Requirements Specification

Requested by: Dr. Eric Breimer
Web Master & Assistant Professor
Department of Computer Science
Siena College

Dr. Tim Lederman
Professor
Department of Computer Science
Siena College

Alumni Spotlight Web Systems (ASWS)

Initrode Solutions

Prepared by: Anthony Angelucci
Charles Feltes
Elise Hearn
David Luck
Christopher McConnell

October 24, 2006
Alumni Spotlight Web Systems
Requirements Specification

Table of Contents

Section 1: Product Overview and Summary ................................................. 1
Section 2: Development, Operating and Maintenance Environments .......... 1
Section 3: External Interfaces and Data Flows ............................................. 2

External Interface Prototypes: ................................................................. 2
  Sign On Screen .................................................................................. 2
  Registration Screen ......................................................................... 3
  Submit Screen ................................................................................ 4
  Confirmation E-mail ....................................................................... 4
Thank you for registering with the Siena College Alumni Spotlight Web System. Please click here to activate your account................................................................. 4
Please remember, this email will be used as your account ID. If you loose, or forget your password, you can retrieve it by clicking the “forgotten password” link. ................................................................. 4
Thank you again from all of us at Siena College......................................... 4
  Forgot Password Screen .................................................................. 4
  Home/My Account Screen ............................................................... 5
  Edit Profile Screen ......................................................................... 6
  Search Screen .............................................................................. 7
  Results Screen ............................................................................ 7
  Contact Us Screen ....................................................................... 8
  Photo Gallery Screen .................................................................. 9
  New Photo Album Screen ............................................................. 9
  Edit Album Screen .................................................................... 10
  Photo Confirmation Screens ......................................................... 11
  Administrator Welcome Screen ...................................................... 11
  Profile Review Screen ................................................................ 12
  Accept Profile Screen ................................................................. 13
  Accept/Deny Changes Screen ...................................................... 14
  Deny Profile Screen ................................................................... 14

Data Flow Diagrams ............................................................................. 15
  Context Diagram .......................................................................... 15
  Level 0 Diagram ......................................................................... 16
  Level 1 Diagram ......................................................................... 17
  Level 2 Diagram ......................................................................... 18
  Level 2.3 Diagram .................................................................... 19
  Level 3 Diagram ....................................................................... 20

Section 4: Functional Requirements ...................................................... 21
  Use Case Scenarios ...................................................................... 21
  Functional Requirements Inventory .............................................. 21
  Non-Functional Requirements Inventory ....................................... 22

Section 5: Performance Requirements .................................................. 22

Section 6: Exception Handling ............................................................... 23

Section 7: Early Subsets and Implementation Priorities ............................ 23

Section 8: Foreseeable Modifications and Enhancements .......................... 23

Section 9: Acceptance Criteria .............................................................. 25
Section 1: Product Overview and Summary

As the internet continues to grow and reach out to more people, web designers have become essential in the task of reaching multiple users at one time. Companies have continuously increased expectations, and the average web user has begun to expect more. Studies have shown that a person is more likely to view and remember a website if that website seems more personal to them. Using this theory, Initrode Solutions will utilize important aspects of user interface design to create a personal Alumni Spotlight Web Systems, which will be integrated into the redesign of the Siena College website. With the use of the Alumni Spotlight Web Systems and the redesign of the Siena College website, Dr. Eric Breimer and the Computer Science Department are hoping to create a more personal feel for users and viewers of the website. The objective is to create a webpage similar to that of www.Facebook.com in the sense that a user will be able to register via a valid email address, and create their user profile. The main goal is to create a strong Siena community that consists of alumni profiles which will show prospective students, parents, and other alumni what they have accomplished with their degree. The profiles and alumni photos will act to create a personal feeling about Siena that will highlight the fact that Siena is not just a college but rather that it is a community and that great success can be obtained with a degree from Siena.

