

Established – 1961

Subject: WEB

SEVA SADAN'S

R. K. TALREJA COLLEGE

OF

ARTS, SCIENCE & COMMERCE

ULHASNAGAR – 421 003



CERTIFICATE

This is to certify that Mr./Ms. Pranav Santosh Sawant of F.Y. Information Technology (FYIT) Roll No. 2541041 has satisfactorily completed the Web Designing Mini Project entitled Portfolio with jQuery Traversal & DOM Manipulation during the academic year 2025 – 2026, as a part of the practical requirement. The project work is found to be satisfactory and is approved for submission.

PROF. INCHARGE

Prof. Sahil Shukla

HEAD OF DEPT

Prof. Laxmi Jaswani

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➤ Introduction

The "Portfolio with jQuery Traversal & DOM Manipulation" project is a comprehensive, responsive, multi-page personal website designed to showcase web development skills, projects, and professional details. The application includes distinct sections such as Home, About, Projects, Skills, and Hire Me. The primary objective of this project is to demonstrate advanced frontend capabilities, specifically focusing on dynamic Document Object Model (DOM) manipulation, event handling, and node traversal utilizing the jQuery library.

Live Project Link: The deployed application is publicly accessible at <https://itxpranav61.github.io/sahil-master-portfolio-Pranav-Sawant-portfolio-/>.

➤ Requirement Specification

2.1 Hardware Requirements

- **Processor:** Intel Core i3 / AMD Ryzen 3 or higher.
- **RAM:** 4 GB minimum (8 GB recommended).
- **Storage:** 100 MB of free disk space.

2.2 Software Requirements

- **Operating System:** Windows, macOS, or Linux.
- **Development Environment:** Visual Studio Code or any standard text editor.
- **Web Browser:** Google Chrome, Mozilla Firefox, or Safari (with JavaScript enabled).
- **Libraries:** jQuery (v3.7.1).

2.3 Functional Requirements

- **Theme Customization:** Users must be able to toggle between Dark Mode and Light Mode, altering global CSS variables.
- **Project Filtering:** The portfolio must allow users to filter project cards dynamically by category (Web, JS, C/C++),

Experiments).

- **Dynamic Logging:** The system must capture and log user interactions (e.g., navigation, filtering, form submissions) in a dedicated UI console.
- **Contact Interface:** A functional frontend contact form that captures user input, prevents default submission, and provides visual success feedback.
- **Clipboard Integration:** Users should be able to copy the developer's email address to their clipboard with a single click.

2.4 Non-Functional Requirements

- **Responsiveness:** The layout must adapt to various screen sizes using flexible grids and media queries.
- **Aesthetics:** The user interface must employ "Glassmorphism" principles (translucent backgrounds, background blur, and subtle borders).

➤ System Design

The system architecture follows a pure client-side model.

- **UI/UX Design:** The visual design utilizes a modern, dark-themed base with an animated radial gradient background. Elements are styled using a .glass utility class that applies backdrop-filter: blur(10px) to create a frosted glass effect.
- **Component Structure:**
 - index.html: Hero section with a split layout, call-to-action buttons, and social links.
 - about.html: Detailed professional background and education history.
 - projects.html: Interactive grid of project cards with filtering controls.
 - skills.html: Categorized grid displaying technical proficiencies.

- hire.html: Contact form and availability status.

➤ System Implementation

The core logic of the application is driven by jQuery to ensure cross-browser compatibility and concise DOM manipulation.

4.1 DOM Traversal Techniques

The project extensively utilizes jQuery traversal methods to navigate the DOM tree efficiently:

- **Sibling and Parent Navigation:** When a navigation link is clicked, the script uses `$(this).parent().siblings().find("a").removeClass("active")` to ensure only the selected tab is highlighted.
- **Child Element Targeting:** The project filtering mechanism uses `$(".projects-grid").children(".project-card")` to isolate and animate specific project cards based on data-type attributes.
- **Adjacent Element Traversal:** Clicking on a project card triggers `next()` and `prev()` functions to identify and log adjacent projects in the grid.

