**Front-End UI/UX Mini Project**

**1. Title Page**

* **Project Title**: *Personal Portfolio Website*
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* **Reg. No.:** 2463005 , 2463032 , 2463031
* **Program:** B.Tech in Artificial Intelligence and Machine Learning
* **Semester:** 3rd
* **Institution:** Christ University, Kengeri
* **Academic Year:** 2025

**2. Abstract**

This project presents the design and development of a responsive personal portfolio website using HTML and CSS. The website serves as a digital platform for showcasing the developer’s academic background, technical skills, and project work. It comprises four interconnected webpages—Home, About Me, Projects, and Contact—each crafted to highlight different aspects of the developer’s profile. The layout is structured with semantic HTML and styled using modern CSS techniques, including grid systems, responsive design, and hover effects. The project emphasizes clean user interface design, accessibility across devices, and ease of navigation. By hosting the website on GitHub, the developer ensures public accessibility and version control. This portfolio not only reflects the developer’s proficiency in front-end web development but also acts as a professional tool for networking, job applications, and personal branding.

**3. Objectives**

The primary goals of this project are:

* **Design a user-friendly interface** using modern UI principles to enhance user experience and engagement
* **Develop a fully responsive layout** using only HTML and CSS to ensure compatibility across desktops, tablets, and mobile devices
* **Implement structured HTML5 semantic elements** for better readability, maintainability, and SEO optimization
* **Apply CSS styling** for consistent branding, visual layout, and responsive behavior across all pages
* **Ensure accessibility and readability** by following web standards and best practices for inclusive design

**4. Scope of the Project**

This project outlines the boundaries and focusses areas as follows:

* **Focused on front-end design only**, emphasizing layout, structure, and visual presentation
* **No JavaScript or server-side integration** was included; the project is purely static and client-side
* **Intended for desktop, tablet, and mobile viewports**, ensuring responsive behavior across common screen sizes
* **Used only open-source tools and pure code**, relying solely on HTML5 and CSS3 without external libraries or frameworks

**5. Tools & Technologies Used**

|  |  |
| --- | --- |
| Tool/Technology | Purpose |
| HTML5 | Markup and content structure |
| CSS3 | Styling and layout management |
| VS Code | Code editor |
| Chrome DevTools | Testing and debugging |

**6. HTML Structure Overview**

* Used semantic tags: <header>, <nav>, <main>, <section>, <footer>
* Structured into reusable sections: About, Projects, Contact
* Navigation menu using <ul> and anchor links for smooth scrolling

**7. CSS Styling Strategy**

The styling approach for this project was guided by the following principles:

* **Used a mobile-first design strategy**, ensuring optimal performance and layout on smaller screens before scaling up
* **Applied consistent typography and color schemes** to maintain visual identity and readability throughout the site
* **Utilized CSS Grid and Flexbox** for responsive layout structures and dynamic content alignment
* **Implemented hover effects and transitions** to enhance interactivity and user engagement
* **Ensured modular and reusable styles** by organizing CSS rules around semantic HTML elements and class-based selectors

**8. Key Features**

|  |  |
| --- | --- |
| Feature | Description |
| Responsive Design | Adapts seamlessly to all screen sizes |
| Smooth Navigation | Fixed top nav with anchor links |
| Project Cards | Flex-based layout with hover effects |
| Contact Form (non-functional) | Placeholder layout for inputs and button |
| Accessible Fonts & Colors | High contrast and readable typography |

**9. Challenges Faced & Solutions**

|  |  |
| --- | --- |
| Challenge | Solution |
| Overlapping elements on small screens | Used media queries to stack elements |
| Difficulty aligning items using float | Shifted to Flexbox and Grid |
| Typography scaling issue | Used relative units (em/rem) instead of px |

**10. Outcome**

* Achieved a clean, consistent, and visually engaging front-end layout
* All key components function as intended using just HTML and CSS
* Learned about layout responsiveness and UI hierarchy in depth

**11. Future Enhancements**

To further improve the functionality and user experience of the portfolio website, the following enhancements are proposed:

* **Integrate JavaScript** to add dynamic features such as animations, form validation, and interactive elements
* **Implement a backend system** using technologies like Node.js or PHP to enable contact form submissions and content management
* **Add a blog section** to share technical insights, tutorials, and project updates
* **Include dark mode support** for improved accessibility and user preference
* **Optimize for SEO** by adding meta tags, structured data, and performance improvements
* **Deploy on a custom domain** with HTTPS for professional presentation and security
* **Enable multilingual support** to reach a broader audience

