ADVANCE Informational Website

By

Michael Bloodworth

Submitted to Professor Humpert
the Faculty of the Information Technology Program
in Partial Fulfillment of the Requirements for
the Degree of Bachelor of Science
in
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University of Cincinnati
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Abstract

ADVANCE Informational website (A.I.W.) is a website that will provide an electronic foundation for the University of Cincinnati student career development organization. A.I.W will provide visual information to student body, financial sponsors, corporate advisors, and alumni members. The web site will consist of a plethora of static pages such as the organization history, calendar of events, photographs of past events, descriptions of each student executive board position, and links to corporate sponsor web pages.

The web site will include online membership form, forum, and resume upload page. It will allow users to apply for an account, students to complete an online application to join ADVANCE, upload a resume to apply for student executive board position, or request a resume critique. The website has been developed using Adobe Dreamweaver as the HTML editor, PHP as the programming language, and MySQL as the database management system.

In addition to providing an Internet footprint for the university student organization, A.I.W coincides with the organization mission by building a professional network for ADVANCE members of the past, present, and future. The site also provides information to financial sponsors, as they may seek status on the use of their money and time.

1. Statement of the problem

ADVANCE is a minority professional development organization founded by African American students at the University of Cincinnati in 1986, in response to the expressed need of minority students to enhance their career awareness and preparation for career success during and after college experience at the University of Cincinnati.

ADVANCE holds several events during the academic year for the student body. Dress for Success informs students how to dress in the corporate environment. ADVANCE offers resume critiques as well. Human Resources corporate advisors assist students with developing resumes and discussing the rules of building an effective resume. Two other events that are significant to the student organization are the ADVANCE annual Networking Reception and the Corporate Excursion. The Networking Reception is held in the month of October in the university's alumni center. At the reception, students and members of ADVANCE are given the opportunity to interact with corporate advisors from a wide spectrum of companies in the Greater Cincinnati area. These companies range from Fortune 500 companies such as Procter and Gamble (one of the world leading household names) to non-profit organizations such as Smart Money (currently located in the financially challenged community "Over the Rhine").

ADVANCE's second annual event is the Corporate Excursion. This event is very similar to the Networking Reception, but its scope is much broader because it takes place outside of Cincinnati, Ohio. During the week of the university's spring break about 20 students accompanied by advisors from the Career Development Center (CDC), visit Fortune 500 and small local companies in a pre-selected major city in America. Students of the organization are also tasked to research each company's history, culture, and objectives.

Previous cities visited during the excursion include: Memphis, Tennessee; Indianapolis, Indiana; Chicago, Illinois; New York, New York; Washington D.C.; and Atlanta, Georgia. ADVANCE is a great organization that exposes students to the corporate culture that they may encounter during their career.

Like other student organizations at the University of Cincinnati, ADVANCE needs a solid web presence.

2. Product Description and Intended Use

I propose to develop the ADVANCE Informative Website (A.I.W) that will contribute information to enhance the organizational experience for the financial sponsors, advisors, student body and board members. The site will consist of a plethora of static pages such as the organization history, calendar of events, photographs of past events, descriptions of each student executive board position, and links to corporate sponsor web pages. In addition to the static pages, the site will also have dynamic page capabilities. The dynamic pages of the site will include: event calendar, photographs, online membership form, forum, and resume upload page. It will allow users to apply for an account, complete an online application to join ADVANCE, upload a resume to apply for a student executive board position, or request a resume critique.

To create the informative website and graphics for ADVANCE, I will rely on Dreamweaver CS 3, Photoshop CS3, and Illustrator CS 3. These three applications are combined in the Adobe Creative Suite. The major reasons that I chose to use Dreamweaver CS 3 are its plug-in for PHP toolbar for PHP developer and its ability to integrate PHP with HTML. I selected Photoshop CS 3 for the non-vector based graphics and photograph

modification. Adobe Illustrator CS 3 provides the capabilities to develop vector based graphics that can be scaled or rendered, preserving their vivid colors and detail.

2.1 User Profiles

There will be three user types for A.I.W., Administrator, Student/General browser, and Alumni members. The use case diagram is provided below in Figure1.

