Front-End UI/UX Mini Project

 Project Title: Responsive Portfolio Website for a Freelancer

Submitted By:

Team Members: Abhishan Francis, Abel Alexander, Mishael Julian

Roll number: 2462835, 2462004, 2462184

College E-mail ID: abhishan.francis@btech.christuniversity.in

abel.alexander@btech.christuniversity.in

mishael.julian@btech.christuniversity.in

Course: UI/UX Design Fundamentals

Instructor Name: Dhiraj A.

Institution: Christ University

Date of Submission: 26/09/2025

Abstract

This report details the development of a responsive, single-page personal portfolio website created using only core front-end technologies: HTML5 and CSS3. The key goal of the project is to establish a professional and polished digital presence that effectively showcases technical skills, a curated collection of completed projects, and contact information. The project aims to design and develop a responsive personal portfolio website using only HTML and CSS. The website showcases the user's skills, projects, resume, and contact form. The focus was on creating a clean user interface, ensuring a fully responsive layout, and maintaining a clear visual hierarchy. The final outcome is a static website that is visually engaging, user-friendly, and fully accessible across desktops, tablets, and mobile devices, demonstrating a strong understanding of foundational web development principles.

1. Objectives

The primary objectives for this project were clearly defined to guide the development process:

- Develop a fully responsive single-page website layout using only HTML5 and CSS3 principles.

- Create a structured, semantic, and accessible content layout using HTML5.

- Apply modern CSS techniques, including Flexbox and Grid, for complex layout management and responsiveness.

- Design a clean, visually consistent, and engaging user interface that showcases personal projects and skills effectively.

- Ensure the final website provides a seamless user experience on all major device viewports, from large desktops to small mobile screens.

2. Scope of the Project

The project is exclusively focused on front-end design and development. The scope is defined by the following boundaries:

- **In-Scope:** The project includes the design and implementation of the user interface, content structure, and responsive layout. It is intended for viewing on desktop, tablet, and mobile browsers.

- **Out-of-Scope:** There is no JavaScript or any client-side scripting involved. Interactivity is limited to CSS capabilities (e.g., hover effects, transitions). Furthermore, no server-side integration or backend functionality, such as processing a contact form, is included.

3. Tools & Technologies Used

The project was built using a minimal and foundational set of web technologies and tools:

- **HTML5:** Used for creating the semantic markup and structuring the content of the website.

- **CSS3:** Used for all styling, including layout management (Flexbox/Grid), responsive design (media queries), typography, colors, and animations.

- **Visual Studio Code (VS Code):** The primary code editor used for writing and organizing the project files.

- **Chrome DevTools:** Extensively used for debugging CSS, testing responsiveness across different viewports, and inspecting the DOM.

4. HTML Structure Overview

The website's structure is built upon semantic HTML5 elements to ensure accessibility and a well-organized Document Object Model (DOM).

- The page is organized into logical, reusable sections such as <header>, <nav>, <main>, and <footer>.

- The main content is further divided into distinct <section> elements for "About," "Projects," and "Contact."

- Heading elements (<h1>, <h2>, etc.) are used hierarchically to structure the page content logically, improving SEO and accessibility.

- A navigation menu using <nav> and <ul> allows users to jump to different sections of the single-page layout via anchor links.

```html
            <div class="card">
                <img src="images/expense tracker.png" class="card-img-top" alt="Project 2">
                <div class="card-body">
                    <h5 class="card-title"><b>ExpenseTracker (Web App)</b></h5>
                    <p class="card-text">A smart Question-Answering system that uses Natural Language Processing (NLP) to provide accurate answers from documents.</p>
                    <a href="https://falconishere.github.io/ExpenseTracker/" class="btn btn-primary">View Project</a>
                </div>
            </div>
        </div>
        <div class="col-md-4 mb-4">
            <div class="card">
                <img src="images/MovieWeb.png" class="card-img-top" alt="Project 3">
                <div class="card-body">
                    <h5 class="card-title"><b>Movie Info Webpage</b></h5>
                    <p class="card-text">A dynamic webpage that fetches and displays movie details such as ratings, cast, and trailers using an external API.</p>
                    <a href="https://falconishere.github.io/Movie-info/" class="btn btn-primary">View Project</a>
                </div>
            </div>
        </div>
    </div>
</div>
</section>

<section id="contact" class="py-5">
    <div class="container">
        <h2 class="text-center mb-4">Contact Me</h2>
        <div class="row">
            <div class="col-md-8 mx-auto">
                <form id="contactForm">
                    <div class="mb-3">
                        <label for="name" class="form-label">Name</label>
                        <input type="text" class="form-control" id="name" required>
                    </div>
                    <div class="mb-3">
                        <label for="email" class="form-label">Email Address</label>
                        <input type="email" class="form-control" id="email" required>
                    </div>
                    <div class="mb-3">
                        <label for="message" class="form-label">Message</label>
                        <textarea class="form-control" id="message" rows="5" required></textarea>
                    </div>
                    <div class="text-center">
                        <button type="submit" class="btn btn-primary">Submit</button>
                    </div>
                </form>
            </div>
        </div>
    </div>
</section>

<footer class="bg-dark text-white text-center py-3">
    <div class="container">
        <p>&copy; 2025 Stephen Job. All Rights Reserved.</p>
    </div>
</footer>

<script src="https://code.jquery.com/jquery-3.7.1.min.js"></script>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js"></script>
<script src="script.js"></script>
</body>
</html>
```