**12. Sample Code**

1. **INDEX PAGE**

**<!DOCTYPE html> <!-- Declares the document type as HTML5 -->**

**<html lang="en"> <!-- Sets the language of the document to English -->**

**<head>**

**<meta charset="UTF-8"> <!-- Defines character encoding -->**

**<meta name="viewport" content="width=device-width, initial-scale=1.0"> <!-- Enables responsive design on all devices -->**

**<title>My Portfolio - Home</title> <!-- Sets the title of the webpage -->**

**<link rel="stylesheet" href="styles.css"> <!-- Links external CSS file for styling -->**

**</head>**

**<body>**

**<!-- Header section with navigation bar -->**

**<header>**

**<nav>**

**<h2>My Portfolio</h2> <!-- Website title -->**

**<div>**

**<!-- Navigation links -->**

**<a href="index.html">Home</a>**

**<a href="about.html">About Me</a>**

**<a href="projects.html">Projects</a>**

**<a href="contact.html">Contact</a>**

**</div>**

**</nav>**

**</header>**

**<!-- Hero section with profile image and introduction -->**

**<section class="hero">**

**<img src="https://media-maa2-1.cdn.whatsapp.net/v/t61.24694-24/425196515\_865290161948933\_7081059834157990445\_n.jpg?ccb=11-4&oh=01\_Q5Aa2QGND1jh3H9xYFa47hPirHdzLSUX36kyCuoKOWOIALfHfg&oe=68A92F68&\_nc\_sid=5e03e0&\_nc\_cat=100" alt="Profile Picture"> <!-- Profile image -->**

**<h1>Hello, I'm Alvin Jobi</h1> <!-- Main heading -->**

**<p>Welcome to my personal portfolio. Here you'll find my journey, skills, and projects.</p> <!-- Introductory paragraph -->**

**</section>**

**<!-- Footer section with copyright and social media links -->**

**<footer>**

**<p>© 2025 Alvin Jobi All rights reserved.</p> <!-- Copyright -->**

**<div>**

**<!-- Social media links -->**

**<a href="https://www.linkedin.com/in/alvin-jobi-072588315/">LinkedIn</a> |**

**<a href="https://github.com/alvinjobi4">GitHub</a> |**

**</div>**

**</footer>**

**</body>**

**</html>**

**2.ABOUT ME PAGE**

**<!DOCTYPE html> <!-- Declares the document type as HTML5 -->**

**<html lang="en"> <!-- Sets the language of the document to English -->**

**<head>**

**<!-- Metadata and page setup -->**

**<meta charset="UTF-8"> <!-- Sets character encoding to UTF-8 -->**

**<meta name="viewport" content="width=device-width, initial-scale=1.0"> <!-- Enables responsive scaling on all devices -->**