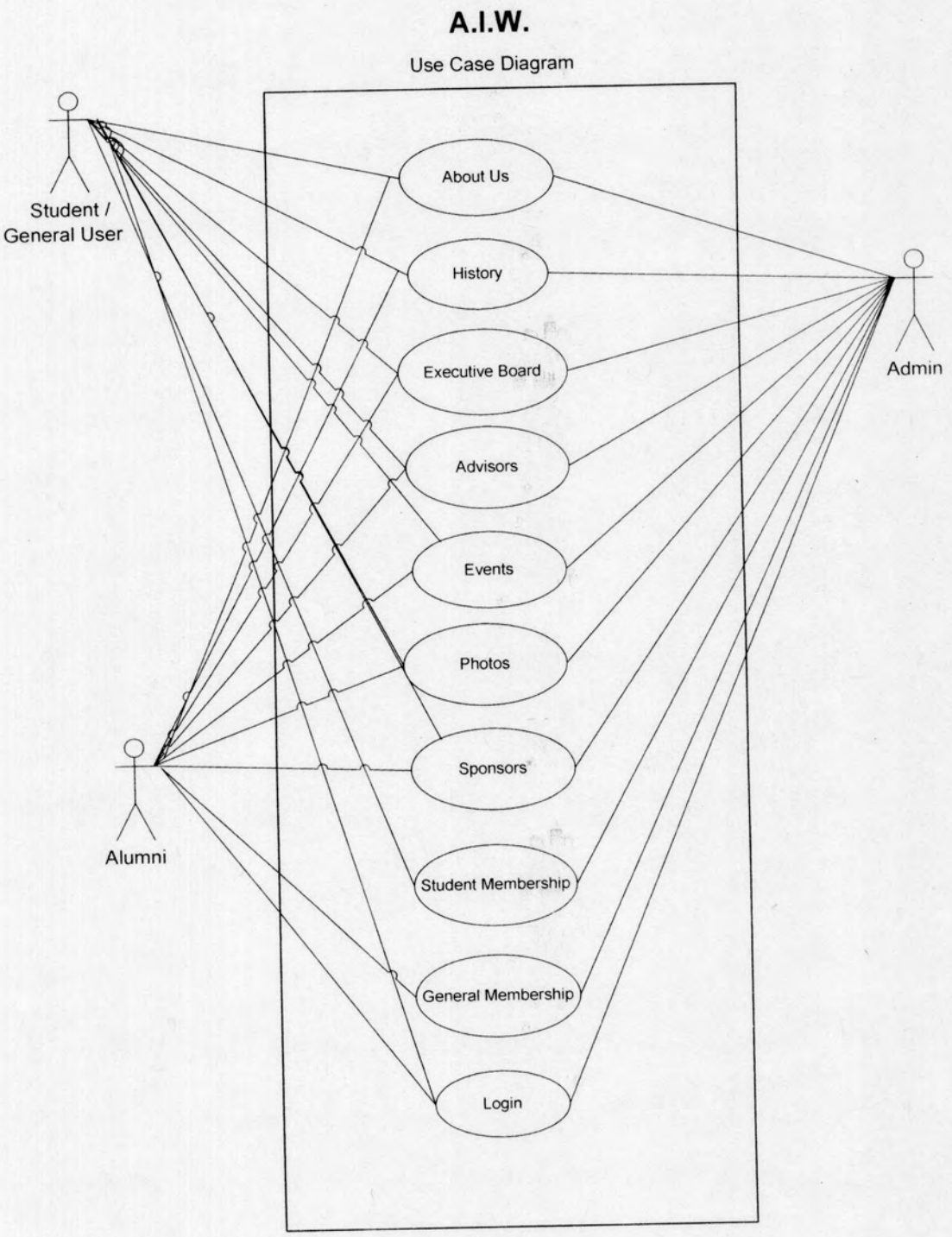

Figure 1. A.I.W. Use Case

2.1.1 Administrator

The administrator will be able to view the complete site. Administrators modify the A.I.W static pages such as history, calendar of events, and photographs. They may also modify dynamic pages like resume up loader, event calendar, photographs, and add or delete users and profiles. The administrator role would be used by advisor of the organization and the student Director of Information Systems to update site with photographs, event postings, organization charts, and corporate advisors for the school year.

2.1.2 Student/General User

The student user will be a restricted user. Unlike the administrator, who can view the whole site the student/general user will only be able to view static pages, calendar of events, forum and photographs. Once the student chooses to request an A.I.W account, he or she will be able to post to the forum, upload resumes, and search resumes.

2.1.3 Alumni

Like to the student/general user, the alumni user has account restrictions. The alumni will only be all static pages, calendar of events, forum and photographs. Once the alumni member chooses to join the A.I.W, he or she will be able to post to the forum, upload resume, and search resumes.

2.2 Design Protocol

There are three areas of technology for the ADVANCE Informational Website:

Graphics: Photoshop CS 3 was used to design the layout of the site.

Programming: I used PHP for the server side scripting and HTML. It was developed using Dreamweaver CS 3.

Database: The database was designed using MySQL.

2.2.1 Graphics

The main template layout was created using Photoshop CS3. At the time of this project, Adobe was one of the leading software companies providing digital media software. With its ability to save creations in multiple layers and formats, the software provides the capability to create images that can be used for pamphlets, posters, and other marketing tools such as a website.

2.2.3 Programming

Dreamweaver CS3 was used to develop PHP server scripting and the HTML code for the site. Dreamweaver is another tool offered by Adobe that allows you to create your own templates and split your screen to view server side and client side views of your work. It also has good WYSIWYG (What You See Is What You Get) allowing the user to see how your work will actually look in your browser of choice. Most people use Internet Explorer, Firefox, Safari, and Opera. Dreamweaver also interacts fluently with Photoshop and other software packages. The site map of the A.I.W. is below for your viewing.

2.2.3 Database

The A.I.W. contains one MySQL database. It will contain students and members' first name, last name, address, city state, zip, phone number, credit hour rank, employment, functional area of interest. The database will also contain administration data. (Connection string below in Figure 2).

```
<?
define("DB_SERVER", "localhost");
define("DB_USER", "**************");
define("DB_PASS", "***********");
define("DB_NAME", "********");
define("TBL_USERS", "users");
define("TBL_ACTIVE_USERS",  "active_users");
define("TBL_REVOKED_USERS",  "revoked_users");
define("TBL_STUDENTS", "students");
>?
```

Figure 2. Connection String

3. Deliverables

There are numerous items the A.I.W. will provide to it student members and supporters the following functionalities:

- A clean website design.
- An event calendar for upcoming events.
- Online student membership form.
- Resume uploading

4. Design of Development

This section will provide the project timeline, software and hardware budget.

4.1.1 Senior Design I Accomplishments

During Senior Design I the following goals were fulfilled:

- Researched other student organization websites
- Identified issues of the existing site
- Consulted with organization on there needs
- Increased knowledge on PHP, MySQL and Dreamweaver
- Met with student advisor
- Presented my proposal to my peers and teachers

4.1.2 Senior Design II Accomplishments

During Senior Design II a lot of time was spent learning PHP and MySQL. I also came up with the site layout and user interface using Photoshop.

- Created Cascading Style Sheet
- Arranged site design and layout
- Designed database to connect to A.I.W.
- Increased knowledge on PHP, MySQL and Dreamweaver
- Met with student advisor
- Presented my Design Freeze to my peers and teachers

4.1.3 Senior Design III Accomplishments

During Senior Design III the following item were fulfilled:

- Met with student advisor
- Test page layout and site design
- Participated in Tech Expo
- Presented my proposal to my peers and teachers

4.2 Budget

The budget for this project is shown below. Since this project was developed with shareware and trial software, the budget reflects the actual cost for these software packages if the organization chooses to continue using items suggested by the developer. (View Budget in Figure 3.).

Software

Item	Cost
Adobe Creative Suite 3:	$0.00 *
MySQL 5:	$0.00 Open Source #
PHP 5.0	$0.00 Open Source #
Apache	$0.00 Open Source #
Core FTP Lite:	$0.00 Shareware #

Hardware

Siteground Web Hosting:	$80.00 U.S. Dollars Annually
Total:	**$80.00 U.S. Dollars**

* Since the educational version of Adobe Creative Suite 3 was used there was no cost. Actual cost for the Adobe Creative Suite $1,799 U.S. Dollars.

MySQL 5, PHP 5, Apache, and Core FTP Lite were included with Siteground Web Hosting

Figure 3. Budget

4.2.1 Hardware

To complete the A.I.W., I needed a web server that was capable of running PHP 5, MySQL 5, and FTP capabilities were needed. I chose Siteground to host the site. With Siteground, A.I.W. resides on has 768 Gigabytes (GB) Linux operating system running apache web server.