4.2 Dynamic DOM Manipulation

- **Element Creation:** Users can dynamically generate new project cards via the "+ Add Project" button. The script constructs a new `<article>` node in memory and appends it to the DOM using the `after()` method on the last existing card.
- **CSS Manipulation:** Form submission triggers a sequence of inline CSS updates using `.css()` and `.delay()` coupled with a `.queue()` function to create a temporary highlight effect on the parent section.
- **Content Updates:** The footer copyright year is dynamically injected upon load using `$("#year").text(new Date().getFullYear())`.

➤ **Program:**

5.1 index.html

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
  <title>Pranav | jQuery Portfolio</title>
  <link rel="preconnect" href="https://fonts.googleapis.com">
  <link rel="preconnect" href="https://fonts.gstatic.com"
crossorigin>
  <link
    href="https://fonts.googleapis.com/css2?family=Poppins:wght
@400;600;700&family=Inter:wght@400&display=swap"
    rel="stylesheet">
  <link rel="stylesheet" href="style.css">
  <script src="https://code.jquery.com/jquery-
3.7.1.min.js"></script>

</head>

<body>
  <header>
    <nav class="glass">
      <div class="logo">Pranav.dev</div>
      <ul>
        <li><a href="index.html" class="nav-link
active">Home</a></li>
        <li><a href="about.html" class="nav-
link">About</a></li>
```

```
<li><a href="projects.html" class="nav-link">Projects</a></li>
    <li><a href="skills.html" class="nav-link">Skills</a></li>
        <li><a href="hire.html" class="nav-link">Hire Me</a></li>
            <li><button id="theme-toggle" class="filter-btn" style="padding: 0.5rem 1rem;">Light Mode</button></li>
        </ul>
    </nav>
</header>

<main class="home-main">
    <div class="home-container">
        <div class="hero-split">
            <div class="hero-left">
                <div class="status-row">
                    <span class="role-text"><span class="bullet">•</span>
Web Developer</span>
                    <span class="status-badge-green"><span class="status-dot-green"></span> AVAILABLE FOR WORK</span>
                </div>
            <h1 class="cta-title-split">I'm Pranav</h1>
            <p class="cta-subtitle-split">
                Web Developer from India . Currently building clean interfaces and interactive features.
            </p>
            <div class="cta-buttons">
                <button class="action-btn primary"
onclick="window.location.href='hire.html'">
                    <svg width="20" height="20" viewBox="0 0 24 24"
fill="none" stroke="currentColor" stroke-width="2"
                    stroke-linecap="round" stroke-linejoin="round">
                    <circle cx="12" cy="12" r="10"></circle>
```

```
        <line x1="12" y1="8" x2="12" y2="16"></line>
        <line x1="8" y1="12" x2="16" y2="12"></line>
    </svg>
    Hire Me
</button>
<button id="copy-email-btn" class="action-btn secondary" data-email="sawantpranav610@gmail.com">
    <svg width="20" height="20" viewBox="0 0 24 24" fill="none" stroke="currentColor" stroke-width="2" stroke-linecap="round" stroke-linejoin="round">
        <rect x="9" y="9" width="13" height="13" rx="2" ry="2"></rect>
        <path d="M5 15H4a2 2 0 0 1-2-2V4a2 2 0 0 1 2-2h9a2 2 0 0 1 2 2v1"></path>
    </svg>
    Copy Email
</button>
</div>
</div>

<div class="hero-right">
    <div class="avatar-container-large">
        
    </div>
    </div>
</div>

<div class="cta-section glass"
    style="margin-top: 4rem; margin-bottom: 2rem; padding: 3rem; border-radius: 20px; width: 100%; max-width: 800px;">
    <h2 class="cta-title" style="font-size: 3.5rem;">Let's work together.</h2>
    <p class="cta-subtitle">Creating user experience and visual appealing design</p>
</div>
```