**<title>About Me</title> <!-- Sets the title of the webpage shown in browser tab -->**

**<link rel="stylesheet" href="styles.css"> <!-- Links external CSS file for styling -->**

**</head>**

**<body>**

**<!-- Header section containing navigation bar -->**

**<header>**

**<nav>**

**<h2>My Portfolio</h2> <!-- Displays the site title -->**

**<div>**

**<!-- Navigation links to other pages -->**

**<a href="index.html">Home</a> <!-- Link to Home page -->**

**<a href="about.html" class="active">About Me</a> <!-- Link to About Me page (currently active) -->**

**<a href="projects.html">Projects</a> <!-- Link to Projects page -->**

**<a href="contact.html">Contact</a> <!-- Link to Contact page -->**

**</div>**

**</nav>**

**</header>**

**<!-- Main content section for About Me -->**

**<section>**

**<h1>About Me</h1> <!-- Section heading -->**

**<p>**

**I am Alvin Jobi, an artificial intelligence enthusiast passionate about building creative projects**

**and solving real-world problems through design and coding.**

**</p> <!-- Personal introduction paragraph -->**

**<!-- Education section -->**

**<h2>Education</h2>**

**<ul>**

**<li>Bachelor's in technology AIML – Christ University Bangalore</li> <!-- Education detail -->**

**</ul>**

**<!-- Skills section -->**

**<h2>Skills</h2>**

**<p>HTML5, CSS3, JavaScript, Responsive Design, Git & GitHub, UI/UX Principles</p> <!-- List of technical skills -->**

**<!-- Interests section -->**

**<h2>Interests</h2>**

**<p>Web design, AI, open-source contribution, traveling, and photography.</p> <!-- List of personal interests -->**

**</section>**

**<!-- Footer section -->**

**<footer>**

**<p>© 2025 Alvin Jobi. All rights reserved.</p> <!-- Copyright -->**

**</footer>**

**</body>**

**</html>**

**3.CONTACT PAGE**

**<!DOCTYPE html> <!-- Declares the document type as HTML5 -->**

**<html lang="en"> <!-- Sets the language of the document to English -->**

**<head>**

**<!-- Metadata and page setup -->**

**<meta charset="UTF-8"> <!-- Sets character encoding to UTF-8 -->**

**<meta name="viewport" content="width=device-width, initial-scale=1.0"> <!-- Enables responsive design on all devices -->**