4.2.2 Software

Software used to create the A.I.W. was Dreamweaver and Photoshop CS3, MySQL 5, and PHP 5. (See Figure 4.).

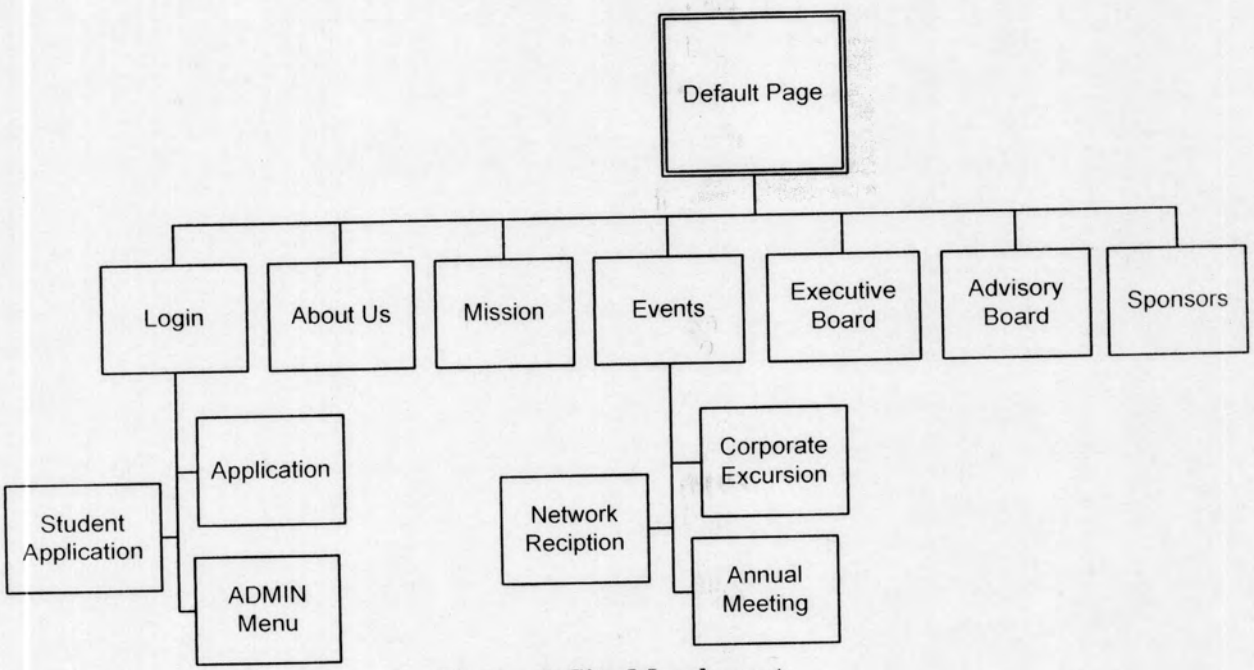

Figure 4. Site Map layout

The default page contains descriptions of the organization, its accomplishments for the year, and why you should join the organization. At the top of each static page is the ADVANCE logo, Create an account, and login links to the website. Along with the main

menu these two links are carried out with Cascading Style Sheet theme. The Create an account and Login pages are dynamic and were created using PHP. Moreover PHP is used to connect to the A.I.W. to the MySQL database. The create account form will consist of the users email address and password. (Refer to Figure 5.).

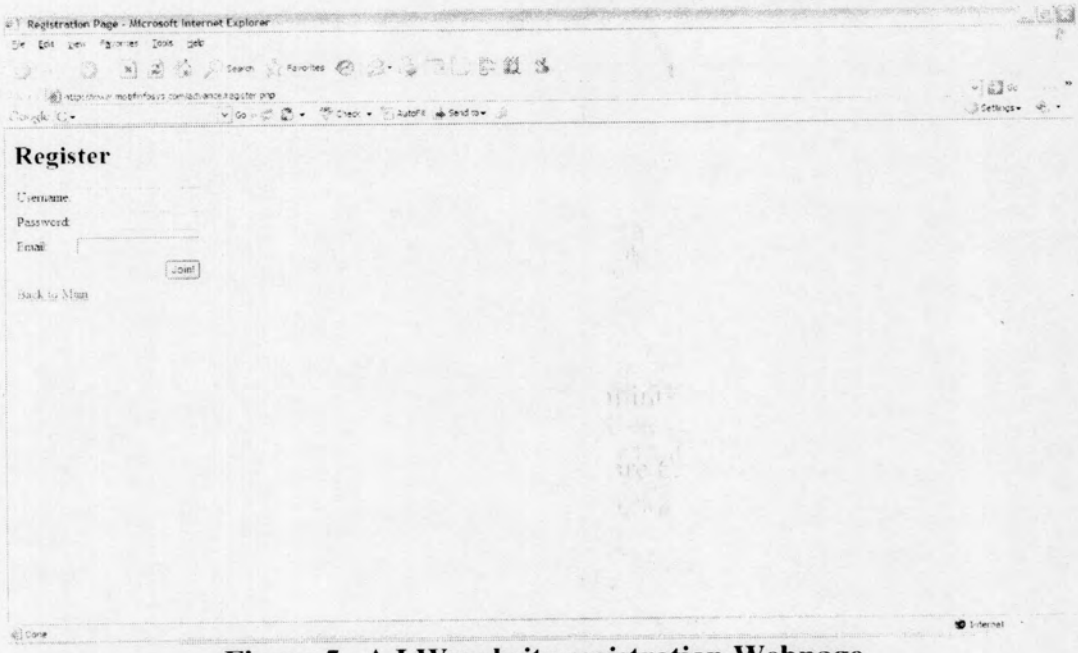

Figure 5. A.I.W website registration Webpage

The next portion of the site that the student will be able to fill out is the student membership application form. The application will consist of the student's first name, last name, address, telephone number, city, state, zip code, employment, major, Grade Point Average (GPA), email address, class rank, functional interest and the preferred date to attend an ADVANCE student body meeting. (Refer to Figure 6.).