```
<div class="social-bar-home glass">
  <div class="social-left">
    <span class="status-dot"></span>
    <span class="follow-text">Follow Me</span>
  </div>
  <div class="social-right">
    <!-- X (Twitter) -->
    <a href="https://x.com/PSawant97297" class="social-icon" aria-label="X" target="_blank">
      <svg width="20" height="20" viewBox="0 0 24 24"
fill="none" stroke="currentColor" stroke-width="2"
        stroke-linecap="round" stroke-linejoin="round">
        <path d="M4 4l11.733 16h4.267l-11.733 -16z" />
        <path d="M4 20l6.768 -6.768m2.46 -2.46l6.772 -
6.772" />
      </svg>
    </a>
    <!-- Instagram -->
    <a
      href="https://www.instagram.com/pranav_sawant863/">
      <span class="social-icon" aria-label="Instagram" target="_blank">
        <svg width="20" height="20" viewBox="0 0 24 24"
fill="none" stroke="currentColor" stroke-width="2"
          stroke-linecap="round" stroke-linejoin="round">
          <rect x="2" y="2" width="20" height="20" rx="5"
            ry="5"></rect>
          <path d="M16 11.37A4 4 0 1 1 12.63 8 4 4 0 0 1 16
11.37z"></path>
          <line x1="17.5" y1="6.5" x2="17.51"
            y2="6.5"></line>
        </svg>
      </a>
      <!-- Dribbble (placeholder as requested in design image,
though previously removed, adding back for visual match or
```

we can skip if user hates it. Image shows Dribbble icon. I'll add it for fidelity to image, but can remove.) -->

<!-- Skipping Dribbble to respect previous "don't add third icon" preference, preserving user preference over image fidelity for that specific detail unless asked. -->

```
<!-- LinkedIn -->
<a href="https://www.linkedin.com/in/pranav-sawant-2a95343a9/" class="social-icon" aria-label="LinkedIn">
    <svg width="20" height="20" viewBox="0 0 24 24" fill="none" stroke="currentColor" stroke-width="2" stroke-linecap="round" stroke-linejoin="round">
        <path d="M16 8a6 6 0 0 1 6 6v7h-4v-7a2 2 0 0 0-2-2 2 2 0 0 0-2 2v7h-4v-7a6 6 0 0 1 6-6z"></path>
        <rect x="2" y="9" width="4" height="12"></rect>
        <circle cx="4" cy="4" r="2"></circle>
    </svg>
</a>
</div>
</div>
```

```
<footer class="home-footer">
    &copy; <span id="year"></span> Pranav • Built with
    HTML, CSS, and jQuery
```

```
</footer>
</div>
</main>
```

```
<script src="script.js"></script>
</body>
```

```
</html>
```

5.2 about.html

```
<!DOCTYPE html>
<html lang="en">
```

```
<head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
    <title>About Me | Pranav</title>
    <link rel="preconnect" href="https://fonts.googleapis.com">
        <link rel="preconnect" href="https://fonts.gstatic.com"
crossorigin>
    <link
        href="https://fonts.googleapis.com/css2?family=Poppins:wght
@400;600;700&family=Inter:wght@400&display=swap"
        rel="stylesheet">
    <link rel="stylesheet" href="style.css">
    <script src="https://code.jquery.com/jquery-
3.7.1.min.js"></script>
</head>
```

```
<body>
    <header>
        <nav class="glass">
            <div class="logo">Pranav.dev</div>
            <ul>
                <li><a href="index.html" class="nav-
link">Home</a></li>
                <li><a href="about.html" class="nav-link
active">About</a></li>
                <li><a href="projects.html" class="nav-
link">Projects</a></li>
                <li><a href="skills.html" class="nav-
link">Skills</a></li>
                <li><a href="hire.html" class="nav-link">Hire
Me</a></li>
                <li><button id="theme-toggle" class="filter-btn"
style="padding: 0.5rem 1rem;">Light Mode</button></li>
            </ul>
```

```
</nav>
</header>

<main>
  <section id="about-detailed" class="glass">
    <h2>About Me</h2>
    <div class="contact-wrapper">

      <div class="contact-left">
        <p>
          Hello! I'm <strong>Pranav</strong>, a
          passionate Web Developer based in New York. I am currently
          pursuing my BSc in Information Technology,
          where I am building a robust foundation in computer
          science principles, programming, and software
          development.
        </p>
        <div class="hero-image" style="margin: 2rem
auto; width: 250px; height: 250px;">
          
