

Lab 03: Web Development Using HTML, CSS, and Tailwind CSS

Objective

The objective of this lab is to enable students to apply CSS and Tailwind CSS concepts to enhance the design and responsiveness of their respective web development projects. Students will demonstrate practical understanding of the following concepts:

- Flexbox and Grid layouts
- Gradients and Animations
- Hover effects and Dark Mode
- Component-based design
- Responsive user interface development using Tailwind CSS and Flowbite components

Lab Task Description

Students are required to design and style their multi-page web project using Tailwind CSS and Flowbite component libraries.

Each page must follow a consistent layout structure, including a navigation bar and footer, and should integrate visually appealing UI components.

1. Navigation Bar (Navbar)

- Create a responsive navigation bar using Tailwind CSS components.
- The Navbar must remain consistent across all project pages.
- It should include:
 - App Logo and Application Name
 - Navigation Links: *Home*, *About*, and *Contact*
 - Authentication Links: *Sign Up* and *Sign In*
- All navigation links must be functional, supporting both forward and backward navigation between pages.

2. Home Page Styling

- The Home Page should contain a Hero Section selected from Tailwind CSS Hero Components.
 - Explore and choose a suitable hero section from Flowbite marketing block library:
<https://flowbite.com/blocks/marketing/hero/>

- Below the Navbar, use at least ten (10) different Tailwind CSS components.
 - For example (Cards, Gallery, Mega Menu, Modals, Alerts, Popover).
 - The remaining five components should be selected independently by students from the Flowbite component library: <https://flowbite.com/docs/getting-started/introduction/>
- Ensure a Footer section is added from Tailwind CSS components, maintaining design consistency across all pages.

3. About Page Styling

- Design the About Page using five (5) new components selected from the Flowbite Tailwind CSS library.
- Components should enhance readability and layout presentation (e.g., Timeline, testimonial, accordion, team section, or stats).

4. Contact Page Styling

- Design the Contact Page using five (5) additional components from the Flowbite library.
- Include a Contact Form that integrates with a form-handling API such as FormsPree for submission functionality. <https://formsfree.io/>
- Ensure all input fields, labels, and buttons are styled using Tailwind CSS classes.
- Also add Form validations.

5. Sign Up Page Styling

- Design the Sign Up Page using five (5) additional Flowbite components.
- The page must include a Sign-Up Form that collects basic user information.
- Sign up Form must include a navigation link with a message: ***“Already have an account? Sign in”***.

6. Sign In Page Styling

- Design the Sign In Page using five (5) more Flowbite components.
- The page must include a Sign-In Form with properly styled input fields.
- Sign in form must include a navigation link with a message: ***“Don’t have an account? Sign up”***.

Submission Requirements

Each student must prepare and submit a PDF report containing the following:

1. **Live Project Link:**

- Deployed using GitHub Pages (place this link at the top of the report).

2. **GitHub Repository Link:**

- Provide the GitHub repository link directly below the live link.

3. **VS Code Screenshot:**

- Full-screen screenshot of VS Code, clearly showing the file and folder structure of the project.

4. **Webpage Screenshots:**

- Individual browser screenshots of each page (*Home, About, Contact, Sign Up, and Sign In*) demonstrating implemented components.