Section 2: Development, Operating and Maintenance Environments

The Alumni Spotlight Web Systems will be developed at Siena College in the Software Engineering Laboratory. The Initrode Solutions team will be using a Dell computer with a Windows XP Service Pack 2 operating system along with an I-Mac, which uses a Macintosh Operating System X 10.4.7. The Alumni Spotlight Web Systems will be developed to run on the three major operating systems: Windows, Macintosh, and Linux. The website will be hosted on an Apache web server with access to an Oraserv database server. The interface will be developed using a CMS (Content Management System) called Drupal. The system will be accessible anywhere with internet access on the major browsers including Internet Explorer 6.0, Netscape Navigator 7.1, Mozilla Firefox 1.5.07 and Safari 2.0.4. The web administrator at Siena College, who will be able to edit and maintain from any personal computer using any operating system listed above, or variations of them, will maintain the system.
Section 3: External Interfaces and Data Flows

External Interface Prototypes:
Sign On Screen

The purpose of this screen is to allow any registered user to gain access to their profile as well as giving unregistered users the opportunity join the community. This screen will allow existing users to log in by entering their email address and password. The user must enter the same e-mail address that they used when registering for an account. This e-mail address acts as a unique username for logon purposes. The user must also enter their correct password in order to have a successful login. The user creates their individual password when they register. After clicking Login, (if the proper e-mail and password was entered) the user will be directed to their profile. If an incorrect e-mail address or password was entered, the logon will be deemed unsuccessful and this page will be reloaded with a small note stating that it was unable to accept the login request due to incorrect data. Clicking Register will direct the user to the registration screen.

The forgotten password link will direct the user to a screen in which they can have their password sent to their email address. This sign on screen will be accessed through a link located on the Computer Science Department home page where the spotlighted profiles will be displayed.
Registration Screen

The purpose of this screen is to allow new users to join the community. This screen is where a new user will be registering for an account. The user’s email address they enter will serve as the user name, or account ID for the web system. The user will then select a password a minimum of 6 characters in length and contain at least one number. The user must then select a security question and give an answer to decrease the amount of possible security breaches when sending out password information. This security question must be answered correctly by the user in order for them to obtain their forgotten password. Upon successful submission, the user will be directed to a confirmation screen. If the submission is unsuccessful, the screen will be reloaded with a note stating the reason for the error. This screen will be accessed from the sign on screen and possibly from other locations undetermined at this time.
Submit Screen

Thank you for registering for the Alumni Spotlight Web System. You will receive an e-mail shortly with a link to confirm your registration.

This screen will open in a new window thanking the user for registering with the Alumni Spotlight Web Systems. The purpose of this screen is to tell the user that they will be receiving an e-mail used to confirm the registration. It will only be accessed by users registering for an account.

Confirmation E-mail

Thank you for registering with the Siena College Alumni Spotlight Web System. Please click here to activate your account.

Please remember, this email will be used as your account ID. If you lose, or forget your password, you can retrieve it by clicking the “forgotten password” link.

Thank you again from all of us at Siena College.

The purpose of this e-mail is to tell the user that he/she has been approved for an account and that they are now able to log in to the system. This e-mail is a confirmation of a successful registration. This e-mail will only be sent to users that have just registered for a new account. It has only one link that will direct the user to the sign on screen.

Forgot Password Screen

Enter your e-mail:  

Please select your security question:  

Enter your security question answer:  

Submit

Note: Your Password will be sent to your email account upon submission.

The purpose of this screen is to give the user the ability to recover a lost or forgotten password. This screen contains three fields that must be filled in, the e-mail used to register and the security question and answer. Upon submission, if the information that is given is valid, the user will be sent an e-mail containing their password. If the information is invalid, the screen will be reloaded with a note saying the reason for error. This screen will only be accessed through the sign on screen.
Home/My Account Screen