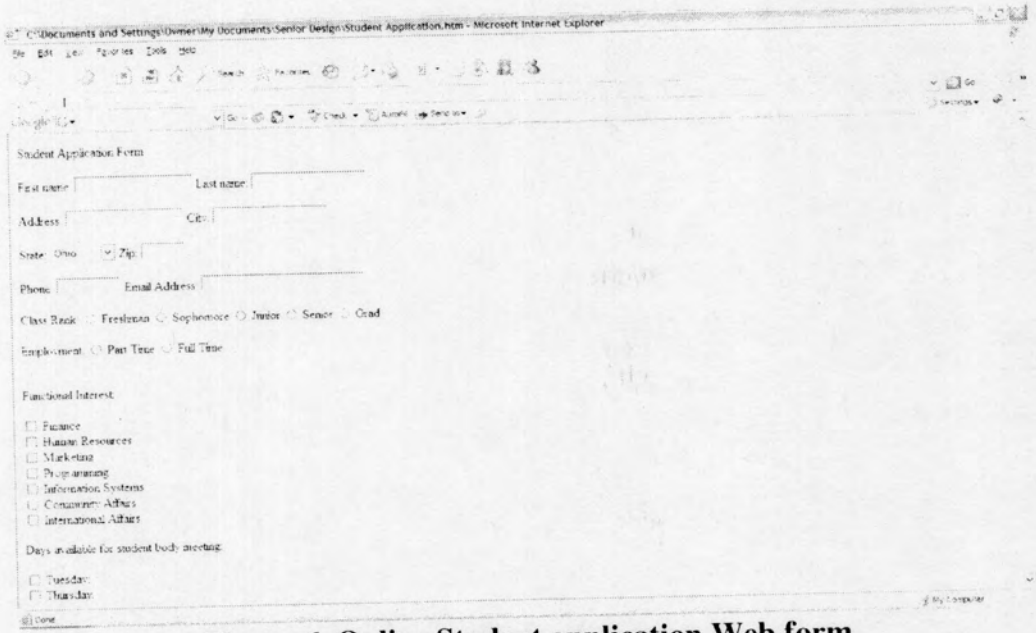

Figure 6. Online Student application Web form

The final portion registered members will be able to access is resume upload and viewing. Registered user will be able to view resume of other members for reference to best practices and see examples what not-to-do.

4.3 Testing Plan

The A.I.W was tested through the lifecycle of the project. The testing was done by the web designer and student board members, CDC advisors, and assigned student advisors. Suggestions for improvement as a result of testing will be incorporated in later releases of the A.I.W to the public.

5. Proof of Design

This section will specify the deliverables of the project and the lessons learned. In today's corporate environment a lot of companies insist that network administrators block Active X controls and flash applets from being used and downloaded. With this being known I chose not to have a flash introduction. I wanted to make sure that the site users would be able to access site from any device with Internet capability. Once the default page is loaded the viewer will see an explanation of the organization, its most recent accomplishments and why a student should get involved with the organization. (See Figure 7.).

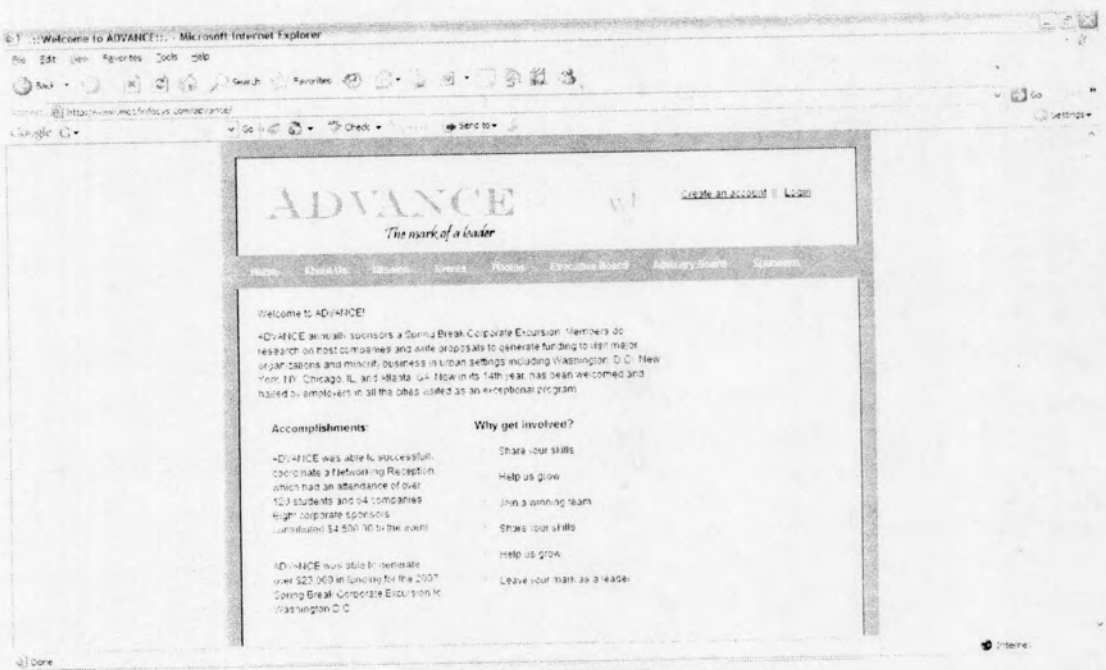

Figure 7. A.I.W Homepage

The About Us page contains the background which discusses when, why and where the organization was started at the University of Cincinnati. (View Figure 8.).