**<title>Contact Me</title> <!-- Sets the title of the webpage -->**

**<link rel="stylesheet" href="styles.css"> <!-- Links external CSS file for styling -->**

**</head>**

**<body>**

**<!-- Header section with navigation bar -->**

**<header>**

**<nav>**

**<h2>My Portfolio</h2> <!-- Displays the site title -->**

**<div>**

**<!-- Navigation links to other pages -->**

**<a href="index.html">Home</a> <!-- Link to Home page -->**

**<a href="about.html">About Me</a> <!-- Link to About Me page -->**

**<a href="projects.html">Projects</a> <!-- Link to Projects page -->**

**<a href="contact.html" class="active">Contact</a> <!-- Link to Contact page (currently active) -->**

**</div>**

**</nav>**

**</header>**

**<!-- Main content section for contact form -->**

**<section>**

**<h1>Contact Me</h1> <!-- Section heading -->**

**<!-- Contact form -->**

**<form action="#" method="post"> <!-- Form submission setup (placeholder action) -->**

**<input type="text" placeholder="Your Name" required> <!-- Input field for user's name -->**

**<input type="email" placeholder="Your Email" required> <!-- Input field for user's email -->**

**<input type="text" placeholder="Subject" required> <!-- Input field for message subject -->**

**<textarea placeholder="Your Message" rows="5" required></textarea> <!-- Text area for message content -->**

**<input type="submit" value="Send Message"> <!-- Submit button -->**

**</form>**

**</section>**

**<!-- Footer section -->**

**<footer>**

**<p>© 2025 Alvin Jobi. All rights reserved.</p> <!-- Copyright -->**

**</footer>**

**</body>**

**</html>**

**4.PROJECT PAGE**

**<!DOCTYPE html> <!-- Declares the document type as HTML5 -->**

**<html lang="en"> <!-- Sets the language of the document to English -->**

**<head>**

**<!-- Metadata and page setup -->**

**<meta charset="UTF-8"> <!-- Sets character encoding to UTF-8 -->**

**<meta name="viewport" content="width=device-width, initial-scale=1.0"> <!-- Enables responsive design -->**

**<title>My Projects</title> <!-- Sets the title of the webpage -->**

**<link rel="stylesheet" href="styles.css"> <!-- Links external CSS file for styling -->**

**</head>**

**<body>**

**<!-- Header section with navigation bar -->**

**<header>**

**<nav>**

**<h2>My Portfolio</h2> <!-- Displays the site title -->**

**<div>**

**<!-- Navigation links to other pages -->**

**<a href="index.html">Home</a> <!-- Link to Home page -->**

**<a href="about.html">About Me</a> <!-- Link to About Me page -->**

**<a href="projects.html" class="active">Projects</a> <!-- Link to Projects page (currently active) -->**

**<a href="contact.html">Contact</a> <!-- Link to Contact page -->**

**</div>**

**</nav>**

**</header>**

**<!-- Main content section for project listings -->**

**<section>**

**<h1>My Projects</h1> <!-- Section heading -->**

**<!-- Grid container for project cards -->**

**<div class="projects-grid">**

**<!-- Project 1 card -->**

**<article class="project-card">**

**<img src="data:image/png;base64,...