The users will see this screen once they successfully sign in to the system. After the user first registers, the profile will be blank. This screen consists of facts about the user including their careers, personal information, and their college life. In the center of the page will be a picture of the user that he/she chooses. From this screen, the user has access to all of the features, which the system provides to registered users.
The purpose of this page is to allow the user to change any information in their profile. This page will be accessed from the user’s Home/My Account screen. This screen contains information about the user, only some of which is required. The required fields are labeled with an asterisk. Upon submission, if no errors are found, the user will be redirected to their Home/My Account screen where the changes to their profile will be updated. If errors are found, the screen will be reloaded with a reason for the error.
Search Screen

Using this screen, registered users will be able to search for other members in the community. The user will search for other users by entering any of the following information (regarding the user they are searching for): name, e-mail address, or graduation year. The more information the user enters, the more specific the results that are returned will be. This screen will be accessed by clicking on the Search link located on the users Home/My Account Screen.

Results Screen

This screen will be shown after the user enters the search criteria for another user and clicks on the Search button on the Search Screen. This screen will provide a picture of the user along with their name, e-mail address, and their graduation year. If the user clicks on the other user’s picture, they will be redirected to that user’s profile.
Contact Us Screen

This screen will be accessed when the user clicks the Contact Us link on their Home/My Account Screen. This feature is used in order to allow the user to ask the administrator a question or just leave the administrator a comment. When the user hits the Submit button, an e-mail will be sent to the administrator.
Photo Gallery Screen

This screen is a view of the users’ current photos and photo albums and is accessed by clicking on the Photo Gallery link on the users Home/My Account Screen. The user can view details about each album such as the number of pictures in it and the date it was created. The user also has the option of adding more albums. When the user clicks the Add Album button, the New Photo Album Screen appears.

New Photo Album Screen

This screen is used to create a new photo album. The user can enter the name of the album, where the pictures were taken, and a description of the album. The user will also have several privacy options for their album. If they choose “Everyone”, anybody who has access to the community system will be able to view their pictures. If they choose “Administrator”, the pictures will only be viewable by the user themselves and the administrator. The community will not have access to view these pictures. Lastly, if they choose “Private”, the pictures will only be visible by the user themselves. The administrator and the community will not have access to these pictures.
Edit Album Screen

This screen appears when the user wants to edit their albums and can be accessed by clicking on the Edit link on the Photo Gallery Screen. Inside the box will be a list of all the user’s albums. The user has the options of deleting an album or editing it if there are albums available. If the user clicks on an album, all of its contents will appear. The user will then have the option of adding or deleting a picture from the album. To add a picture the user will have to browse the computer and find the location of that picture. Once found, the user will click the Add Picture button and the picture will appear in the album. To delete a picture the user has to click the picture in order to highlight it and then click the Delete Picture button.
Photo Confirmation Screens

These screens will appear when the user attempts to delete either a picture (top photo) or an entire album (bottom photo). These screens can be accessed by clicking on Delete Album, or Delete Photo button on the Edit Album Screen. The boxes are a safety feature to ensure that the user knows they are deleting a picture or an entire album. If they click "Yes", they will return to their Edit Album Screen with their picture or album no longer there. If they choose No, they will simply be returned to the Edit Album Screen with no changes made.

Administrator Welcome Screen

The purpose of this screen is to allow the administrator to view new and changed accounts, and to allow the administrator to search for specific profiles. This screen will be accessed, as any other would, by signing into the system. Clicking on the View New/Changed Accounts button will direct the administrator to the Profile Review Screen.
Profile Review Screen

<table>
<thead>
<tr>
<th>New Profiles</th>
<th>Accept this Profile</th>
<th>Deny this Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>profile a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>profile b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>profile c</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Changed Profiles</th>
<th>Accept Changes</th>
<th>Deny Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>profile a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>profile b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>profile c</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The purpose of this page is to let the administrator know which profiles need to be checked for inappropriate material. This screen will be accessed from the Administrator Welcome Screen. It contains lists of both new and changed profiles. Several actions can be taken on this page. The profile names will be links to those profiles. Clicking on one of those links will direct the administrator to that profile’s Home/My Account Screen. Clicking Accept this Profile directs the administrator to the Accept Profile Screen. Clicking Deny this Profile directs the administrator to the Deny Profile Screen. Clicking Accept Changes directs the administrator to the Accept Changes Screen. Clicking Deny Changes directs the administrator to the Deny Changes Screen.
Accept Profile Screen

Profile A:

Is this profile one you would want to use for the Spotlight System?

