University of Jeddah
College of Computer Science and Engineering
Department of Software Engineering
Academic Session: First Semester 2025-2026

CCSW321 – WEB DEVELOPMENT

PROJECT: First Website

Total Marks: 20 Marks

Submission 1 Deadline: Week 12

Submission 2 Deadline: Week 14

Objectives

The purpose of this project is to engage in a team and play roles in the design and the development of a web application and to demonstrate your understanding of web development technologies (HTML5, CSS3, JavaScript, Node.js, and MySQL), accessibility and good page design by creating a collection of well-structured Web documents.

Task

In this project, you must develop a website that contains multiple pages and make use of HTML, CSS, JavaScript, and MySQL (the textual content is yours to decide). The content and the scope of this website must of sufficient scale for a group project.

Project Requirements

- The code must use HTML exclusively for content, and CSS exclusively for presentation.
- The code must pass HTML validation (https://validator.w3.org/#validate_by_input) and a screenshot of a valid submission must be presented with the submission.
- This a group project. To be completed by 2-4 students.
- All HTML5 code must be generated using a text editor (no machine generated pages will be accepted!). Use indentation of the HTML5 source code to clearly identify the structure of the code.
- Documents that have been exported from any other editor will not be accepted. The code for this project may not contain java applets, plugins and JavaScript.
- The submitted code **MUST BE your own code**. You are not allowed to use completed projects from online sources or code from other students or from previous years. If it was determined that the code does not seem to be the student's own code, you may **lose up to 50% of your grade**.

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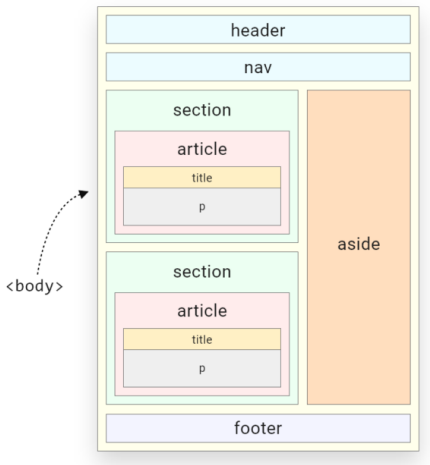
General Requirements

Your website must include all the following:

- **Overall:**
  - Your website must use an idea that is **unique and different** from other students.
  - Must utilize HTML5, CSS3, and JavaScript properly and follow best practices.
  - Must contain HTML elements shows in class such as a navigation bar, a **table** (e.g., for the about us page) with a complete structure and a **form** that collects user input and submits data to backend.
  - Must accept and validate user input appropriately on the frontend and backend.
  - Must integrate with a **database** to save and view data.
- **Folder Structure:** Your website folder must be structured an organized in a way that makes it easy to navigate. Please consider following the structure below:
  - **HTML folder:** contains all HTML files.
  - **CSS folder**: contains all CSS files.
  - **Media folder**: contains all images/videos and/or multimedia used.
  - **JS folder:** contains all JavaScript code used for front-end.
  - **Backend folder:** contains all code used for backend.
- **Website Structure:** Website must contain a minimum of 4 pages:
  - **Index.html:** A welcome page. This page should make clear what the site's purpose is and provide appropriate links to the main pages of your site. Make sure to fully use HTML5 semantic structure as follows:



- **About-us.html**: This page is informing the world of who the developers are. This page must use a table structure. For example, it could include a table that lists the students' names, IDs, and any existing links to their social media/portfolios.
- **Contact-us.html:** This page must contain a form that collects users' information and submits it to the backend for further processing. The form should request at least the following information:
  - First and last name.
  - Gender.
  - Mobile.
  - Date of birth.
  - Email address.
  - Language of communication with at least three options (e.g., Arabic, English, French).
  - Message box.
- **Page 4:** The page represents the website's main idea. It must include a web a form that will be handled later in the backend script. For example, if the website is a restaurant, then this page will be for menu and orders.

