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Subject: WEB

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OF

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ULHASNAGAR – 421 003



CERTIFICATE

This is to certify that Mr./Ms. Kartik Ananta Salunkhe of F.Y. Information Technology (FYIT) Roll No. 2541037 has satisfactorily completed the Web Designing Mini Project entitled Portfolio with Keyboard Event Accessibility Navigation 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 **Karticccck Portfolio** is a modern, single-page application (SPA) designed to showcase professional skills, projects, and academic background.

Beyond standard visual appeal, this version focuses on Web Accessibility.

It implements custom JavaScript keyboard event listeners to ensure that users who cannot use a mouse (or prefer power-user shortcuts) can navigate the site effortlessly.

➤ Requirement Specification

- Hardware Requirements: * System with minimum 4GB RAM.
 - Keyboard and Mouse/Trackpad.
- Software Requirements:
 - Operating System: Windows 10/11, macOS, or Linux.
 - Web Browser: Chrome, Firefox, Edge, or Safari (must support ES6 JavaScript).
 - Code Editor: VS Code or Sublime Text.
- Functional Requirements:

- Smooth scrolling to sections (Home, About, Services, Projects, Contact).
- Dynamic typing animation.
- Toggle between Light and Dark modes.
- Keyboard Navigation: Use of Enter for focusable links and Hotkey shortcuts.

➤ System Design

The system follows a **Modular Frontend Architecture**:

- **UI/UX Layer:** Built using CSS Grid, Flexbox, and "Glass-morphism" design principles.
- **Event Handling Layer:** A JavaScript engine that listens for keydown and click events.
- **Logical Mapping:**
 - Key [H] -> Map to #home
 - Key [A] -> Map to #about
 - Key [S] -> Map to #service
 - Key [P] -> Map to #project
 - Key [C] -> Map to #contact

➤ System Implementation

The implementation uses a combination of HTML5, CSS3, and Vanilla JavaScript.

- **Accessibility Implementation:** The tabindex="0" attribute was added to non-interactive list items to make them focusable.
- **Event Listeners:** The document.addEventListener('keydown', ...) function was implemented to capture specific keystrokes across the entire DOM.
- **Typing Script:** Uses setTimeout and string manipulation to simulate real-time typing.