(truncated)" alt="Project 1"> <!-- Image for Project 1 -->**

**<h3>Project One</h3> <!-- Project title -->**

**<p>APPLICATION DEVELOPMENT.</p> <!-- Project description -->**

**</article>**

**<!-- Project 2 card -->**

**<article class="project-card">**

**<img src="data:image/png;base64,...(truncated)" alt="Project 2"> <!-- Image for Project 2 -->**

**<h3>Project Two</h3> <!-- Project title -->**

**<p>WEB DEVELOPMENT</p> <!-- Project description -->**

**</article>**

**<!-- Project 3 card -->**

**<article class="project-card">**

**<img src="data:image/png;base64,...(truncated)" alt="Project 3"> <!-- Image for Project 3 -->**

**<h3>Project Three</h3> <!-- Project title -->**

**<p>KALI LINUX</p> <!-- Project description -->**

**</article>**

**</div> <!-- End of projects grid -->**

**</section>**

**<!-- Footer section -->**

**<footer>**

**<p>© 2025 ALVIN JOBI. All rights reserved.</p> <!-- Copyright -->**

**</footer>**

**</body>**

**</html>**

**5.CSS CODE**

**/\* Reset default margin and padding for all elements \*/**

**\* {**

**margin: 0;**

**padding: 0;**

**box-sizing: border-box; /\* Ensures consistent box sizing across elements \*/**

**}**

**/\* Base body styling \*/**

**body {**

**font-family: 'Poppins', sans-serif; /\* Sets font style \*/**

**line-height: 1.6; /\* Improves readability \*/**

**background-color: #f9f9f9; /\* Light background color \*/**

**color: #333; /\* Dark text color for contrast \*/**

**}**

**/\* ===================== Navigation ===================== \*/**

**/\* Header styling \*/**

**header {**

**background: #004aad; /\* Blue background \*/**

**color: white; /\* White text \*/**

**padding: 1rem 0; /\* Vertical padding \*/**

**position: sticky; /\* Sticks to top on scroll \*/**

**top: 0;**

**z-index: 10; /\* Ensures it stays above other content \*/**

**}**

**/\* Navigation container \*/**

**nav {**

**max-width: 1100px; /\* Limits width \*/**

**margin: auto; /\* Centers nav \*/**

**display: flex; /\* Flex layout for horizontal alignment \*/**

**justify-content: space-between; /\* Space between logo and links \*/**

**align-items: center; /\* Vertically center items \*/**

**padding: 0 20px; /\* Horizontal padding \*/**

**}**

**/\* Site title styling \*/**

**nav h2 {**

**font-weight: 600; /\* Bold title \*/**

**}**

**/\* Navigation links \*/**

**nav a {**

**color: white; /\* White text \*/**

**text-decoration: none; /\* Removes underline \*/**

**margin: 0 15px; /\* Spacing between links \*/**

**font-weight: 500; /\* Medium font weight \*/**

**}**

**/\* Hover effect for links \*/**

**nav a:hover {**

**text-decoration: underline; /\* Adds underline on hover \*/**

**}**

**/\* ===================== Hero Section ===================== \*/**

**.hero {**

**text-align: center; /\* Center-align content \*/**

**padding: 2rem; /\* Adds spacing around hero section \*/**

**}**

**/\* Profile image styling \*/**

**.hero img {**

**width: 