        </div>
        <p>
          My journey into coding began with a curiosity
          for how things work on the web. That curiosity
          quickly turned into a dedicated pursuit of
          mastering technologies like <strong>HTML, CSS,
          JavaScript, and jQuery</strong>. I love
          creating clean, responsive, and user-friendly
          interfaces that provide real value to users.
        </p>
      <h3>
```

```
        Education</h3>
        <ul style="list-style: none; color: var(--text-main);">
            <li
                style="margin-bottom: 1rem; padding-left: 1rem; border-left: 2px solid var(--accent-color);">
                    <strong>BSc in Information Technology</strong><br>
                    <span style="font-size: 0.9rem; color: var(--text-muted);">Current</span>
                </li>
            </ul>

            <h3
                style="margin-top: 2rem; margin-bottom: 1rem; color: var(--text-heading); font-family: 'Poppins', sans-serif;">
                Interests</h3>
            <p>
                Beyond coding, I am an avid learner. I enjoy exploring new web technologies, contributing to open-source discussions, and solving algorithmic problems to sharpen my logic. When I'm not at my computer, you might find me exploring the city or reading about the latest trends in tech.
            </p>
        </div>

        <div class="social-sidebar">
            <div class="social-icons-vertical">
                <!-- X (Twitter) -->
                <a href="https://x.com/PSawant97297" class="social-btn" aria-label="X" target="_blank">
                    <svg width="20" height="20" viewBox="0 0 24 24" fill="none" stroke="currentColor">
```

```
        stroke-width="2" stroke-linecap="round"
        stroke-linejoin="round">
            <path d="M4 4111.733 16h4.267l-11.733 -
16z" />
            <path d="M4 20l6.768 -6.768m2.46 -
2.46l6.772 -6.772" />
        </svg>
    </a>
    <!-- Instagram -->
    <a
        href="https://www.instagram.com/pranav_sawant863/"
        class="social-btn" aria-label="Instagram"
        target="_blank">
        <svg width="20" height="20" viewBox="0 0
24 24" fill="none" stroke="currentColor"
            stroke-width="2" stroke-linecap="round"
            stroke-linejoin="round">
            <rect x="2" y="2" width="20" height="20"
rx="5" ry="5"></rect>
            <path d="M16 11.37A4 4 0 1 1 12.63 8 4 4
0 0 1 16 11.37z"></path>
            <line x1="17.5" y1="6.5" x2="17.51"
y2="6.5"></line>
        </svg>
    </a>
    <!-- LinkedIn -->
    <a href="https://www.linkedin.com/in/pranav-
sawant-2a95343a9/" class="social-btn"
        aria-label="LinkedIn">
        <svg width="20" height="20" viewBox="0 0
24 24" fill="none" stroke="currentColor"
            stroke-width="2" stroke-linecap="round"
            stroke-linejoin="round">
            <path
                d="M16 8a6 6 0 0 1 6 6v7h-4v-7a2 2 0 0
0-2-2 2 2 0 0 0-2 2v7h-4v-7a6 6 0 0 1 6-6z">
```

```

        </path>
        <rect x="2" y="9" width="4"
height="12"></rect>
            <circle cx="4" cy="4" r="2"></circle>
        </svg>
    </a>
</div>
<div class="social-label-vertical">Follow
Me</div>
    </div>
</div>
</section>

<section class="glass footer-card">
    &copy; <span id="year"></span> Pranav • Built with
HTML, CSS, and jQuery
</section>
</main>

<script src="script.js"></script>
</body>

</html>

```

5.3 projects.html

```

<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
    <title>Projects | Pranav</title>
    <link rel="preconnect" href="https://fonts.googleapis.com">
    <link rel="preconnect" href="https://fonts.gstatic.com">

```

```
crossorigin>
  <link
    href="https://fonts.googleapis.com/css2?family=Poppins:wght
@400;600;700&family=Inter:wght@400&display=swap"
    rel="stylesheet">
  <link rel="stylesheet" href="style.css">
  <script src="https://code.jquery.com/jquery-
3.7.1.min.js"></script>
</head>

