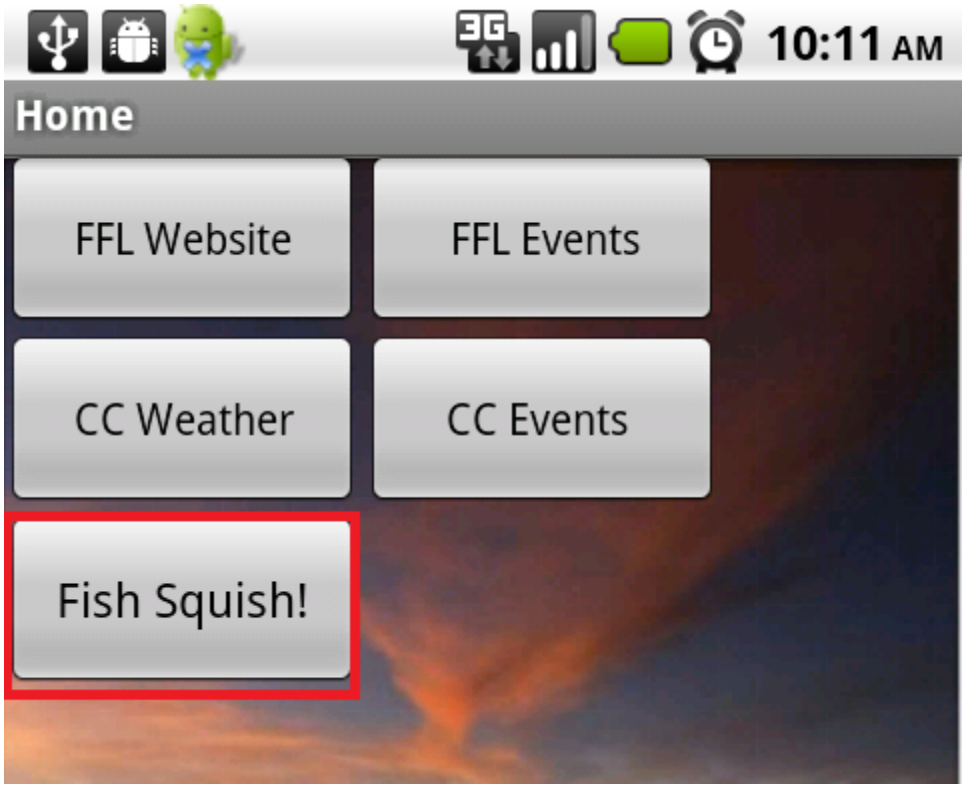


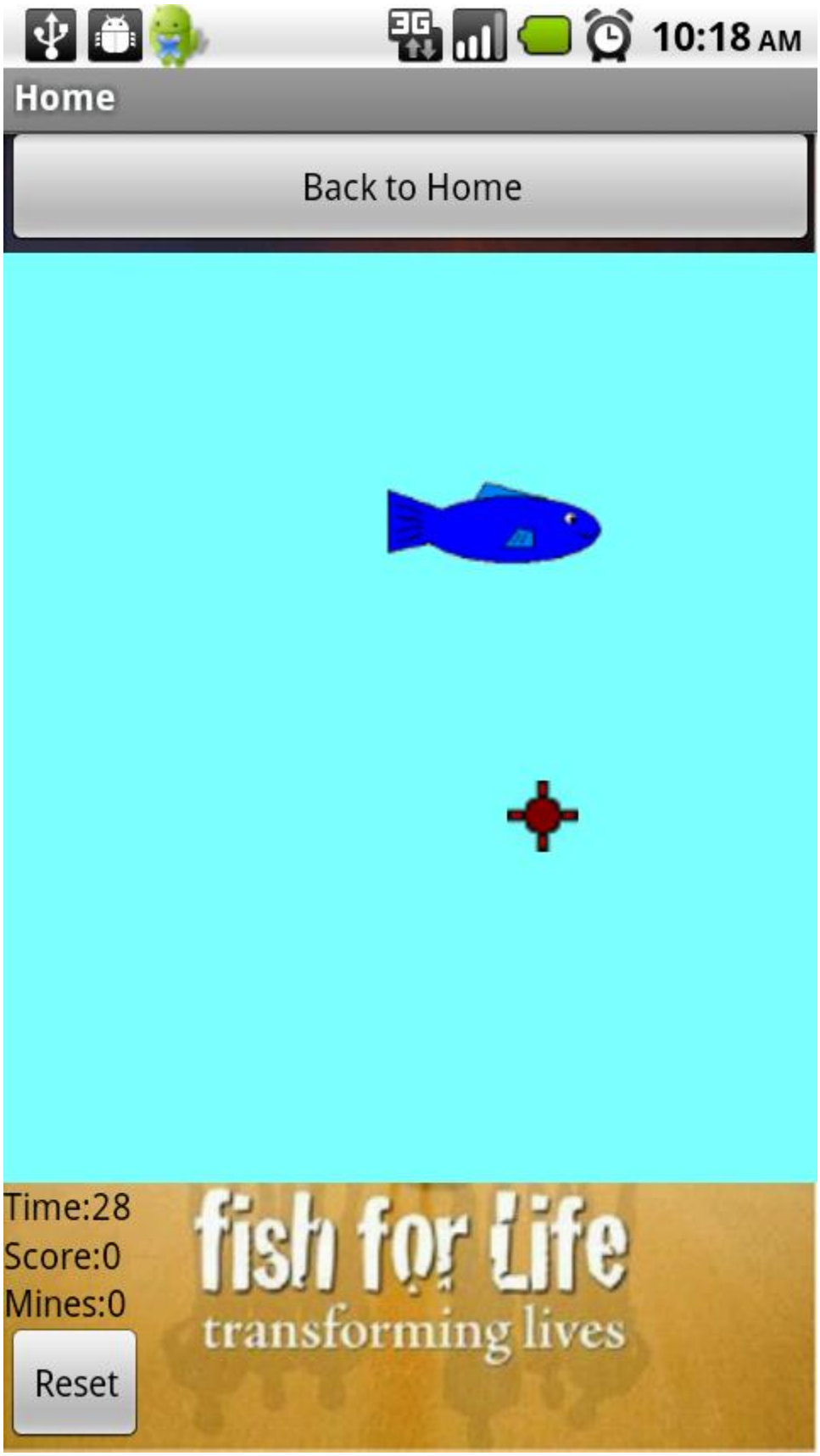

10:16 AM
eventful
Corpus Christi, TX (change)
(Sign in)
Events
Movies
Concerts
Conferences
Education
Family
Festivals
Film
Food
Fundraisers