○ Yes
○ No

Is this profile acceptable for the community site?

○ Yes
○ No

Comments

Accept

The purpose of this page is to allow the administrator to mark a profile as acceptable for the spotlight system. This screen will be accessed only by the administrator from the Profile Review Screen. It contains a few questions and an area for comments the administrator may or may not choose to answer. Upon submission, an e-mail is sent to the user, which notifies them that their profile has been officially accepted. This e-mail will also include any comments about the profile from the administrator.
Accept/Deny Changes Screen

Profile A:

With the changes, is this profile good for the Spotlight System?
☑ Yes
☑ No

Comments:

[Input field]

Accept

The purpose of this screen is to give the administrator the opportunity to mark a changed profile as a spotlight possibility or not. This allows the administrator to prevent joke profiles, fake profiles or profiles with inappropriate material. This screen will be accessed only by the administrator from the Profile Review Screen. It contains a question and a comment area that the administrator may fill in. Upon submission, an e-mail is sent to the user notifying them of whether or not the changes they made were accepted. If the changes were denied, the e-mail will also notify the user that the privacy option on their profile has been temporarily changed to private and that this privacy setting will remain until acceptable changes are made.

Deny Profile Screen

Profile A:

Reason for rejecting the profile:

[Input field]

Reject

The purpose of this screen is to allow the administrator to reject joke profiles, fake profiles, or profiles with inappropriate material. This screen will be accessed only by the administrator from the Profile Review Page. It contains a single text area in which the administrator may make a comment on the reason for rejecting the profile. Upon submission, an e-mail is sent to the user stating that the profile was rejected. This e-mail will also contain the reason for the rejection if a reason was given.
Data Flow Diagrams
Context Diagram
Level 1 Diagram

![Diagram](image-url)
Level 2 Diagram

Diagram showing the interaction between Administrative User, Profile Home Page, Profile Request, Profile Page, Control Panel, Profile Request, Profile Name, and Account Information, linking to Content Management System.

2.1 Verify Login
2.2 Retrieve Administrative Panel
2.3 Manage Profiles
2.4 Change Profiles

User Verification
Account Information
Profile Information
Profile Name
Data
Account Information
Profile Page
Profile Request
Profile Request
Profile Home Page
Login Information
Level 2.3 Diagram
Level 3 Diagram
Section 4: Functional Requirements

Use Case Scenarios

The Alumni Spotlight Web System will include three different user cases, each of which are described below including check lists of specific needs for each.

Anyone:
- Not a true community member, therefore has no customizable profile or log in name.
- Represents any user that visits the Siena College Computer Science Home page.
- Will only be able to view the current Alumni Spotlight that is active on the page above.

Community User:
- User will self register with the community
- Will have their own account profile which will be customizable with personal information.
- Will be able to upload a photo depicting themselves.
- Will have their own photo Album that can be updated.
- Will be able to search other community members that have registered for the Alumni Spotlight Web System.

Administrative User:
- This user will have complete access to all accounts.
- Will be able to modify the website as well as the database behind it.
- Administrative users will be able to select specific community members to be spotlighted on the Siena College Computer Science Home Page.
- If a community user seems to be causing problems, the administrative user will be able to delete the account.
- This user will not have an actual editable account, and will not be searchable by community members.

