CSCI 4970/6970 Front-End Web Development CLASS PROJECT SPRING 2021 (Total Points: 100)

Recreation of CS Dept. Website

Auburn University at Montgomery - Dept. of Comp. Sci., Montogomery, Alabama

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Abstract

Department of Computer Science and Computer Information System (Dept. of Comp. Sci.) at Auburn University at Montgomery (AUM) is going to redesign their website for their new programs, new courses, etc. As a well-trained front-end web designer and developer, you want to take this challenge definitely.

Of course, you are not going to work from a sketch. You can reuse all the content from the existing Dept. of Comp. Sci. website. Some extra materials will be provided in this document as well. Please follow the guideline, and we can complete this task together!

1 Objectives

In this project, students are supposed to learn:

1. How to design a website
2. How to use HTML5 + CSS3 to fulfill the requirement of your design
3. How to use JavaScript and jQuery

2 Guideline and Steps

2.1 Draft Your Website (20 Points)

In this phase, you are going to make a sketch or wireframe for your website. Examples could be found in Figure 1 and Figure 2. When you are designing your website, please follow the guideline presented in Chapter 17 of textbook.

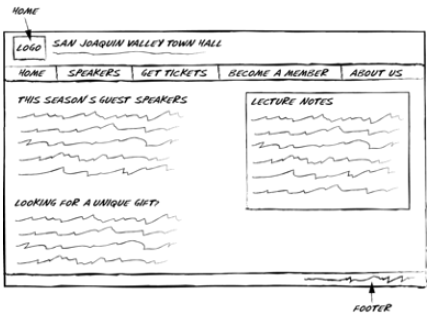

Figure 1: Sketch

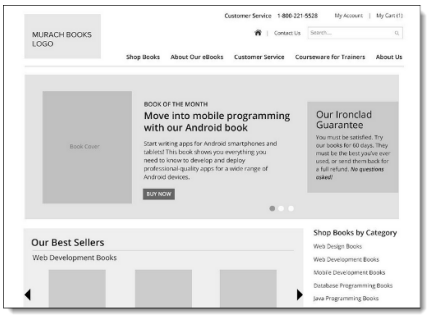

Figure 2: Wireframe

2.1.1 Requirements

1. Every page of your website should contain a CONSISTENT HEADER and FOOTER.
   - Your header should contain a logo, a title and a navigation bar. You can either use the one in the existing CS website or create one by yourself.
   - Your footer should contain some extra information like your name, copyright, contact etc.
   - You can consider to add more items to header or footer. like a Google search bar. But keep in mind that, simpler is better.
2. Required Pages:
   i) Home page. Put all content that you think the users might want to learn quickly here—for example, important news and events, student activities, etc.
   ii) Computer science program description page (See Section 3.2).
   iii) Teaching Assistant Application page
   - You should use HTML form for this page.
   - Form input includes Student's full name, ID, Gender, GPA, Submission Date, Comments. Validate the user input if necessary.
   - You can reuse survey_data.html in Week 3's post-exercise to display the form data.

   iv) GPA calculate page.
   - Use JavaScript to implement a GPA calculation tool.
   - To calculate GPA, the user needs to enter the credit hours and letter grade for at least two courses.
   - Convert the letter grade to numbers (A - 4.0, B - 3.0, C - 2.0, D - 1.0, F - 0).
   - Use the following equation to calculate the average GPA.

$$\frac{\sum_{i=i}^{n} NumericGrade_i \times CreditHour_i}{\sum_{i=i}^{n} CreditHour_i} \tag{1}$$

   - Graduate students: Your calculator must support adding a new row dynamically.
3. Optional Pages - You can reuse any page from the existing Math & CS Dept. website (Section 3) or create any page that you want to. You have 2.5 points bonus for each optional page and totally up to 5 points for this bonus.

2.1.2 Submission

Compress all design images together in zip or 7z format (Due: April 11, 2021).

2.2 Implement Your Website (80 Points)

In this phase, you will implement the website with all skills that you learn in this course. Here are the requirements. Note that you don't need to fulfill the all requirements in a single page. As long as some pages satisfies the requirements then it's fine.

2.2.1 Requirements

1. Use HTML forms.
2. Use HTML tables.
3. Use Images.
4. Use CSS3 with external style sheet.
5. Use two column layout.
6. Do not use other CSS libraries like BootStrap.
7. You would get 5 bonus points if you use jQuery in your page.

2.2.2 Submission

Host your website somewhere (GitHub Page, S3, etc.) and submit the URL to your website. (Due: May 3, 2021 - No extension).

3 Appendix: Supported Materials

Note: The following content is just for your reference.

3.1 Current Math and CS Website

https://www.aum.edu/computer-science-0/
https://www.aum.edu/computer-science/
https://www.aum.edu/collegeofsciences/departments/computer-science/

3.2 Computer Science Program Description

3.2.1 Program Description

Do you want to know how to design and program the computers powering some of today's greatest innovations? Ever wondered how your phone knows where the nearest Starbucks is, how Google's self-driving car is even possible, or how your music and photos live in the cloud? Maybe you want to know how computers protect businesses — and people — and other cybersecurity issues. AUM's Computer Science Program, with a curriculum based on the latest ACM/IEEE recommendations and an emphasis on high-performance computing, will prepare you for a career in computer programming, networking, database management, multimedia design or technology architecture.

U. S. Bureau of Labor Statistics sample data		
Job	Median Pay	Job Growth through 2024
Computer and Information Research Scientist	$108,360 per year	11% (2700 more jobs)
Computer Network Architects	$98,430 per year	9% (12,700 more jobs)
Computer Analyst	$82,710 per year	21% (118,600 more jobs)

Table 1: Caption

3.2.2 Points of Pride

- You'll have access to the most powerful computational resources and expertise in the country through our partnership with the NSF-supported Extreme Science and Engineering Discovery Environment.
- Computer Science faculty are engaged in the private sector, supporting research and partnerships with national and international user groups and initiatives.

3.2.3 Put Your Degree to Work

Note: While salaries vary depending on several factors including your level of experience, education and training, and geography and industry, here is a sampling of the future job growth and salaries in this area.

Employment of computer and information technology occupations is projected to grow 12 percent from 2014 to 2024, faster than the average for all other occupations. The most recent median annual wage for computer and information technology occupations $79,390 — higher than the median annual wage for all other occupations.

3.3 For More Information

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