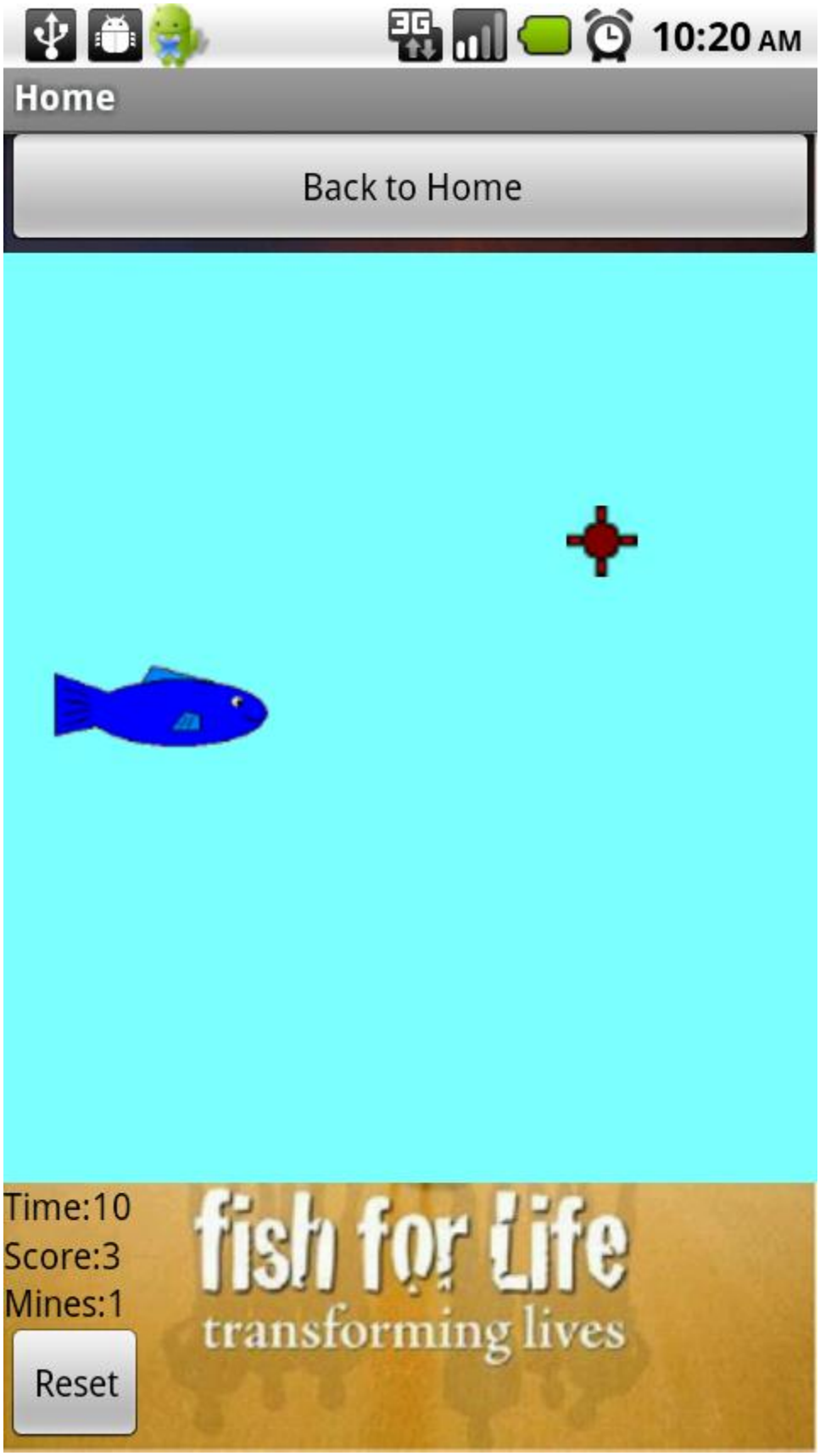

10:17 AM
eventful
Corpus Christi, TX (change)
(Sign in)
Events
Movies
Browse Concerts
Today
Jason Boland & the
Dec 9 — 12:00 am
Brewster Street Ice House
Brown Bag Challenge
Dec 9 — 12:00 am
House of Rock
Forty Pound Dog
Dec 9 — 12:00 am
Executive Surf Club

Q. How to Access Fish Squish on Android application

1. Open application
2. Tap on Fish Squish button


10:11 AM
Home
FFL Website
FFL Events
CC Weather
CC Events
Fish Squish!


10:18 AM
Home
Back to Home
Time:28
Score:0
Mines:0
Reset
fish for Life
transforming lives


10:20 AM
Home
Back to Home
Time:10
Score:3
Mines:1
Reset
fish for Life
transforming lives

E. Recommended Future Work

For the future work, we recommend using the smartphone application to connect to a live database that can give fishing information, like wind speed, water temperature, etc.

We also would want to add more database features that would give more options for the different users and administrator. For example, we can have a member account be able to only view contributors, but they can't view the juvenile's information.

We used many third party applications like Google calendar, Picasa, and Blogger. It would be nice to have the tools built for the website and make it all in-house software, instead of embedded applications.