5. CSS Styling Strategy

An external stylesheet (style.css) was used to manage all styling rules, keeping content and presentation separate.

- **Organization:** The CSS file is organized with comments and divided into sections for general styling (body, typography), header, navigation, sections, and media queries for maintainability.

- **Layout Techniques:** The project heavily relies on modern CSS layout techniques. **CSS Flexbox** and **Grid** were used to create flexible and robust layouts for the project cards and page sections, overcoming the alignment and scaling challenges often faced with older methods like floats.

- **Responsive Design:** A mobile-first approach was adopted. Media queries are used extensively to adapt the layout, font sizes, and element spacing for different screen sizes, ensuring a consistent experience on all devices.

```
Code    Blame    37 lines (32 loc) · 736 Bytes

1       /* General Body Styles */
2       body {
3           padding-top: 56px; /* Adjust for the fixed navbar height */
4           font-family: 'Helvetica Neue', Arial, sans-serif;
5       }
6
7       /* Section Padding */
8       section {
9           padding: 60px 0;
10      }
11
12      /* About Me Section */
13      .profile-pic {
14          width: 200px;
15          height: 200px;
16          object-fit: cover;
17          border: 5px solid #fff;
18          box-shadow: 0 0 10px rgba(0,0,0,0.1);
19      }
20
21      /* Portfolio Card Hover Effect */
22      .card {
23          transition: transform 0.3s ease, box-shadow 0.3s ease;
24      }
25
26      .card:hover {
27          transform: translateY(-10px);
28          box-shadow: 0 10px 20px rgba(0,0,0,0.15);
29      }
30
31      /* Contact Form Styling */
32      #contactForm {
33          background: #f8f9fa;
34          padding: 30px;
35          border-radius: 8px;
36          box-shadow: 0 0 15px rgba(0,0,0,0.05);
37      }
```

- **Custom Properties:** CSS variables (custom properties) were used to define a consistent color scheme for theme customization, making it easy to manage colors for elements like text, backgrounds, and links.

6. Key Features

- **Responsive Design:** The layout seamlessly adapts to all screen sizes, from mobile phones to widescreen desktops.

- **Fixed Top Navigation:** A sticky navigation bar remains fixed at the top of the viewport for easy access to all sections of the page using anchor links.

- **Project Cards:** Projects are displayed in a clean card-based layout built with Flexbox, which includes hover effects to provide interactive feedback to the user.

- **Contact Form:** A non-functional contact form is included, serving as a placeholder layout for user inputs. It is styled to be consistent with the website's design.

- **Accessible Design:** The project incorporates accessible fonts, high-contrast colors, and readable typography to ensure the content is usable for a wide audience.

7. Overcoming Layout Challenges

A primary difficulty in this project was achieving a complex, responsive layout without the aid of a CSS framework or JavaScript. Aligning items correctly within the project gallery, especially on varying screen sizes, proved challenging using older float-based methods. This difficulty was overcome by shifting to modern CSS layout models. Using CSS Flexbox and Grid significantly simplified the process of creating dynamic and scalable layouts. Media queries were then applied to re-stack elements and adjust spacing on smaller screens, ensuring the design remained clean and functional.

8. Outcomes & Learning

The project successfully resulted in a clean, consistent, and visually engaging front-end layout that functions as intended across all target devices. Through this project, we gained practical insights into responsive design, semantic layout structuring, and modern user interface aesthetics. The hands-on implementation of design principles using only HTML5 and CSS3 enhanced our understanding of core web technologies and the importance of building responsive, mobile-first websites from the ground up.