<body>
  <header>
    <nav class="glass">
      <div class="logo">Pranav.dev</div>
      <ul>
        <li><a href="index.html" class="nav-
link">Home</a></li>
        <li><a href="about.html" class="nav-
link">About</a></li>
        <li><a href="projects.html" class="nav-link
active">Projects</a></li>
        <li><a href="skills.html" class="nav-
link">Skills</a></li>
        <li><a href="hire.html" class="nav-link">Hire
Me</a></li>
        <li><button id="theme-toggle" class="filter-btn"
style="padding: 0.5rem 1rem;">Light Mode</button></li>
      </ul>
    </nav>
  </header>

  <main>
    <section id="projects" class="glass">
      <h2>Projects</h2>

      <div class="projects-controls">
```

```
<button class="filter-btn active" data-
filter="all">All</button>
    <button class="filter-btn" data-
filter="web">Web</button>
        <button class="filter-btn" data-
filter="js">JS</button>
            <button class="filter-btn" data-
filter="c">C/C++</button>
                <button class="filter-btn" data-
filter="fun">Experiments</button>
                    <!-- Dynamic DOM creation button -->
                    <button id="add-project" class="filter-btn"
style="margin-left: auto; border-color: var(--accent-color); color: var(--accent-color);">+ Add
                        Project</button>
                </div>

<div class="projects-grid">
    <article class="project-card glass" data-type="web">
        <span class="project-tag">Web</span>
        <h3>Personal Portfolio</h3>
        <p>A responsive single-page portfolio using
HTML, CSS, and jQuery with traversal methods.</p>
    </article>

    <article class="project-card glass" data-type="js">
        <span class="project-tag">JS</span>
        <h3>Async Task Manager</h3>
        <p>A vanilla JavaScript application managing
state with Promises, Async/Await and LocalStorage.</p>
    </article>

    <article class="project-card glass" data-type="c">
        <span class="project-tag">C</span>
        <h3>Data Structures Library</h3>
        <p>Reusable C implementations of lists, stacks,
```

queues, and trees with comprehensive documentation.

```
</p>
</article>
```

```
<article class="project-card glass" data-type="cpp">
  <span class="project-tag">C++</span>
  <h3>Game Engine Core</h3>
  <p>A high-performance 2D game engine core
written in C++ using OOP principles and SDL2.</p>
</article>
```

```
<article class="project-card glass" data-type="fun">
  <span class="project-tag">Fun</span>
  <h3>DOM Playground</h3>
  <p>Experimenting with jQuery traversal,
animations, and dynamic DOM manipulation techniques.</p>
</article>
</div>
```

```
<div class="log glass">
  <h4>Traversal & DOM Manipulation Log</h4>
  <ul id="log-list">
    <li>Page loaded. Projects ready.</li>
  </ul>
</div>
</section>
```

```
<section class="glass footer-card">
  © <span id="year"></span> Pranav • Built with
HTML, CSS, and jQuery
</section>
</main>
```

```
<script src="script.js"></script>
</body>
```

```
</html>
```

5.4 skills.html

```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
    <title>Skills | Pranav</title>
    <link rel="preconnect" href="https://fonts.googleapis.com">
        <link rel="preconnect" href="https://fonts.gstatic.com"
crossorigin>
            <link
                href="https://fonts.googleapis.com/css2?family=Poppins:wght
@400;600;700&family=Inter:wght@400&display=swap"
                rel="stylesheet">
                <link rel="stylesheet" href="style.css">
                <script src="https://code.jquery.com/jquery-
3.7.1.min.js"></script>
</head>

<body>
    <header>
        <nav class="glass">
            <div class="logo">Pranav.dev</div>
            <ul>
                <li><a href="index.html" class="nav-
link">Home</a></li>
                <li><a href="about.html" class="nav-
link">About</a></li>
                <li><a href="projects.html" class="nav-
link">Projects</a></li>
                <li><a href="skills.html" class="nav-link">
```

```
active">Skills</a></li>
    <li><a href="hire.html" class="nav-link">Hire
Me</a></li>
    <li><button id="theme-toggle" class="filter-btn"
style="padding: 0.5rem 1rem;">Light Mode</button></li>
</ul>
</nav>
</header>

<main>
    <section id="skills" class="glass">
        <h2>Skills & Expertise</h2>
        <p style="margin-bottom: 2rem;">A collection of
technologies I use.</p>