150px; /\* Fixed width \*/**

**border-radius: 50%; /\* Circular image \*/**

**}**

**/\* Hero heading \*/**

**.hero h1 {**

**margin-top: 1rem; /\* Space above heading \*/**

**font-size: 2rem; /\* Larger font size \*/**

**}**

**/\* ===================== Section Layout ===================== \*/**

**section {**

**max-width: 1100px; /\* Limits width \*/**

**margin: 2rem auto; /\* Vertical spacing and center alignment \*/**

**padding: 0 20px; /\* Horizontal padding \*/**

**}**

**/\* Grid layout for projects \*/**

**.projects-grid {**

**display: grid; /\* Enables grid layout \*/**

**grid-template-columns: repeat(auto-fit, minmax(250px, 1fr)); /\* Responsive columns \*/**

**gap: 20px; /\* Space between grid items \*/**

**}**

**/\* Individual project card styling \*/**

**.project-card {**

**background: white; /\* White background \*/**

**padding: 1rem; /\* Internal spacing \*/**

**border-radius: 8px; /\* Rounded corners \*/**

**box-shadow: 0 2px 5px rgba(0,0,0,0.1); /\* Subtle shadow \*/**

**text-align: center; /\* Center-align text \*/**

**}**

**/\* Project image styling \*/**

**.project-card img {**

**width: 100%; /\* Full width of card \*/**

**border-radius: 5px; /\* Slightly rounded corners \*/**

**}**

**/\* ===================== Buttons ===================== \*/**

**/\* Styling for buttons and submit inputs \*/**

**button, input[type=submit] {**

**background: #004aad; /\* Blue background \*/**

**color: white; /\* White text \*/**

**border: none; /\* No border \*/**

**padding: 10px 20px; /\* Internal spacing \*/**

**cursor: pointer; /\* Pointer cursor on hover \*/**

**border-radius: 5px; /\* Rounded corners \*/**

**}**

**/\* Hover effect for buttons \*/**

**button:hover, input[type=submit]:hover {**

**background: #003080; /\* Darker blue on hover \*/**

**}**

**/\* ===================== Contact Form ===================== \*/**

**/\* Form layout \*/**

**form {**

**display: grid; /\* Grid layout for form fields \*/**

**gap: 10px; /\* Space between fields \*/**

**}**

**/\* Input and textarea styling \*/**

**input, textarea {**

**padding: 8px; /\* Internal spacing \*/**

**border: 1px solid #ccc; /\* Light border \*/**

**border-radius: 5px; /\* Rounded corners \*/**

**}**

**/\* ===================== Footer ===================== \*/**

**footer {**

**text-align: center; /\* Center-align text \*/**

**padding: 1rem; /\* Internal spacing \*/**

**background: #004aad; /\* Blue background \*/**

**color: white; /\* White text \*/**

**margin-top: 2rem; /\* Space above footer \*/**

**}**

**/\* Footer link styling \*/**

**footer a {**

**color: white; /\* White text \*/**

**margin: 0 10px; /\* Spacing between links \*/**

**}**

**/\* ===================== Smooth Scrolling ===================== \*/**

**html {**

**scroll-behavior: smooth; /\* Enables smooth scroll effect \*/**

**}**

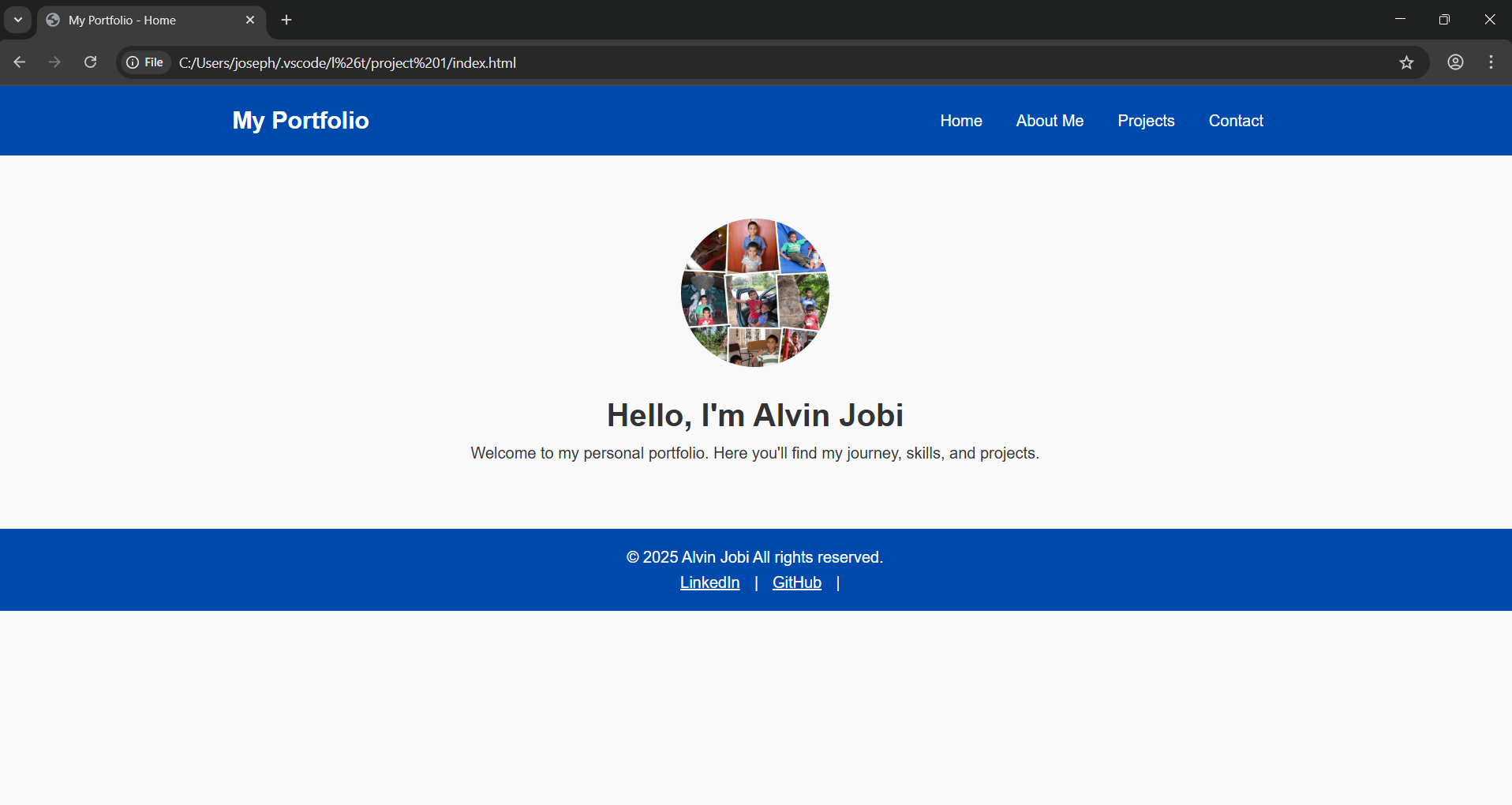
**/\* ===================== Responsive Design ===================== \*/**

