Web Engineering 1 - Web Development Showcase
Project Description

Summary

1. Objective: The objective of this project is for you to develop a website of your choice using HTML, CSS, and JavaScript. The project aims to assess your skills in web development and focuses on implementing best practices, user experience, and responsive design principles.
2. Team: 2 - 3 Members

Suggested Topics

You will have the freedom to choose any theme or topic that interests you, and create a website that reflects your unique style and personality.

Here is a list that may help you in case you do not have a theme in mind:

1. Portfolio Showcase:
    a. Create a website to showcase your portfolio or work samples.
    b. Implement dynamic features like image sliders, filtering projects by category, and interactive elements for a visually engaging experience.
2. Recipe Collection:
    a. Develop a website to share and explore various recipes.
    b. Use JavaScript to implement features such as recipe search, ingredient calculators, and dynamic recipe ratings and reviews.
3. Event Planner:
    a. Design a website for planning and organizing events.
    b. Include dynamic elements like event countdown timers, RSVP forms, interactive seating arrangements, and event schedule customization.
4. Travel Blog:
    a. Build a travel-themed website to share your travel experiences and recommendations.

b. Use JavaScript to create interactive maps, photo galleries with lightbox effects, and dynamic content filters based on destinations or categories.

5. E-commerce Store:
    a. Develop a static e-commerce website with product listings and shopping cart functionality.
    b. Use JavaScript to enable features like product filtering, sorting, product image zoom, and interactive shopping cart updates.
6. Fitness Tracker:
    a. Create a website to track and monitor fitness goals and activities.
    b. Implement dynamic features such as workout logging, progress tracking, calorie calculators, and interactive charts for visualizing fitness data.
7. Music Player:
    a. Design a website that serves as a music player.
    b. Use JavaScript to build features like a customizable playlist, audio controls, volume sliders, and dynamic song recommendations based on user preferences.
8. Quiz or Trivia Game:
    a. Develop a website with interactive quizzes or trivia games.
    b. Use JavaScript to implement features like timed questions, score tracking, result calculations, and dynamic question generation.

Requirements

1. Theme Selection:
    1.1. Choose a theme or topic for your website such as your favorite hobby, a travel blog, or a portfolio of your work.
    1.2. Ensure that the chosen theme is appropriate and relevant to your target audience.
2. Plan your website:
    2.1. Develop a plan for your website, including the layout, color scheme, typography, and content.
    2.2. You can use tools like wireframes or mood boards to help you visualize your ideas.
3. Technology Stack:
    3.1. Develop the website using HTML, CSS, and JavaScript.
    3.2. Use CSS to style your website, including fonts, colors, backgrounds, and layout.
    3.3. Do not use content management systems (CMS) for this project.
    3.4. Your website should include **at least four pages**, including a home page, an about page, a contact page (with a form), and a page related to your chosen theme.
4. Semantic HTML:

4.1. Utilize semantic HTML tags to enhance the structure and accessibility of your website.

5. Use images and multimedia:
   5.1. Use images, videos, or other multimedia elements to enhance your website content.
6. Responsive Web Design (RWD):
   6.1. Ensure that your website is responsive and adapts to different devices and screen sizes.
   6.2. Implement CSS media queries to achieve proper responsiveness (if-needed).
   6.3. CSS Responsive Layouts:
      6.3.1. Create responsive layouts using CSS flexbox or grid.
      6.3.2. Your layout should fluidly adjust across different screen sizes.
7. Accessibility:
   7.1. Adhere to web accessibility guidelines to ensure your website is accessible to users with disabilities.
   7.2. Properly label form elements and provide alternative text for images, among other accessibility considerations.
8. Easy Navigation:
   8.1. Implement clear and intuitive navigation methods on your website.
   8.2. Use navigation menus, breadcrumbs, or other appropriate techniques to facilitate easy navigation.
9. UI Guidelines:
   9.1. Follow UI guidelines for typography and layouts.
   9.2. Choose fonts, font sizes, and spacing that align with your selected theme while maintaining readability.
10. Use external libraries or frameworks:
   10.1. Optionally, you can use external libraries or frameworks like Bootstrap or jQuery to add extra functionality or streamline your development process.
11. Extra Features:
   11.1. Incorporate additional features such as animations, transitions, and transformations to enhance the user experience.
   11.2. Use these features judiciously and ensure they serve a purpose within the overall design.

Milestones

Milestone 1 - DL 3rd of June: Perform Usability Study and Create Wireframes/Prototypes (Extra Grade for User Testing):

1. Conduct a usability study to understand user needs and expectations for your website e.g. Define website goals, user stories, website users (personas).
2. Create a sitemap for the website based on the planned content.
3. Create wireframes or prototypes to outline the structure and functionality of your website.
4. For an extra grade, perform user testing with real users to gather feedback and validate your design choices.

Milestone 2 - DL 24th of June: Develop HTML, CSS, and JavaScript Functionality:

1. Implement the HTML and CSS for your website based on the wireframes and prototypes.
2. Develop JavaScript functionalities to enhance user interactions and dynamic elements.

Grading Criteria

The project will be evaluated based on the following criteria:

1. Theme Selection**:** Relevance and suitability of the chosen theme.
2. HTML Structure and Semantics: Proper use of semantic HTML tags to enhance website structure and accessibility.
3. Responsive Web Design: Effective implementation of responsive design principles.
4. Accessibility: Adherence to web accessibility guidelines, including proper labeling and alternative text.
5. CSS Responsive Layouts: Creation of flexible and responsive layouts using CSS flexbox or grid.
6. Extra Features: Thoughtful inclusion of animations, transitions, or transformations to enhance the user experience.
7. Easy Navigation: Implementation of intuitive navigation menus or other methods for easy website navigation.
8. UI Guidelines: Adherence to UI guidelines for typography and layouts, ensuring a visually appealing and readable design.

9. Code Quality and Best Practices: Clean, well-structured and well-documented code following industry best practices.
10. Overall Design and Creativity: Visual appeal and creativity of the website design.
11. Project Presentation.

Project Deliverables

1. A design document: Submit a design document that includes your website plan, wireframes or mood boards, and a description of your design choices and rationale.
2. A code repository: Submit your website's source code on a version control platform like GitHub, along with a brief description of the project and any instructions for running the website.
3. A live website [Optional]: Host your website on a web server and provide the URL for the website.

Presentation

At the end of the project (last lecture), the whole team will present the website and explain the design choices, implementation techniques, and the overall user experience.