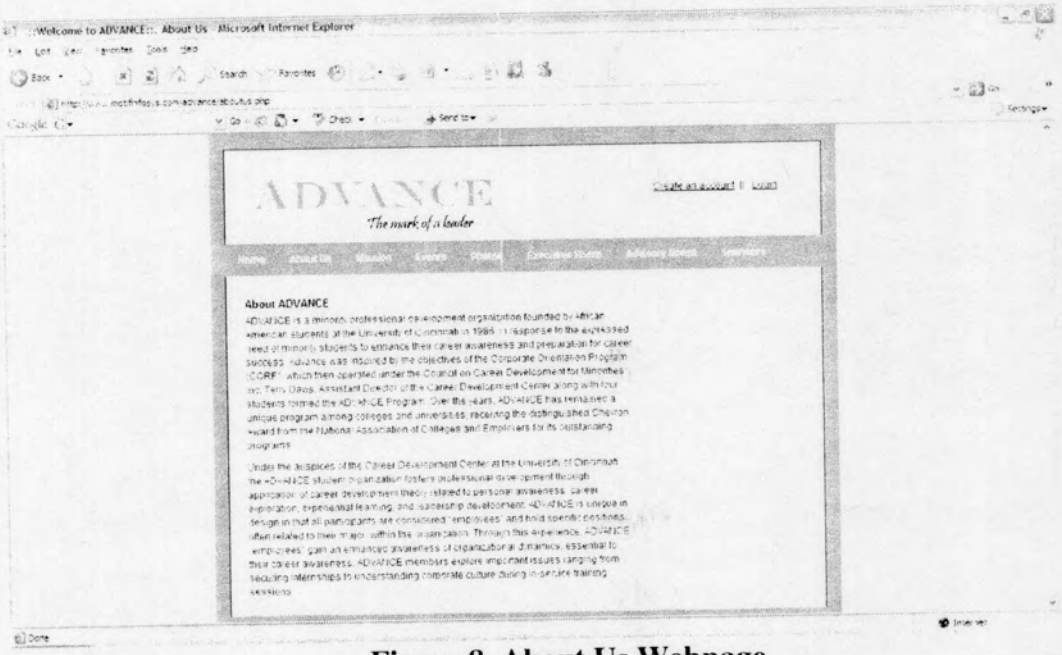

Figure 8. About Us Webpage

The mission page contains the mission of the ADVANCE organization (view figure 9.).

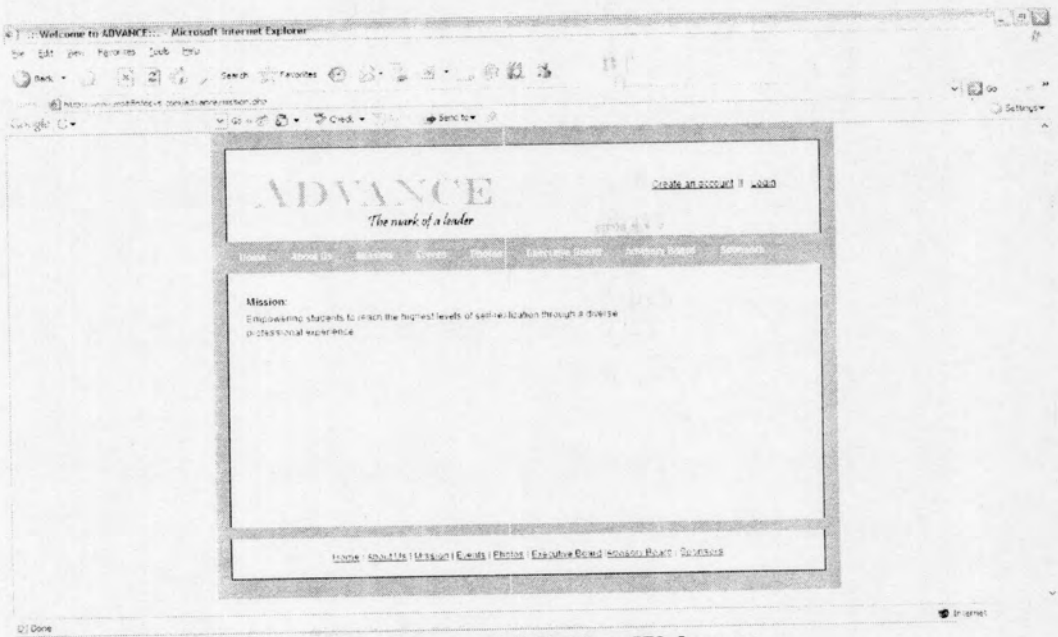

Figure 9. Mission Webpage

The events page contains the latest events and programs of ADVANCE organization. (View Figure 10.).

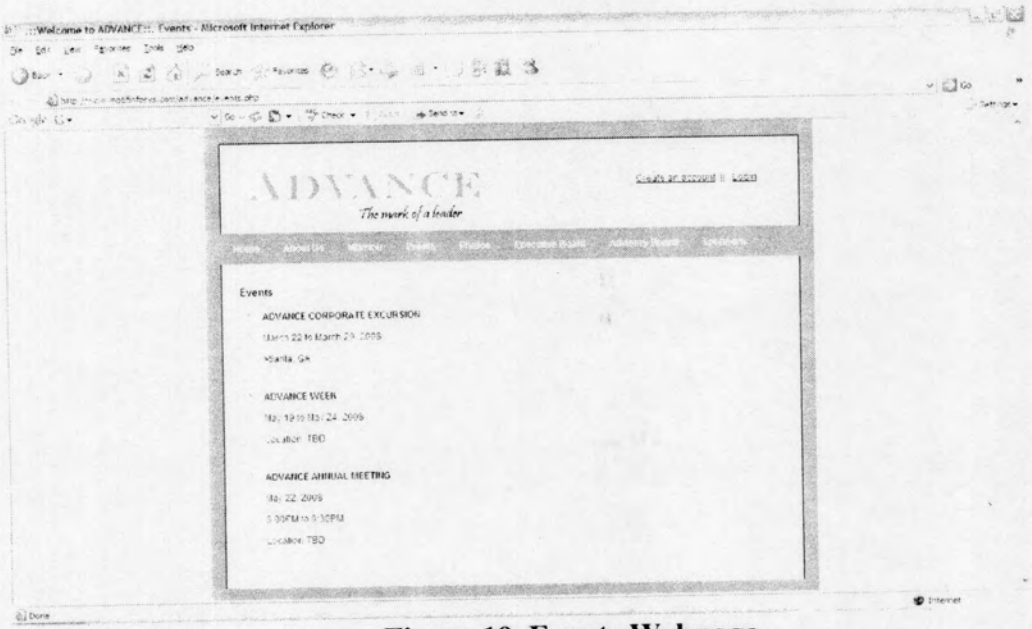

Figure 10. Events Webpage

The photos has two portions, first page is a page that contains links to photographs as shown in figure 11.

