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.**

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: July 5))

Teams will consist of three or four students and one student will be the team lead. Consider that you will have to do your demonstration at the same time as a team when choosing team members from other sections. 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.

Suggested Team Roles

Team Leader	The team leader should be the person on your team most comfortable with interacting with the client (your lab instructor) and will be the coordinator for the whole project. They are responsible to contacting the client, setting deliverable dates, communicating the scope of the project to the team, giving the client an initial demo, as well as integrating the code and documentation as deliverables. ** The team leader role can be combined with any other role in a three-person team.*
Back End Developer	The back-end developer is responsible for any database connectivity and back end coding for the project. They will use collateral developed by the front-end development team.
Front End Designer	The front-end designer is responsible for user interface design as well as developing the CSS layout for the project. They will ensure that the website/application has a responsive layout accommodating both a mobile and a desktop layout schema. They will also develop/collect any graphical collateral required for the project.
Front End Developer	The front-end developer works with the front-end designer to create a dynamic and functional front-end web experience using JavaScript and HTML. They are expected to follow the semantic markup set out by the front-end designer and to ensure that any interfaces are programmed correctly and communicate with the back end in expected ways.

Part II: Choosing Your Project

For this project you will create a robust dynamic web application which meets the following minimum criteria:

- A clean, modern, consistent, functional, and responsive layout with both a mobile and desktop mode available.
- 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, this can be as simple as invoice data.
- You must be able to Searching and filtering the content
- Semantically correct HTML
- Interaction with a JSON data source to populate a dynamic aspect of the website such as lists of recipes, music, weather data, etc.
- A registration form where someone can register as a new user. You must be able to save this information into the database and use this information to allow a user to log onto the website.
- Include dynamic behavior, all client-side input validation to be done with JavaScript and DOM manipulation to modify the pages according to the user's inputs or the application's current states. There will be no standard HTML form validation in the entire site.

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 IV: Project Submission

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

- All website collateral (code, images, etc.) arranged in folders so that they can be installed in a subdirectory on the lab instructor's XAMPP. If you use frameworks or libraries, these **must** also be included or linked.
- All supporting documentation that contains at a minimum a web map, a design guide, a functionality guide, a description of the database, and any special coding or web server configuration considerations.
- All code written for the project in any language. Use comments to identify **who wrote what portions of the code.**
- Database definition code (DDL for the tables).
- A breakdown of the tasks assigned to each team member

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. 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 your final lab class.

Other Important Requirements

- Demo and justify your work and provide correct answer to professor questions.

- The work will be graded zero if you do not demo it on time, even if uploaded.
- Students must demo at the same time in one of the lab classes, not being part of the team demo will result in a 0 for this assignment for that team member.

Grading

- Requirements 80%
  - Client-side Design (HTML/CSS) (20%)
  - Client-side Scripting (JavaScript)(30%)
  - Server-side Components (PHP/SQL) (30%)
- The code is structured perfectly, commented and has great spacing and indentation 10%.
- Stunning design and innovation 10%

Suggested Weekly Schedule

- Week 9 – Form a team of 3-4, 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

- **Monday. 8th August. Midnight**