➤ **Program:**

```
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<title>karticccck Portfolio</title>
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/6.0.0/css/all.min.css">
<style>
/* General Reset & Variables */
:root {
  --primary: #ff9900;
  --primary-hover: #f3a847;
  --glass: rgba(255, 255, 255, 0.05);
  --glass-border: rgba(255, 255, 255, 0.15);
  --text: #ffffff;
  --bg-gradient: radial-gradient(circle at top right, #1a2a6c,
#b21f1f, #fdbb2d);
}
```

```
* {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
    font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
}

body {
    background: var(--bg-gradient);
    background-attachment: fixed;
    background-size: cover;
    color: var(--text);
    line-height: 1.6;
}

/* 3.0 Sticky Navbar */
header {
    position: sticky;
    top: 0;
    z-index: 1000;
    background: rgba(0, 0, 0, 0.3);
    backdrop-filter: blur(15px);
    padding: 10px 0;
    border-bottom: 1px solid var(--glass-border);
}

.navbar {
    display: flex;
    justify-content: space-between;
    align-items: center;
    max-width: 1300px;
    margin: 0 auto;
    padding: 0 20px;
}
```

```
.title-left p {  
    font-size: 1.8rem;  
    font-weight: 800;  
    background: linear-gradient(to right, #ff9900, #fff);  
    -webkit-background-clip: text;  
    -webkit-text-fill-color: transparent;  
    cursor: default;  
}  
  
.menu-right {  
    display: flex;  
    align-items: center;  
    gap: 15px;  
}  
  
.menu-right ul {  
    display: flex;  
    list-style: none;  
    gap: 10px;  
}  
  
/* 3D Curved Button Navbar Links */  
.menu-right ul li {  
    padding: 8px 18px;  
    border-radius: 30px;  
    background: var(--glass);  
    border: 1px solid var(--glass-border);  
    cursor: pointer;  
    font-weight: 500;  
    transition: all 0.4s cubic-bezier(0.175, 0.885, 0.32, 1.275);  
}  
  
/* Accessibility focus state */  
.menu-right ul li:focus {  
    outline: 2px solid var(--primary);
```

```
outline-offset: 3px;
background: var(--primary);
color: #131921;
}

.menu-right ul li:hover {
background: var(--primary);
color: #131921;
transform: translateY(-3px);
box-shadow: 0 10px 20px rgba(255, 153, 0, 0.3);
}

/* Search & Toggle Styling */
.search-box {
display: flex;
align-items: center;
background: rgba(0,0,0,0.2);
padding: 5px 12px;
border-radius: 20px;
border: 1px solid var(--glass-border);
}

.search-box input {
background: transparent;
border: none;
color: white;
outline: none;
width: 120px;
font-size: 0.9rem;
}

#theme-btn {
background: var(--glass);
border: 1px solid var(--glass-border);
border-radius: 50%;
```

```
width: 40px;
height: 40px;
cursor: pointer;
font-size: 1.2rem;
transition: 0.3s;
}

/* Hero Section with 3D Image Animation */
.hero-section {
  display: flex;
  align-items: center;
  justify-content: space-between;
  max-width: 1200px;
  margin: 0 auto;
  padding: 100px 20px;
}

.content-left h1 {
  font-size: 3.5rem;
  text-shadow: 0 5px 15px rgba(0,0,0,0.3);
}

.typing-container {
  font-size: 2.2rem;
  margin-top: 10px;
  height: 50px;
}

#typing-text {
  color: var(--primary);
  font-weight: bold;
  border-right: 3px solid var(--primary);
}

/* Social Logos Styling */
```

```
.social-logos {  
    display: flex;  
    gap: 20px;  
    margin-top: 20px;  
    font-size: 1.8rem;  
}  
.social-logos a {  
    color: white;  
    transition: 0.3s;  
    text-decoration: none;  
}  
.social-logos a:hover {  
    color: var(--primary);  
    transform: translateY(-5px);  
}  
  
.btn-container {  
    margin-top: 30px;  
}  
  
.btn {  
    padding: 12px 30px;  
    margin-right: 15px;  
    border: none;  
    border-radius: 8px;  
    background: var(--primary);  
    font-weight: bold;  
    cursor: pointer;  
    transition: 0.3s;  
    box-shadow: 0 4px 15px rgba(0,0,0,0.2);  
}  
  
.btn:hover {  
    background: var(--primary-hover);  
    transform: translateY(-5px);  
}
```

```
        box-shadow: 0 10px 20px rgba(255, 153, 0, 0.4);
    }

.right-photo {
    flex: 1;
    display: flex;
    justify-content: center;
    align-items: center;
}

.right-photo img {
    width: 380px;