Code specific requirements:

- **HTML:** Your code must be idented and implemented properly. You must use the HTML5 structure explained in the class that utilizes the semantic tags <header>, <nav>, <section>, <aside>, <footer>, etc.
- **CSS:** Your code must be separated completely from HTML and contained with a separate .css file. Do not use inline CSS. Please be creative with your CSS and place some effort in your styling. Also, make sure your website is responsive and is displayed properly for at least the standard sizes (576px, 768px, and 992px).
- **JavaScript:** Your code must be separated completely from HTML and CSS and should be contained with a .js file. Also, your code must be indented and well organized.
- **User Input Data Validation:** All forms collecting user input must implement:
  - **Frontend validation:**
    - Implement a data validation layer using HTML which includes using the correct type for the input field and using attributes such as "required", "maxlength", "pattern", etc.

- Implement a data validation layer using JavaScript that checks for type, length, and format.
- Make sure an appropriate message is being displayed back to the user.

- **Backend validation**:
  - Replicate the same data validation on the backend for further processing.
  - Clean all input to make sure it does not contain any content that may harm the website or the database.
  - For each user entry you must check for entry, type, length, and format.
  - Make sure an appropriate message is being displayed back to the user.

- **Database Integration:** Your website must include at least 2 server-side pages that:
  - Display data that is stored in a database.
  - Add data in a database.

Submission Instructions:

The project will be submitted in two parts.

Submission 1 (Deadline Week 7): In this submission you will submit the HTML and CSS part of your website. It must be a completed version of the main content. For submission 1, you should submit the following:

- A zipped file with a fully functional version of your assignment code.
  - The zipped file name must contain your name and ID.
- A PDF or a power point presentation file with images of all pages, code, and HTML validation screenshots. It should also include 3 screen shots displaying how the website is viewed on different browser sizes (576px, 768px, and 992px).

Submission 2 (Deadline Week 10): In this submission, you will extend your previous submission to include the JavaScript and Database part. This should be a complete working version of your website. For submission 2, you should submit the following:

- A zipped file with a fully functional version of your project's code.
- A PDF file or a power point presentation that explains the project's idea and shows screenshots of the following:
  - All website pages.
  - HTML validation proof (https://validator.w3.org/).
  - How the website is viewed on different browser sizes (576px, 768px, and 992px).
  - Code snippets for user input validation and database communication.
  - Pages used for saving/loading data from the database.

Please be aware that a presentation will be required at the end of the semester where you will present you project in a live-demo setup. Please be well prepared and make sure to double check that your laptop and website are functioning properly before your presentation.

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Assessment Sheet:

Grades will be determined according to the following:

Assessment	Grade
CLO 2.1 (7 points)	
Structure: HTML, CSS, JS, and media are separated in the website's folder	0.5
Content: Website contains all requested pages (index, about-us, contact-us, page4) according to instructions provided.	
Design: Website styling is creative and unique, i.e., different from other students with an acceptable level of student's creativity.	0.5
Code: HTML5 structure used across website (header, footer, nav, etc) in a consistent manner.	2
Code: CSS is well separated and properly used	
Code: HTML5 and CSS code use best practices	
Code: HTML code passed validation (https://validator.w3.org/)	
Accessibility: Student used accessibility best practices (e.g., used alt with <img> and used HTML5 semantic tags to structure all pages, etc)	1
Responsiveness: An adaptive CSS is used that handles small and large devices. Expected working sizes are (576px, 768px, and 992px).	1
User Input: Form is implemented properly and utilizes at least 4 different types of inputs to collect users' data (e.g., text, number, date, list, file, etc).	2
CLO 2.2 and CLO 2.3 (9 points)	
Code: Uses JavaScript techniques extensively and in an acceptable manner	1
Code: JavaScript (front-end and backend code) separated and use best practices	
Data Validation: checks for entry, type, length, and format.	2
User Input Validation: Front-end validation (HTML AND JavaScript) implemented with appropriate user messages for valid and invalid entries.	2
User Input Validation: Back-end validation implemented with appropriate user messages for valid and invalid entries.	2
Database Integration: Website uses a database to store and display data	2
CLO 3.1 (4 points)	
Engagement: Workload divided reasonably among students	1

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Communication: Attended group meetings and actively participated	1
Presentation: • Content is of high quality and presented within allocated time. • Presentation time divided reasonably among students (all participated).	2
Common Issues	
Student did **NOT** follow submission instructions	-5
The website lacks proper amount of content (It is too simple)	-5
The website lacks proper styling (It is too simple)	-2
The website lacks proper interactivity (It is too simple)	-5
The submitted code does **NOT** seem to be the student's own work. (e.g., is a copy of another student's work or an online premade template)	-10
The submitted code seems to be generated automatically from an online tool	-10