Functional Requirements Inventory

- The Alumni Spotlight Web System must be web based, so anyone can access it from anywhere.
- The system must work with all major Browsers, including but not limited to:
  - Internet Explorer 6.0
  - Mozilla Firefox 1.5.07
  - Netscape 7.1
  - Safari 2.0.4
- Sign in to the system securely.
- According to the Use Case scenarios in section 4, we will ensure that each user type is correctly established.
- Allow self-registration into the system.
• Allow users to change/add new personal information to their profile.
• Allow an administrator to access, monitor, and maintain the web site.
  o Ability to review, accept, and deny initial profiles and changes made to those profiles later on.
  o Ability to select and use a profile for the Alumni Spotlight.
• Allow the administrator to access the database to maintain the user’s data, and make sure the system runs correctly.
• Allow the administrator to generate a page automatically for the Siena College Computer Science Home Page displaying the Alumni Spotlight.
• The system should be controlled by some sort of CMS to facilitate the administrator’s job.
• The administrator must be able to select specific community user(s) for the Alumni Spotlight.
  In accordance to the point above, this selection must generate the page to be loaded on the Siena College Computer Science Home Page.
• Finally, all page links will be tested and ensure that they redirect users to their appropriate link.

Non-Functional Requirements Inventory

• The system should be fast, using fast servers and databases.
• This system should be easily adaptable, to enable Siena College to experience this community if desired.

Section 5: Performance Requirements

The Alumni Spotlight Web Systems must be universal. This system will be able to run on the following platforms: Windows, Macintosh, and Linux. It will also be accessible through Microsoft Internet Explorer 6.0, Netscape Navigator 7.1, Mozilla Firefox 10.4.7 and Safari 2.0.4. The Alumni Spotlight Web Systems will be designed to be viewable at most if not all screen resolutions.

The Alumni Spotlight Web Systems must be efficient. It must be able to quickly access profiles from a database in order to ensure that users are not keep waiting.

The Alumni Spotlight Web Systems must be secure. The system should only be accessible to registered users and the administrator. Un-registered users will not be able to view any user profiles or any user’s personal information.

The Alumni Spotlight Web Systems must be customizable to users. The system should allow the users to determine what information they want to keep private and what information they want to make public so that all other users may view it.

The Alumni Spotlight Web Systems must be easily expandable. The system should be able to be expanded if the System Administrator would like to add more people to the system.
The Alumni Spotlight Web Systems must be easily maintainable. The Web Administrator should have to expend a minimal amount of effort in order to make changes to the community. The effort they expend should consist of mainly clicking buttons (no background coding or other in-depth tasks).

Section 6: Exception Handling

While using the Alumni Spotlight Web Systems there may be some un-predicted circumstances that will cause an error. The Alumni Spotlight Web Systems must be able to handle some of these errors:

Forgotten Password:
There may come a time when the user may forget his/her password. The system should be able to handle this error. The system will be able to handle this by including a link on the sign on screen. The link will send the user to a page where their e-mail must be answered. The system will then send the user their password via e-mail.

User does not provide all required information for registration:
The user must complete all required fields indicated by a red *. Required fields will contain necessary information to complete a proper profile. Failure to complete required fields will result in the system asking them to resubmit their information again with the proper data.

Section 7: Early Subsets and Implementation Priorities

The most important priorities of the system are:
- The system must be web-based.
- Accessible through multiple web browsers.
- Accessible through multiple operating systems.
- Adaptable for future development, specifically to include more than just the Computer Science Department.

Section 8: Foreseeable Modifications and Enhancements

In future versions of the Alumni Spotlight Web Systems, there are several modifications and enhancements that could be included. We are hoping to create privacy features that would allow each user to choose from four different privacy settings (public, public protected, protected, and private). A public setting would allow that user’s profile to be viewable by the administrator, and community users as well as being eligible for the Alumni Spotlight. A public protected setting would allow that user’s profile to be viewable by themselves, and the administrator only. Profiles of the public protected setting are also eligible for the Alumni Spotlight. A protected setting would allow that a user’s profile is viewable by the administrator and community users, but this profile would not be eligible for the Alumni Spotlight. A private setting would allow the user’s profile to be viewable by themselves and the administrator only. The These privacy setting Another enhancement would be the implementation of a forum system. This
enhancement would enhance the sense of a community environment. Another enhancement that can be made to the system would be the inclusion of a web log (blog) system. This enhancement would allow Alumni to have an online journal to share with other community members.
Section 9: Acceptance Criteria