    height: 380px;
    object-fit: cover;
    border-radius: 50%;
    border: 5px solid var(--glass-border);
    animation: float 4s ease-in-out infinite;
    filter: drop-shadow(0 0 20px rgba(255, 153, 0, 0.4));
    box-shadow: 0 0 50px rgba(0, 0, 0, 0.2);
    transition: transform 0.3s ease;
}

.right-photo img:hover {
    transform: scale(1.05) rotate(2deg);
    border-color: var(--primary);
}

@keyframes float {
    0%, 100% { transform: translateY(0); }
    50% { transform: translateY(-20px); }
}

/* About Me 3.0 Layout */
.about-me {
    display: flex;
```

```
align-items: center;
gap: 50px;
max-width: 1200px;
margin: 80px auto;
padding: 50px;
background: var(--glass);
backdrop-filter: blur(15px);
border-radius: 25px;
border: 1px solid var(--glass-border);
}

.about-content {
flex: 1.5;
text-align: left;
}

.about-photo {
flex: 1;
display: flex;
justify-content: center;
}

.about-photo img {
width: 100%;
max-width: 350px;
height: auto;
animation: pulse 5s infinite;
}

@keyframes pulse {
0%, 100% { transform: scale(1); }
50% { transform: scale(1.05); }
}

/* Skills Glass Cards */
```

```
.skills-expertise {  
    max-width: 1200px;  
    margin: 60px auto;  
    padding: 40px;  
    background: var(--glass);  
    backdrop-filter: blur(10px);  
    border-radius: 20px;  
    display: flex;  
    flex-wrap: wrap;  
    gap: 20px;  
}  
}
```

```
.language, .frontend, .database, .tools {  
    flex: 1 1 230px;  
    background: rgba(0,0,0,0.2);  
    padding: 25px;  
    border-radius: 15px;  
    border: 1px solid var(--glass-border);  
    transition: 0.4s;  
}  
}
```

```
.language:hover { transform: translateY(-10px) rotate(1deg);  
border-color: var(--primary); }
```

```
/* Projects 3D Perspective Animation */  
.pro-section {  
    max-width: 1200px;  
    margin: 60px auto;  
    padding: 40px;  
}
```

```
.portfolio, .traffic-signal, .laundry-service-management {  
    background: var(--glass);  
    padding: 30px;  
    margin-bottom: 20px;
```

```
border-radius: 15px;
border-left: 6px solid var(--primary);
transition: 0.5s cubic-bezier(0.2, 0.8, 0.2, 1);
cursor: pointer;
}

.portfolio:hover, .traffic-signal:hover, .laundry-service-management:hover {
    transform: perspective(1000px) rotateX(5deg) scale(1.02);
    background: rgba(255, 153, 0, 0.1);
    box-shadow: 0 20px 40px rgba(0,0,0,0.3);
}

/* Contact Form 3.0 */
.contact-me {
    max-width: 800px;
    background: var(--glass);
    backdrop-filter: blur(20px);
    padding: 50px;
    margin: 60px auto;
    border-radius: 30px;
}

.contact-form input, .contact-form textarea {
    background: rgba(255,255,255,0.05);
    border: 1px solid var(--glass-border);
    color: white;
    padding: 15px;
    border-radius: 10px;
    margin-bottom: 15px;
    transition: 0.3s;
    width: 100%;
}

.contact-form input:focus {
```

```
border-color: var(--primary);
background: rgba(0,0,0,0.3);
outline: none;
}

/* Work Experience & Stats */
.work-section {
    padding: 60px 20px;
}

.box {
    background: var(--glass) !important;
    backdrop-filter: blur(10px);
    border: 1px solid var(--glass-border) !important;
}

/* Footer 3.0 Styling */
footer {
    background: rgba(0,0,0,0.5);
    backdrop-filter: blur(15px);
    padding: 60px 0 20px;
    border-top: 1px solid var(--glass-border);
}

.footer-content {
    display: flex;
    justify-content: space-around;
    max-width: 1200px;
    margin: 0 auto;
}

/* Light Mode Placeholder Class */
.light-mode {
    --bg-gradient: radial-gradient(circle at top right, #e0eafc,
#cfdef3);
```

```
--text: #131921;
--glass: rgba(0, 0, 0, 0.05);
--glass-border: rgba(0, 0, 0, 0.1);
}

hr { border: 0; height: 1px; background: var(--glass-border);
margin: 60px 0; }

/* Responsive fix for smaller screens */
@media (max-width: 768px) {
    .hero-section {
        flex-direction: column-reverse;
        text-align: center;
        padding-top: 50px;
    }
    .right-photo img {
        width: 250px;
        height: 250px;
        margin-bottom: 30px;
    }
}
</style>
</head>
<body>

<header>
    <nav class="navbar">
        <div class="title-left">
