CST8285: Web Programming

Assignment 2(Group Project)

HTML, CSS, JavaScript &PHP

Objectives

• **Allows you to use your creativity, to develop a dynamic web application. You will choose what you want to build, with the project requirements constraining the features that must be used.**
• **Have hands-on experience with several technologies and are able to make these components interact with each other to provide services.**
• **Work as a team, collaborate with your project partner(s) professionally and contribute fairly.**

Read the entire instruction before starting. **If at any time you are unsure or are having problems, consult your lab instructor**.

Required Equipment: XAMPP, HTML editor, Collaboration Tool (GitHub recommended)

Part I: Choosing Your Team (Due: November 5))

Teams will consist of maximum four students and one student will be the team lead. It is encouraged that you play to your strengths the team leader will oversee facilitating team communication, project integration, and client interaction. When you have decided on your team configuration register your team on the BrightSpace.

Part II: Choosing Your Project

For this project you will create a robust dynamic web application which meets the following minimum criteria: ***Please consider the following as minimum requirements only — you are encouraged to get creative and do more than this, but this is what will be required to receive full marks.***

- There will need to be some database interaction on the back end that provides content to the webpage, through the website you must be able to add/create content, display content, and remove content.
- You must be able to Searching and filtering the content.
- Semantically correct HTML
- a registration form where someone can register as a new user. You must be able to save this information into the database.
- There will be no standard HTML form validation anywhere in the whole site, **all front-end validation will be done with JavaScript** and use DOM manipulation.
- Include dynamic behavior, client-side input validation (JavaScript) with DOM manipulation to modify the pages according to the user's inputs or the application's current states.
- Clean, modern, consistent through whole site responsive (mobile/desktop) layout.
- Have at least one external CSS file
- Perform client-side input validation (Validate form data ,Provide user-appropriate error messages
- Use good coding style
    - Make identifier names understandable
    - Use proper and consistent indentation
    - Use comments
    - Use carriage return

Possibilities include a business website that allows custom registered user interactions; a cataloguing type web application that allows a user to catalogue things like books, contacts, etc.; content management application such as a simple database driven blogging tool; or a basic social networking tool allowing users to connect and message each other.

When you have decided on a project the team leader will inform the lab instructor and this will be checkpoint 1 in the marking schema (pass/fail). Your lab instructor will give you feedback including recommendations to keep the project in scope as well as features that the client specifically requests.

Part III: Project Submission

When the project is completed and tested you will package up the deliverables as follows:

- All website collateral (code, images, SQL, etc.) arranged in folders so that they can be installed in a subdirectory on the lab instructor's XAMPP.
- All supporting documentation that contains at a minimum a web map, a wireframe , a functionality guide, a description of the database, and any special coding considerations.
- All code written for the project in any language. Identify **who wrote what portions of the code.**
- Database definition code (DDL for the tables).
- Database scripts.
- A breakdown of the tasks assigned to each team member.

Each team submits only one copy. Upload the zip file to group assignment on BrightSpace.

Part IV: Final Project Demo (Full Team)

When the project is ready to demo to the client, you will arrange for the whole team to do a demonstration of the web application. **All partners must be present at the demo**. Each participant should be able to describe and demo the features of the website that they have worked on. The team leader will schedule this demo.

You will have to sign-up for a demonstration slot in order to do this. A sign-up page will be available for you to use. An announcement with details will be sent out when a demo sign-up sheet becomes available. Please only **sign up for one slot and do not remove the slot of another group**. Sign up early so that you get the slot you want.

- **The work will be graded zero if you do not demo it on time, even if uploaded.**

- A demo is limited to 15 minutes (10 minutes demo + 5 minutes Q&A).

Grading

- Requirements 80%
  - **Client-side Design (HTML/CSS) (20%)**
    - Properly create at least three different screens with respect to the functionalities you proposed.
    - Semantically correct HTML.
    - Properly allow users to interact with the system
    - Properly accept users' data entries (i.e., inputs).
    - Properly implement and use at least one external CSS file.
    - Use consistant style through all the screens.
    - Support responsive design / layout.
    - All parts / components must be properly connected, That is, once a user enters your app through a web browser, there is an appropriate navigation system and / or an execution flow allowing a user to achieve his / her goal(s).

  - **Client-side Scripting (JavaScript)(30%)**
    - Properly validate form data
    - Provide user-appropriate error messages
    - Properly perform DOM manipulation
    - Properly modify style and layout of your screens (or views) when a specific event occurs
    - Correctly use at least one event listener
    - You must be able to Searching and filtering the content.

- **Server-side Components (PHP/SQL) (30%)**

  - database interaction on the back end that provides content to the webpage, through the website you must be able to add/create content, display content, and remove content.

- Other requirements (10%)

  - The code is structured perfectly, commented and has great spacing and indentation
  - Use good coding style: readability, style, and maintainability 5%
    - Make identifier names understandable
    - Use proper and consistent indentation
    - Use comments
    - Use carriage return.

- Project Submission(10%)
  - Make sure to include all the requirements mentioned in Part III.

Suggested Weekly Schedule

- Week 9 – Form a team (max 4 members), decide on a project concept (be creative!). Design a user interface, including all necessary elements.
- Week 10 – Client-side Design (HTML/CSS)
- Week 11– Client-side Scripting (JavaScript)
- Week 12– Server-side Components (PHP/SQL)
- Week 13 – Testing and documentation. Double check your work and submission
- Week14- Demo

Due Date

- **Sunday. 4th Dec. Midnight (no extension)**