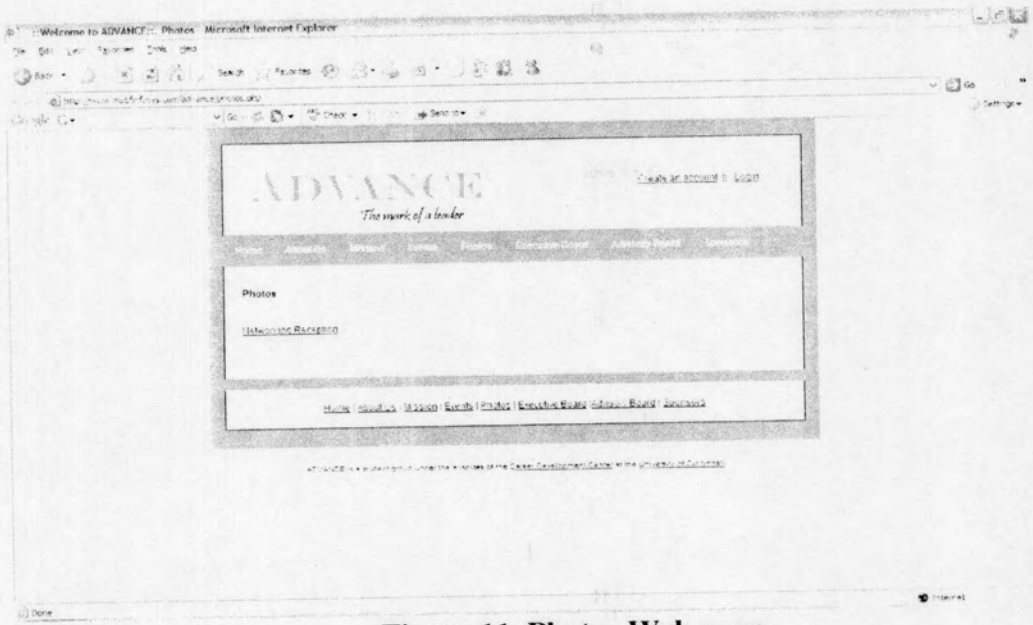

Figure 11. Photos Web page

The second facet of the photos page is small pictures in a table. Once the picture hyperlink is clicked, it opens up a page with picture image enlarged and the thumbnails previous, next and index links located at the top of the page. (See Figure 12.).

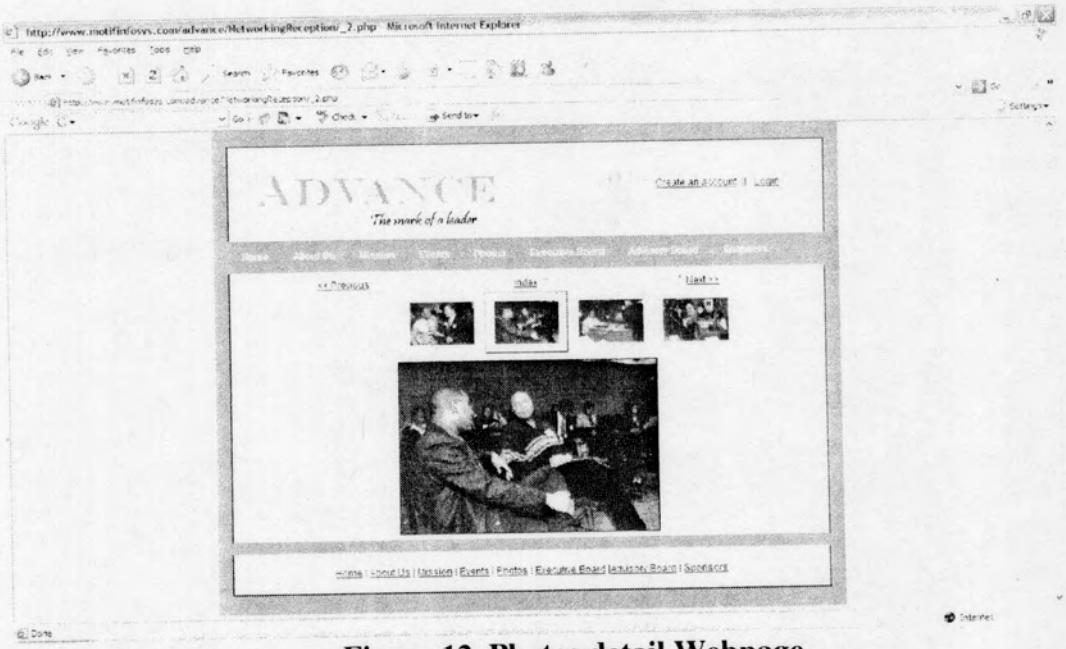

Figure 12. Photos detail Webpage

The executive board page shows a list of the student executive board members and their titles. (View Figure 13.).

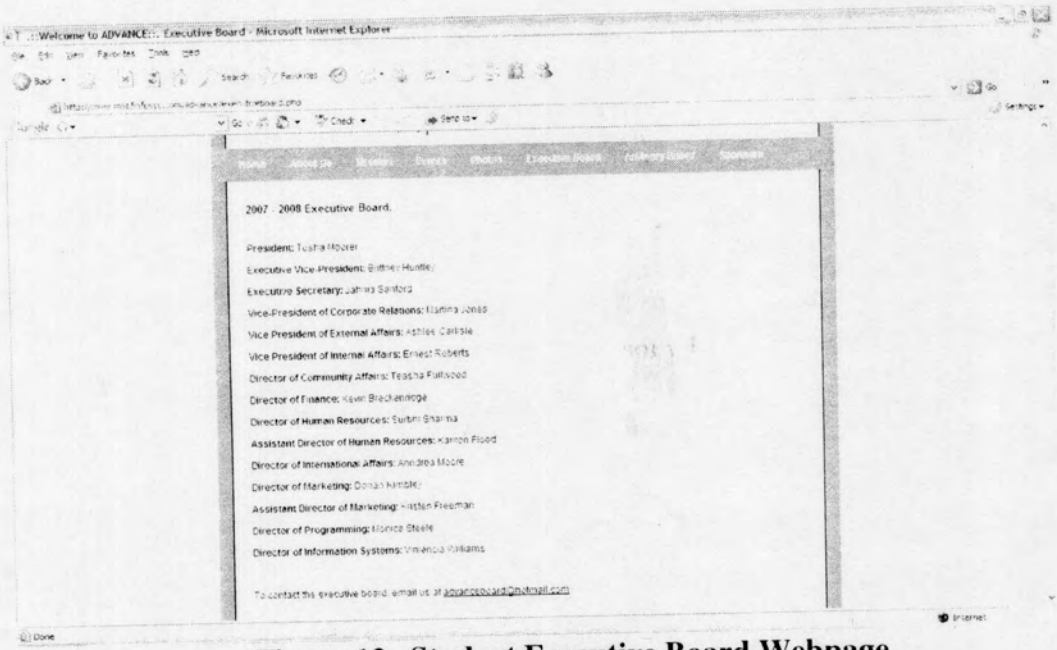

Figure 13. Student Executive Board Webpage.

The Advisory Board page contains the names of the corporate Advisory Board members and the companies they are employed by. (See figure 15.).