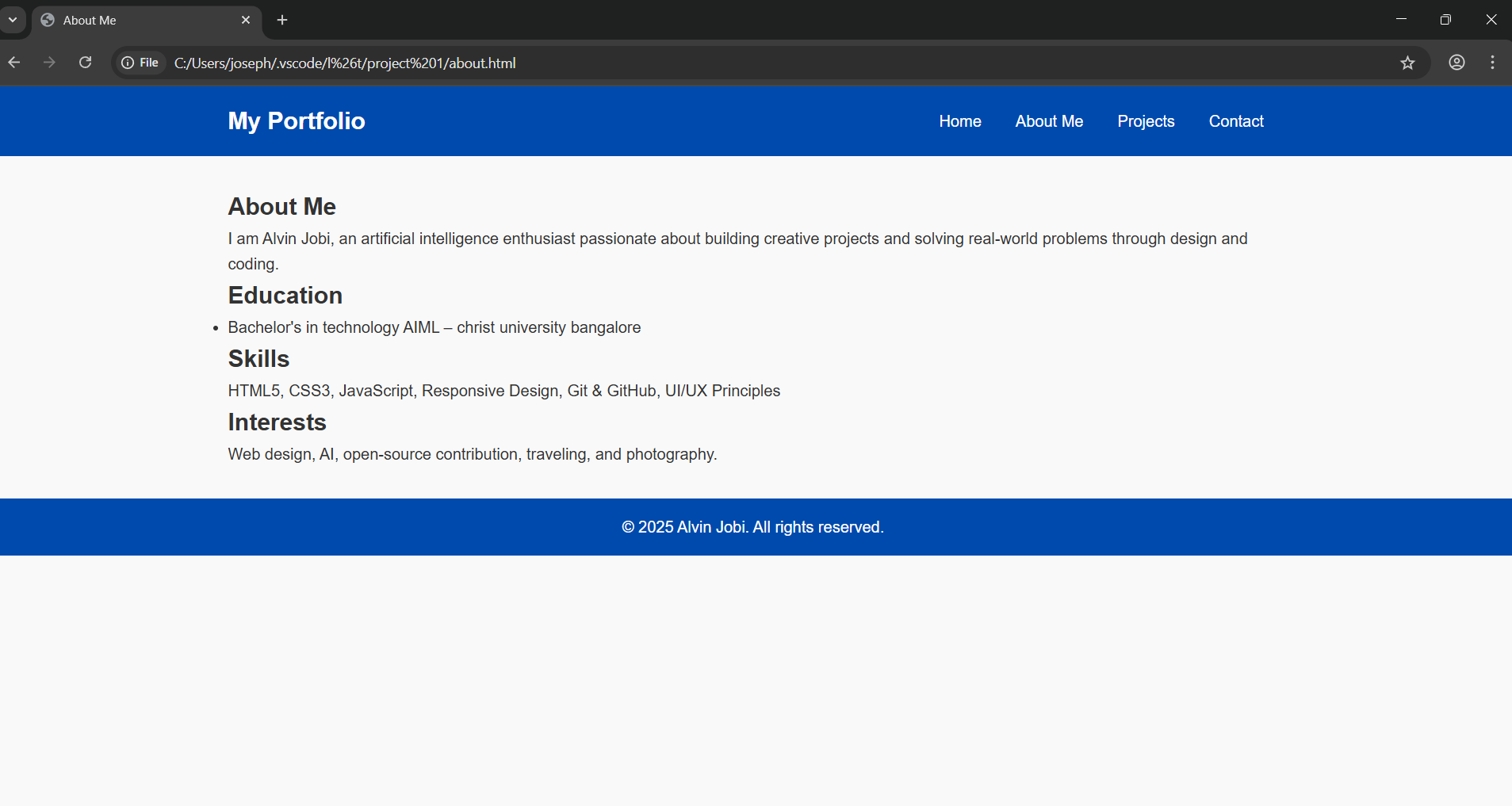
**/\* Responsive navigation layout for smaller screens \*/**