9. Future Enhancements

While the current project meets its objectives, several enhancements could be implemented in the future:

- Add JavaScript for Interactivity: Integrate JavaScript to add dynamic features such as client-side validation for the contact form, smooth scrolling, and dynamic content rendering.

- Backend Integration: Implement a backend service (e.g., Node.js or EmailJS) to make the contact form fully functional, allowing submissions to be sent to an email address.

- Integrate Animations: Use CSS animations or a JavaScript library like AOS (Animate On Scroll) to add more sophisticated transitions and make the user experience more engaging.

- Theme Toggler: Add a light/dark mode theme toggler to improve user accessibility and personalization.
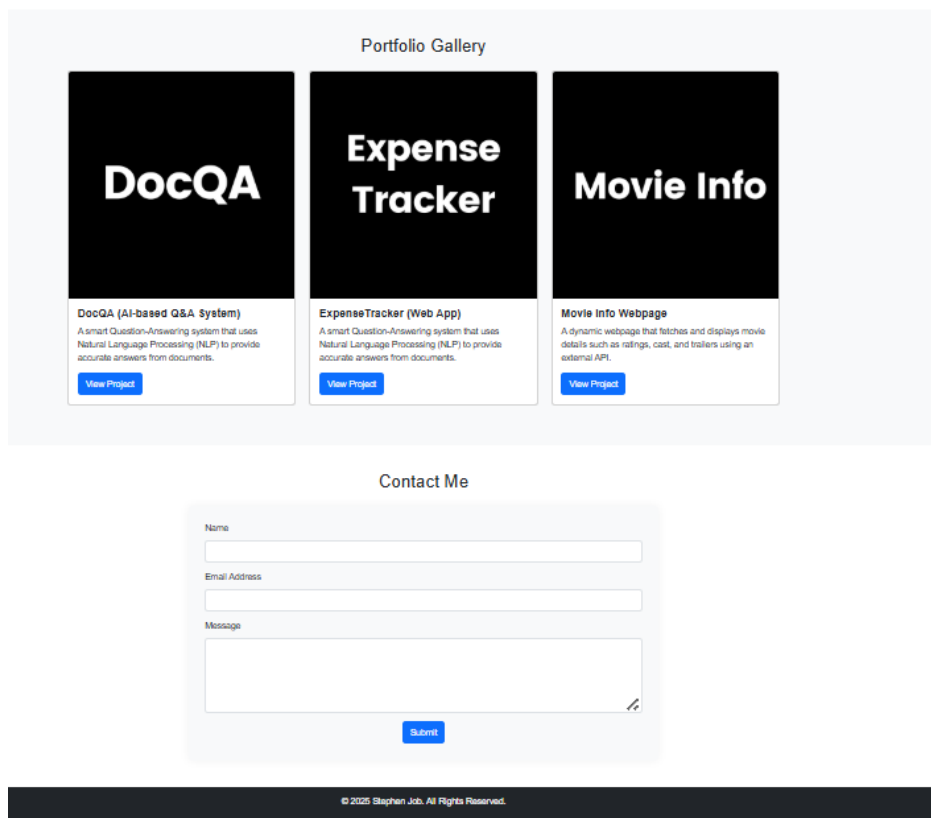
10. Screenshots of Final Outcome

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(This section would include 3-4 screenshots of the final project, showcasing the website's appearance on different devices.)