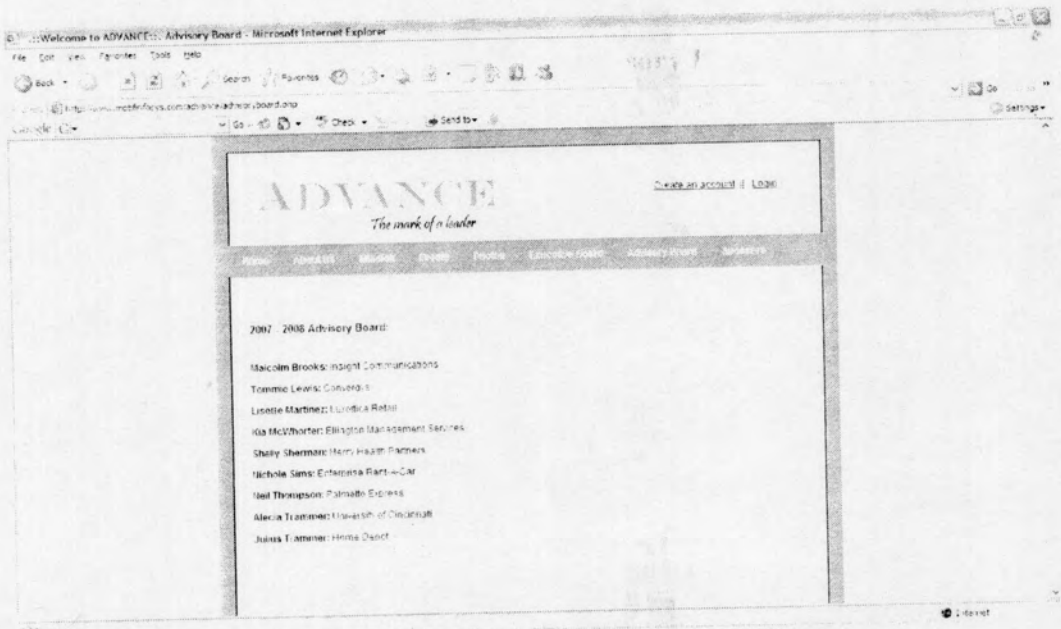

Figure 14. Corporate Advisory Board Webpage

The corporate sponsor page contains names and website links to ADVANCE's monetary contributors for the academic year. (View Figure 15.).

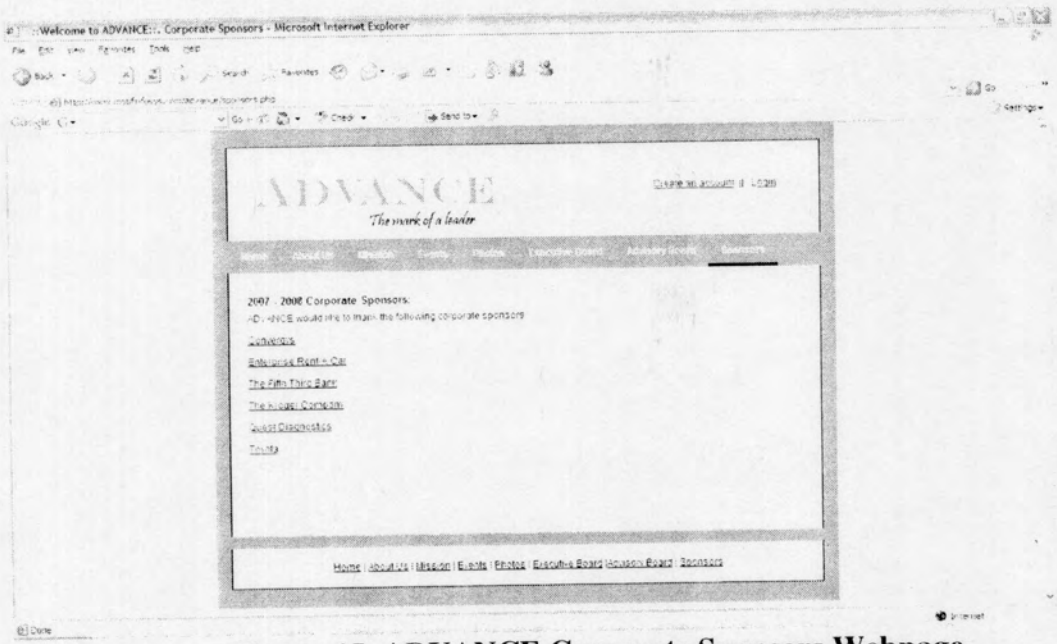

Figure 15. ADVANCE Corporate Sponsors Webpage

The menu navigation and text content was developed with PHP. The Login page requests a member's username and password. It also has links on the page to create an account or retrieve passwords. (See Figure 16.).

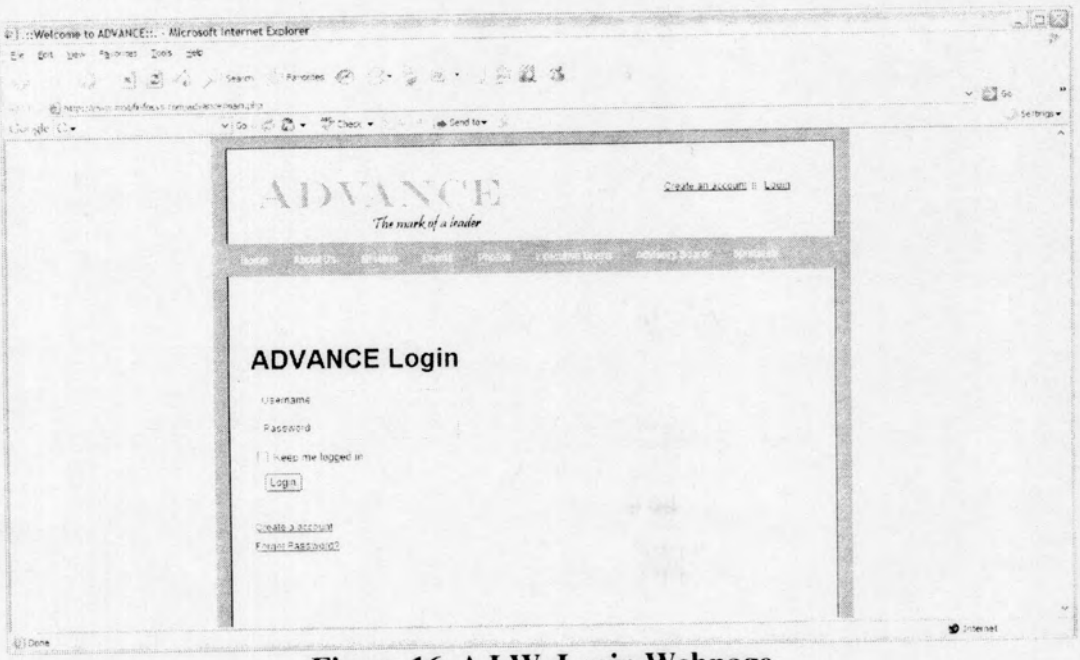

Figure 16. A.I.W. Login Webpage

The account profile page displays the username and email address of the logged in individual to A.I.W. (See Figure 17.).