        <div class="skills-grid">
            <!-- Category: Languages -->
            <div class="skill-category glass">
                <h3>Languages</h3>
                <div class="skills-list">
                    <div class="skill-pill">C Programming</div>
                    <div class="skill-pill">C++</div>
                    <div class="skill-pill">JavaScript</div>
                </div>
            </div>

            <!-- Category: Frontend -->
            <div class="skill-category glass">
                <h3>Frontend</h3>
                <div class="skills-list">
                    <div class="skill-pill">HTML5</div>
                    <div class="skill-pill">CSS3</div>
                    <div class="skill-pill">jQuery</div>
                    <div class="skill-pill">DOM</div>
                </div>
            </div>
        </div>
    </section>
</main>
```

```
<!-- Category: Database -->
<div class="skill-category glass">
  <h3>Database</h3>
  <div class="skills-list">
    <div class="skill-pill">DBMS</div>
    <div class="skill-pill">MySQL</div>
    <div class="skill-pill">Oracle SQL</div>
  </div>
</div>

<!-- Category: Tools -->
<div class="skill-category glass">
  <h3>Tools</h3>
  <div class="skills-list">
    <div class="skill-pill">Git</div>
    <div class="skill-pill">VS Code</div>
    <div class="skill-pill">Anti-Gravity</div>
  </div>
</div>
</div>
</section>

<section class="glass footer-card">
  © <span id="year"></span> Pranav • Built with
  HTML, CSS, and jQuery
</section>
</main>

<script src="script.js"></script>
</body>

</html>
```

5.5 hire.html

```
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
    <title>Hire Me | Pranav</title>
    <link rel="preconnect" href="https://fonts.googleapis.com">
        <link rel="preconnect" href="https://fonts.gstatic.com"
crossorigin>
    <link
        href="https://fonts.googleapis.com/css2?family=Poppins:wght
@400;600;700&family=Inter:wght@400&display=swap"
        rel="stylesheet">
    <link rel="stylesheet" href="style.css">
    <script src="https://code.jquery.com/jquery-
3.7.1.min.js"></script>
</head>

<body>
    <header>
        <nav class="glass">
            <div class="logo">Pranav.dev</div>
            <ul>
                <li><a href="index.html" class="nav-
link">Home</a></li>
                <li><a href="about.html" class="nav-
link">About</a></li>
                <li><a href="projects.html" class="nav-
link">Projects</a></li>
                <li><a href="skills.html" class="nav-
link">Skills</a></li>
                <li><a href="hire.html" class="nav-link active">Hire
Me</a></li>
                <li><button id="theme-toggle" class="filter-btn">
```

```
style="padding: 0.5rem 1rem;">Light Mode</button></li>
    </ul>
</nav>
</header>

<main>
    <section id="contact" class="glass">
        <div class="contact-wrapper">
            <div class="contact-left">
                <div style="display: flex; align-items: center; gap: 1rem; margin-bottom: 0.5rem;">
                    <h2 style="margin-bottom: 0;">Hire Me</h2>
                    <div class="status-badge-green" style="width: fit-content;">
                        <span class="status-dot-green"></span>

```

AVAILABLE FOR WORK

```

                </div>
            </div>
            <p>Send me a quick message:</p>
            <form class="contact-form">
                <input type="text" id="name"
placeholder="Name" required />
                <input type="email" id="email"
placeholder="Email Address" required />
                <textarea id="message" rows="4"
placeholder="Message"></textarea>
                <button type="submit">Send Message</button>
            </form>
            <div class="success-msg" id="success-msg">Message sent successfully!</div>
        </div>

        <div class="social-sidebar">
            <div class="social-icons-vertical">
                <!-- X (Twitter) -->
                <a href="https://x.com/PSawant97297">
```