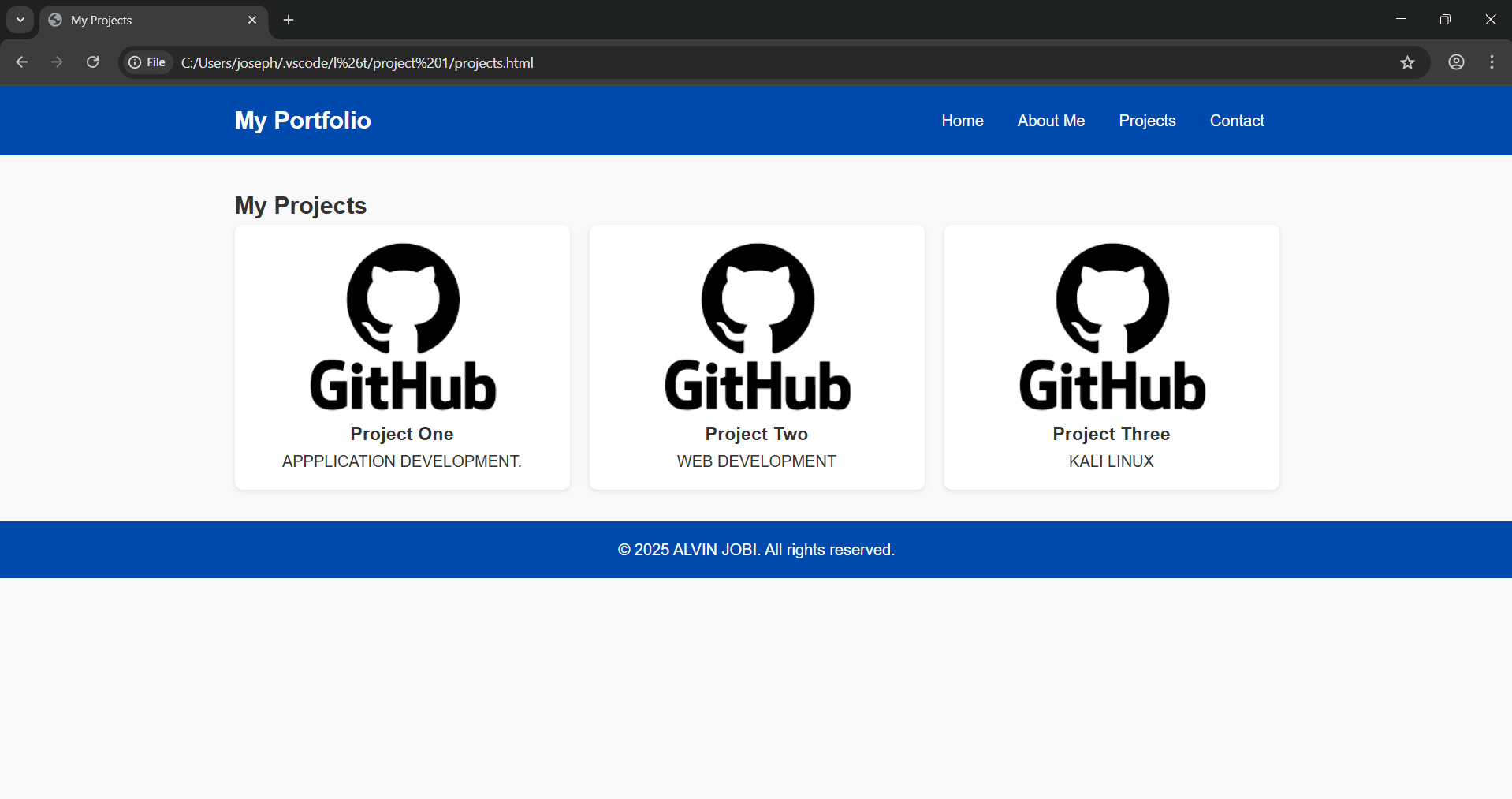
**@media (max-width: 768px) {**

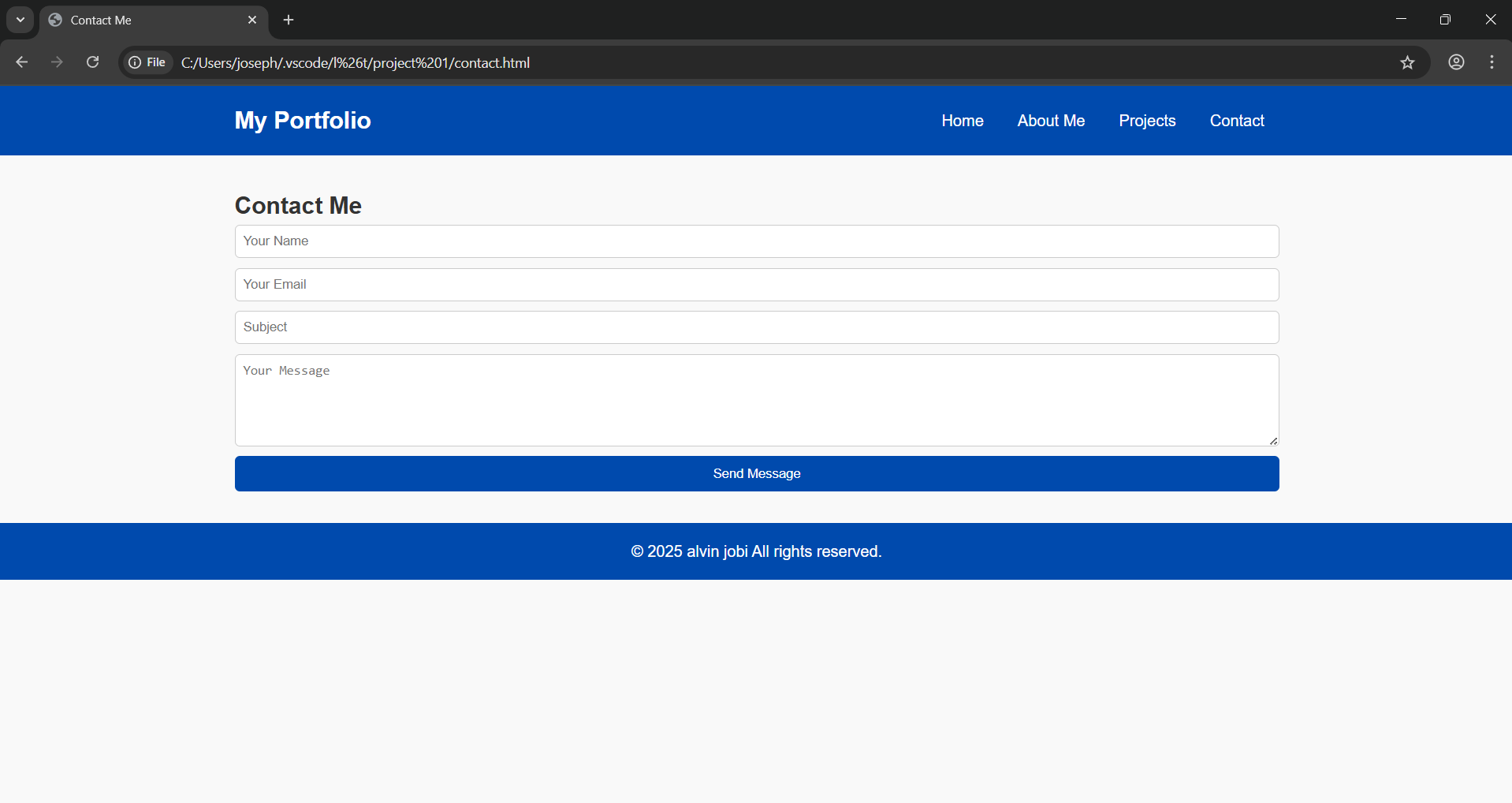
**nav**

**13. Screenshots of Final Output**









**14. Conclusion**

The personal portfolio website successfully showcases the developer’s skills and projects. It serves as a professional platform for networking, job applications, and personal branding.

**15. References**

* [LinkedIn Profile](https://www.linkedin.com/in/alvin-jobi-072588315/)
* [GitHub Profile](https://github.com/alvinjobi4)
* W3Schools HTML & CSS Documentation
* Mozilla Developer Network (MDN)