- Screenshot 1: The main landing view of the website, showing the header and "About Me" section on a desktop view.
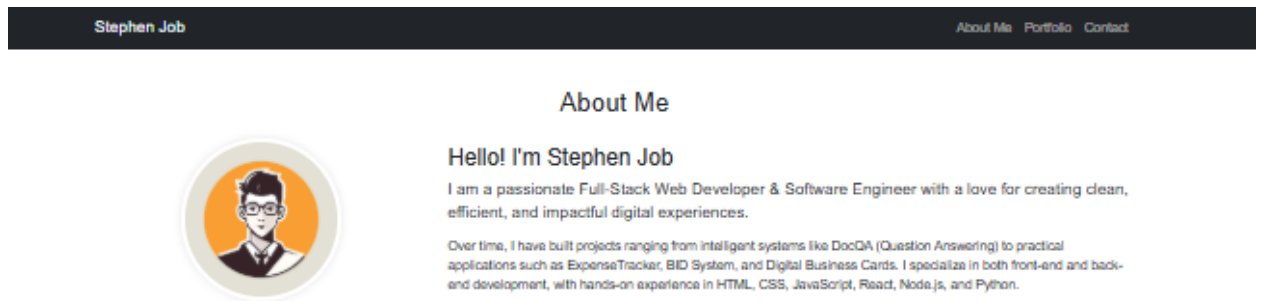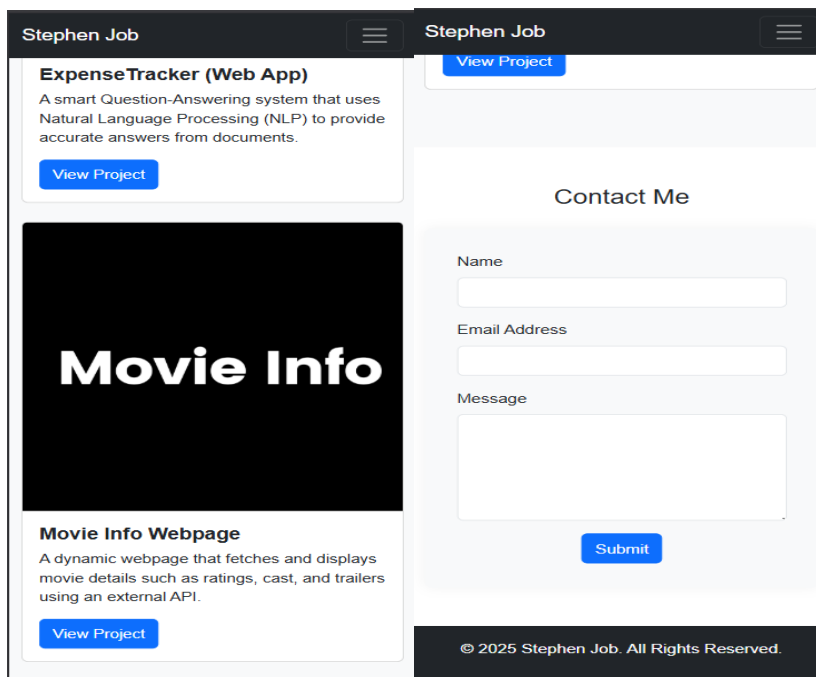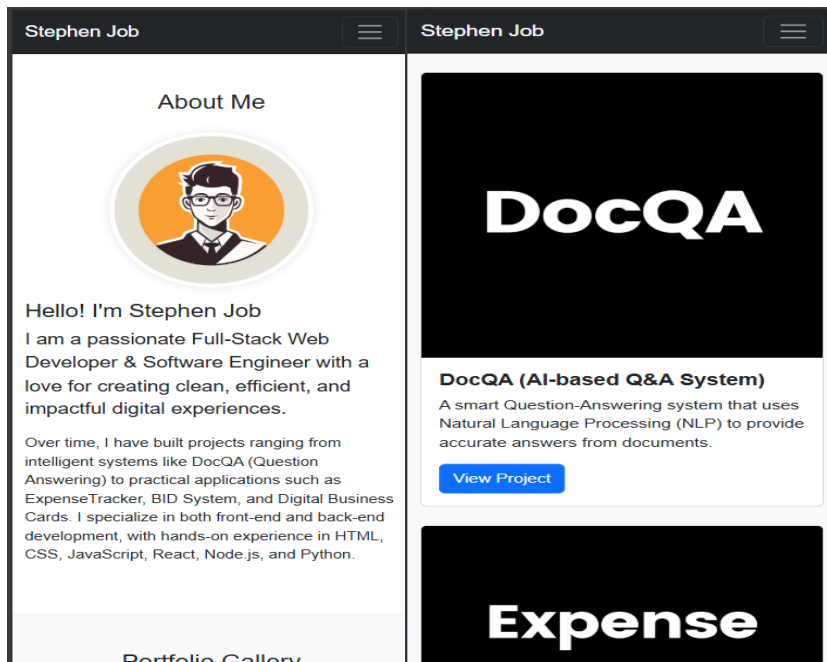

- Screenshot 2: The card-based portfolio gallery, highlighting the project layout and hover effects.

- Screenshot 3: The website's responsive layout as viewed on a mobile device, demonstrating how elements stack vertically for readability.

11. References

- L&T LMS: https://larsen-toubro.edcast.com/landing/mycourse