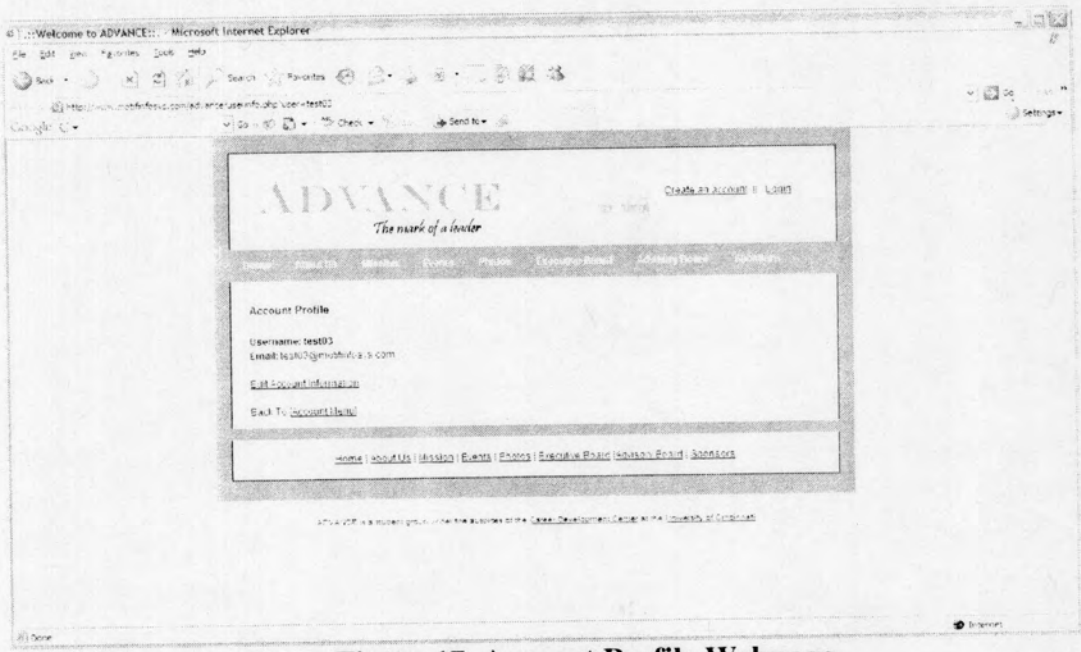

Figure 17. Account Profile Webpage

The user account page allows the user to update their password and email address. (See Figure 18.).

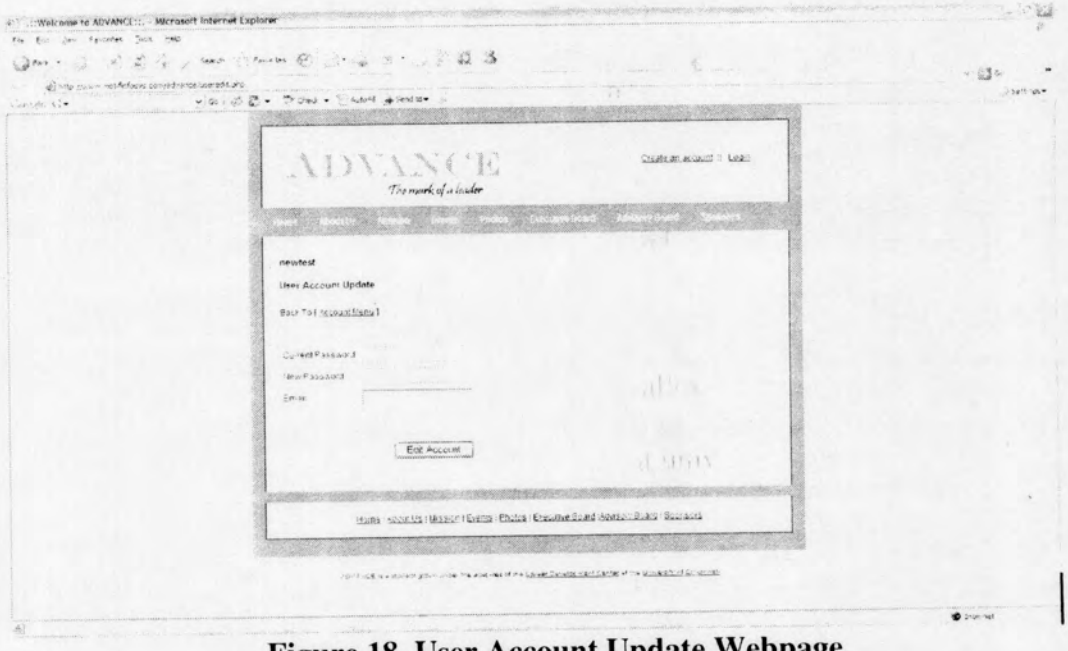

Figure 18. User Account Update Webpage

6. Conclusion and Recommendations

6.1 Conclusion

The focus of the project is to provide a visually informative website with information about ADVANCE, their goals, and an online form to allow students to join the organization. The website also provides links and information about university or private business organizations that students may find resourceful, but are unaware of. A web presence will broaden ADVANCE's student and financial sponsor's base more efficiently and effectively, other than by word of mouth. By providing information that fosters relationships between students, advisors, and corporations, the A.I.W. builds networks that can last a lifetime, introducing resources to establish a solid foundation for a successful career.

6.2 Recommendations

While working on this project I ran into typical setbacks. One of the major setbacks was learning PHP and MySQL syntax. It today's programming there a plethora of Open Source Content Management Software or Content Management System (CMS) that would assist webmaster or Web Developer with their website vision. CMS can assist creating customized blogs, forums, databases and dynamic event calendars. Some CMS examples are Joomla, PHPBB, PHP Nuke, Mambo, Drupal, and MediaWiki.

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