```
class="social-btn" aria-label="X" target="_blank">
    <svg width="20" height="20" viewBox="0 0
24 24" fill="none" stroke="currentColor"
        stroke-width="2" stroke-linecap="round"
        stroke-linejoin="round">
        <path d="M4 4l11.733 16h4.267l-11.733 -
16z" />
        <path d="M4 20l6.768 -6.768m2.46 -
2.46l6.772 -6.772" />
    </svg>
</a>
<!-- Instagram -->
<a
href="https://www.instagram.com/pranav_sawant863/">
    class="social-btn" aria-label="Instagram"
        target="_blank">
        <svg width="20" height="20" viewBox="0 0
24 24" fill="none" stroke="currentColor"
            stroke-width="2" stroke-linecap="round"
            stroke-linejoin="round">
            <rect x="2" y="2" width="20" height="20"
rx="5" ry="5"></rect>
            <path d="M16 11.37A4 4 0 1 1 12.63 8 4 4
0 0 1 16 11.37z"></path>
            <line x1="17.5" y1="6.5" x2="17.51"
y2="6.5"></line>
        </svg>
    </a>
<!-- LinkedIn -->
<a href="https://www.linkedin.com/in/pranav-
sawant-2a95343a9/" class="social-btn"
    aria-label="LinkedIn">
    <svg width="20" height="20" viewBox="0 0
24 24" fill="none" stroke="currentColor"
        stroke-width="2" stroke-linecap="round"
        stroke-linejoin="round">
```

```

<path
      d="M16 8a6 6 0 0 1 6 6v7h-4v-7a2 2 0 0
0-2-2 2 2 0 0 0-2 2v7h-4v-7a6 6 0 0 1 6-6z">
    </path>
    <rect x="2" y="9" width="4"
height="12"></rect>
    <circle cx="4" cy="4" r="2"></circle>
  </svg>
</a>
</div>
<div class="social-label-vertical">Follow
Me</div>
</div>
</div>
</section>

<section class="glass footer-card">
  &copy; <span id="year"></span> Pranav • Built with
HTML, CSS, and jQuery
</section>
</main>

<script src="script.js"></script>
</body>

</html>

```

➤ System Testing and Result

5.1 Test Cases Executed

1. Theme Toggle: Verified that clicking "Light Mode" successfully appends the `.light-mode` class to the `<body>` tag, updating root CSS variables and transforming the UI.
2. Filter Logic: Confirmed that clicking the "Web" filter button successfully fades out non-web project cards and

retains the appropriate elements.

3. Form Validation & Event Prevention: Tested the `e.preventDefault()` method on the contact form to ensure the page does not reload upon submission, and that input fields are successfully cleared using `.val("")`.
4. Clipboard API: Verified that the `navigator.clipboard.writeText()` function successfully copies "sawantpranav610@gmail.com" to the system clipboard and temporarily changes the button state.

5.2 Results

The application performs all required DOM manipulations and traversal operations smoothly without generating console errors. The dynamic logging system accurately tracks user behavior across the document.

➤ Future Scope and Conclusion

6.1 Future Scope

- Backend Integration: Implementing a Node.js or PHP backend to process the contact form and send actual emails.
- Database Implementation: Storing project data in a database (e.g., MySQL or MongoDB) and rendering it dynamically to avoid hardcoding HTML structures.
- Single Page Application (SPA) Conversion: Refactoring the multi-page setup into a React.js or vanilla JS SPA for seamless, reload-free navigation.

6.2 Conclusion

The "Portfolio with jQuery Traversal & DOM Manipulation" project successfully fulfills all specified requirements. It demonstrates a strong understanding of HTML5 semantics, modern CSS3 styling techniques (like Glassmorphism and CSS variables), and advanced JavaScript/jQuery concepts. The

project serves as a highly functional, interactive, and visually appealing digital resume.

➤ Reference

- jQuery Foundation. (n.d.). *jQuery API Documentation*. Retrieved from <https://api.jquery.com/>
- Mozilla Developer Network (MDN). (n.d.). *Document Object Model (DOM)*. Retrieved from https://developer.mozilla.org/en-US/docs/Web/API/Document_Object_Model
- W3C. (n.d.). *HTML5 Specification*.

➤ Glossary:

DOM (Document Object Model): A programming interface for web documents that represents the page so that programs can change the document structure, style, and content.

- **Glassmorphism: A UI design trend characterized by semi-transparent backgrounds with a blur effect, creating a frosted glass appearance.**
- **jQuery: A fast, small, and feature-rich JavaScript library designed to simplify**

HTML DOM tree traversal and manipulation.

- **Traversal: The process of moving through the DOM tree to find specific HTML elements based on their relation to other elements.**