The Alumni Spotlight Web System will, at minimum, provide the following services to its users:

- Sign in to the system securely via a sign on screen.
  - Yes  No
- According to the Use Case scenarios in section 4, we will ensure that each user type is correctly established.
  - Yes  No
- Allow self-registration into the system.
  - Yes  No
- Allow users to change/add new personal information to their profile.
  - Yes  No
- Allow an administrator to access, monitor, and maintain the web site.
  - Ability to review, accept, and deny initial profiles and changes made to those profiles later on.
    - Yes  No
  - Ability to select and use a profile for the Alumni Spotlight.
    - Yes  No
- Allow the administrator to access the database to maintain the user’s data, and make sure the system runs correctly.
  - Yes  No
- Allow the administrator to generate a page automatically for the Siena College Computer Science Home Page displaying the Alumni Spotlight.
  - Yes  No

Sign On Screen

- Upon pressing the “Log On” button we will ensure that the user name and password are correct, and then redirect the user to their home page.
  - Yes  No
- We will ensure that the link for registration brings the user to the “Registration Screen.”
  - Yes  No
- Lastly, we will ensure that the link for a forgotten password works correctly as well, placing the user at the “Forgotten Password Screen.”
  - Yes  No

Registration Screen

- We will make sure that all indicated fields are filled in, and check the fields to ensure they can handle specific characters, such as spaces or single quotes.
  - Yes  No
• We will also make sure that upon submission, the account will be activated, and a confirmation email will be sent telling the user that their registration was a success. If the account exists already, we will re-direct the user to a page informing them that there is an account with that email address already.
  o Yes No

Forgotten Password Screen

• We will make sure the email account entered is contained in our database, and if it is, send the user their password.
  o Yes No

Home / My Account Screen

• We will make sure the correct information loads with the specified profile.
  o Yes No
  • A check of all the links will be done, ensuring that they all lead to their correct, respective pages.
    o Yes No

Edit Profile Screen

• This page will check to make sure all required fields have been filled in above all else.
  o Yes No
• We will ensure specific characters such as spaces and single quotes are acceptable.
  o Yes No
• Upon submission, we will make sure that each field is saved in the database, actually updating the specified profile.
  o Yes No

Search Screen

• Upon pressing “Search” we will make sure the fields entered check the database, and return the user to the results screen, showing correct information according to the search criteria.
  o Yes No

Results Screen

• We will ensure that the profiles displayed here are correct in accordance with the search criteria.
  o Yes No
Contact Us Screen

- We will ensure this screen will send an email to the systems administrator correctly including the user who sent it, as well as the comments that the user filled out within the comments area.
  - Yes  No

Photo Gallery Screen

- This screen will show the appropriate albums for the profile signed on.
  - Yes  No
- We will also make sure that any links – IE Upload, Delete, and Edit – are in working order.
  - Yes  No

New Photo Album

- Again we will make sure each link works, and that upon submission the new album along with pictures will be uploaded to the server, and be available for viewing purposes.
  - Yes  No

Edit Album Screen

- We will ensure that all links work correctly and that the database files reflect the changes.
  - Yes  No

Administrator Log-In Screen

- We will ensure that all the links from this page will work.
  - Yes  No

Profile Review Screen

- We will make sure that all newly created profiles, as well as modified profiles are listed for the administrator to view.
  - Yes  No
- Each link should work, taking the administrator to each user profile allowing him/her to view the selected profile.
  - Yes  No
- Acceptance or denial will prompt the administrator with another screen to inform the user of reasons for acceptance or denial.
  - Yes  No
Accept / Deny Profile Screens

- Both screens will send an email to the user explaining the status of their profile, as well as any comments made by the administrator.
  - Yes
  - No

Section 10: Testing Requirements

The website will be tested using Mozilla Firefox 1.5.07, Microsoft Internet Explorer 6.0, Netscape 7.1 and Safari 2.0.4 on computers running Windows XP SP2 and Mac OS X 10.4.7. The testing protocol will be developed by Initrode Solutions with the input and criteria of our client. Members of Initrode Solutions will be responsible for on-going testing as sections of development that are necessary to build upon for future development are completed.

