MAJOR PROJECT

# TITLE-SIMPLE PORTFOLIO WEBSITE

**Project Overview**

The portfolio website project demonstrates my abilities as a web developer and serves as a personal platform to showcase projects, skills, and other professional information. The primary focus of the website is on providing an interactive, engaging user experience with responsive design elements, a dark/light theme switcher, and a project gallery with sorting and filtering capabilities. This website will serve as the cornerstone of my professional presence, giving recruiters and peers an easy way to review my work and contact me.

**Objective**

The main objective of this project is to design and implement a modern, professional, and fully functional portfolio website. The key objectives are:

1. Create a responsive design that adjusts to different screen sizes and devices.

2. Implement dark and light theme modes with a toggle feature.

3. Provide an interactive project gallery with filtering and sorting options.

4. Include sections such as 'About Me', 'Skills', 'Projects', and 'Contact'.

5. Ensure easy navigation across the website with smooth scrolling and clear user interface elements.

6. Apply proper form validation on the contact form using regular expressions.

**Technology Stack**

**HTML**-For Structure.

**CSS**-For Styling.

**JavaScript**-For toggle light and Validation form.

**Fonts**- Google Fonts for typography (Poppins)

**Tools**- VS Code, Chrome Developer Tools

**Website Features**

**1. Dark/Light Mode Toggle**

A theme toggle button is provided to allow users to switch between light and dark modes. This enhances user experience by letting visitors choose the mode they are most comfortable with. The implementation includes:

Use of CSS variables for easy color theme switching.

JavaScript to toggle between themes and save user preferences using local storage.

**2. Responsive Design**

The website is fully responsive and works seamlessly on different devices such as desktops, tablets, and smartphones. Key aspects include:

- Use of `clamp()` and `rem` units in CSS for scalable typography and layout elements.

- Flexbox and grid layout techniques to ensure adaptability to screen sizes.

- Testing and optimizing for various screen resolutions.

**3. Interactive Project Gallery**

The projects section showcases my major work, including:

**Project 1:** A basic calculator, implemented using HTML, CSS, and JavaScript.

**Project 2:**Expense Tracker.

**Project 3:** This portfolio website, emphasizing design, user experience, and responsiveness

The gallery allows users to filter and sort projects based on categories, providing easy access to specific types of work.

**4. Smooth Navigation**

The navigation bar includes links to all sections of the website. Smooth scrolling enhances the user experience by providing fluid transitions between sections. Key features include:

- Sticky navigation that stays at the top of the viewport.

- Hover effects and animations for better user interaction.

- Smooth scroll behavior using CSS’s `scroll-behavior` property.

**5. Contact Form with Validation**

The contact section includes a form where users can reach out to me directly. This form includes custom validation to ensure that users enter correct information. Validation features include:

- Regular expression checks for valid email addresses.

- Required field validation for name, email, and message.

- Real-time feedback for incorrect form entries.

**Challenges and Solutions**

**Challenge**: Handling Theme Persistence

**Solution:** By using `localStorage`, I ensured that the user's theme preference (dark or light mode) persists even after they navigate away or refresh the page.

**Challenge:** Creating a Fully Responsive Layout

**Solution:** Implementing `clamp()` for fluid typography, Flexbox, and Grid made the website easily adaptable to various screen sizes, and extensive testing helped fine-tune the layout.

**Conclusion**

This portfolio website project has enabled me to apply various web development skills, particularly in responsive design, UI/UX improvements, and JavaScript functionality. The interactive elements like the project gallery and theme toggle enhance user engagement, while the clean, modern design ensures a professional appearance. This project has been invaluable in solidifying my knowledge of frontend web development and creating a tangible portfolio to showcase my abilities.