Section 11: Design Hints and Guidelines

The Alumni Spotlight Web System will use a web interface in conjunction with a Content Management System (CMS) to generate and handle the profiles created by Alumni. The team is investigating using an open-source CMS called Drupal. In addition, PHP Hypertext Preprocessor (PHP) 4.1 can be used to copy the Spotlighted profile to a fixed location that will then be referenced in the Spotlight area.

Section 12: Cross Reference Index

This section will be available once we finalize a complete set of data flow diagrams in the design phase of the project.
Section 13: Glossary of Terms

Cascading Style Sheets (CSS) – These are used to describe a specific style for a web page or set of pages, a website.

Code - The symbolic arrangement of data or instructions in a computer program or the set of such instructions.

Content Management System (CMS) – Web based management system that will allow the team and webmaster to edit, modify, and remove profiles and web pages.

Data Flow Diagram – A representation of the functional decomposition of a system.

Database - A collection of data arranged for ease and speed of search and retrieval.

Drupal – An open-source content management system that is versatile and allows the user to personalize a network of profiles. There are several different themes and colors for visual effects. Drupal comes with the ability to handle self-registration pages, blogs, and easy file uploading. It allows the profiles to be organized into separate categories and to set permissions for the profiles. Lastly, Drupal has the ability to track changes made to the user profiles. The administrator will be able to view all of these changes.

Extensible Hypertext Markup Language (XHTML) – has same capabilities of HTML but is more restricted to allow for conformity among multiple platforms.

Gantt chart - A chart that depicts progress in relation to time, often used in planning and tracking a project.

Hypertext Markup Language (HTML) – Predominant markup language used for the creation of webpages.

Internet - An interconnected system of networks that connects computers around the world via the TCP/IP protocol.

Internet Explorer (IE) – Microsoft based program used for browsing the internet.

Linear Sequential Model / Classic Waterfall Model – A systematic, sequential approach to software development that begins at the system level and progresses through analysis, design, coding, testing, and support.

Markup Languages – Combines a set of text, along with extra information about this text, such as formatting.

MySQL – A Multithreaded, multi-user SQL Database Management System.
**PHP Hypertext Preprocessor (PHP)** – An open source (free) programming language that is used for dynamic pages and is a high-level scripting language.

**Portal** – a specific kind of Content Management System Web site, password protected to allow Site Administrators to edit text, images and other content as and when necessary. This allows easy updating of the website content without the need to learn programming code.

**Profiles** – User created accounts that will be customizable according to each specific person.

**Transmission Control Protocol/Internet Protocol (TCP/IP)** - A communications protocol for computer networks, the main protocol for the Internet.

**Web log** - an online journal comprised of links and postings in reverse chronological order, meaning the most recent posting appears at the top of the page. Also known as a blog.
Section 14: Development Timeline – Gantt Chart

<table>
<thead>
<tr>
<th>ID</th>
<th>Task Name</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Team Meetings</td>
<td>14 days</td>
</tr>
<tr>
<td>2</td>
<td>Client Meetings</td>
<td>14 days</td>
</tr>
<tr>
<td>3</td>
<td>Software Plan</td>
<td>4 days</td>
</tr>
<tr>
<td>4</td>
<td>Software Plan Presentation</td>
<td>3 days</td>
</tr>
<tr>
<td>5</td>
<td>Software Requirements</td>
<td>13.5 days</td>
</tr>
<tr>
<td>6</td>
<td>Software Requirements Presentation</td>
<td>3 days</td>
</tr>
<tr>
<td>7</td>
<td>Preliminary Design</td>
<td>24 days?</td>
</tr>
<tr>
<td>8</td>
<td>Preliminary Design Presentation</td>
<td>3 days</td>
</tr>
</tbody>
</table>

[Detailed Gantt Chart Image]