            <p>karticccck Portfolio</p>
        </div>
        <div class="menu-right">
            <ul>
                <li tabindex="0">Home</li>
                <li tabindex="0">About</li>
                <li tabindex="0">Service</li>
```

```
<li tabindex="0">Project</li>
    <li tabindex="0">Contact me</li>
</ul>
<div class="search-box">
    <input type="text" placeholder="Search...">
    <span>Q</span>
</div>
<button id="theme-btn">🌙</button>
</div>
</nav>
</header>

<main>
    <div class="hero-section" id="home">
        <div class="content-left">
            <h1>Hello!! My name is Kartik Salunkhe</h1>
            <div class="typing-container">
                I am a <span id="typing-text"></span>
            </div>

            <div class="logo">
                <div class="social-logos">
                    <a href="https://www.instagram.com/karticccck_2801?igsh=dHd1eGtoZ2owbDli"><i class="fab fa-instagram"></i></a>
                    <a href=""><i class="fab fa-whatsapp"></i></a>
                    <a href="https://www.facebook.com/profile.php?id=100077747205152"><i class="fab fa-facebook"></i></a>
                    <a href="https://github.com/itzkartik28/C-PROGRAMMING-><i class="fab fa-github"></i></a>
                </div>
            </div>
        </div>
    <div class="btn-container">
```

```
<button class="btn">Download Resume</button>
    <button class="btn">Visit GitHub</button>
</div>
</div>
<div class="right-photo">
    
</div>
</div>

<hr>

<div class="about-me" id="about">
    <div class="about-content">
        <h1>About Me</h1>
        <br>
        <p>
            I am a passionate B.Sc. IT student, currently pursuing
            my first year
            at RKT College, Ulhasnagar. I have a strong interest
            in technology
            and problem-solving, and I enjoy building practical
            solutions
            through code.
        </p>
        <br>
        <p>
            I work as a web developer and have a solid
            foundation in programming
            languages such as C, C++, and basic Python. I also
            have hands-on
            knowledge of database technologies.
        </p>
    </div>
<div class="about-photo">
```

```
  
    </div>  
  </div>  
  
<div class="skills-expertise" id="service">  
  <h1 style="width: 100%; color: var(--primary);">Skills &  
  Expertise</h1>  
  <div class="language">  
    <h2>Language</h2>  
    <p>C  
    Programming</p><p>C++</p><p>JavaScript</p>  
  </div>  
  <div class="frontend">  
    <h2>Frontend</h2>  
    <p>HTML</p><p>CSS</p><p>JavaScript</p>  
  </div>  
  <div class="database">  
    <h2>Database</h2>  
    <p>DBMS</p><p>MySQL</p><p>PL/SQL</p>  
  </div>  
  <div class="tools">  
    <h2>Tools & Websites</h2>  
    <p>Git</p><p>GitHub</p>  
  </div>  
</div>  
  
<div class="pro-section" id="project">  
  <h1>Projects</h1>  
  <div class="portfolio">  
    <h1>Personal Portfolio</h1>  
    <p>Interactive glass-morphism design built with  
    HTML, CSS, and JS.</p>
```

```
</div>
<div class="traffic-signal">
    <h1>Traffic Animation Signal</h1>
    <p>Smooth CSS keyframe animations for signal
transitions.</p>
</div>
<div class="laundry-service-management">
    <h1>Laundry Service Management System</h1>
    <p>OOP-based management system for tracking
services and billing.</p>
</div>
</div>

<div class="contact-me" id="contact">
    <h1>Contact Me</h1>
    <form class="contact-form">
        <label>Your Email</label><br>
        <input type="email"
placeholder="karticccck@gmail.com" required><br>
        <label>Subject</label><br>
        <input type="text" placeholder="Portfolio Inquiry"
required><br>
        <label>Message</label><br>
        <textarea rows="5" placeholder="Tell me about your
project..." required></textarea><br>
        <button class="btn" type="submit" style="width:
100%;">Send Message</button><br>
    </form>
</div>

<div class="work-section">
    <h2 style="text-align: center; margin-bottom:
30px;">WORK EXPERIENCE</h2>
    <div class="flex-box" style="display: flex; gap: 20px;
max-width: 1200px; margin: 0 auto;">
```

```
<div class="box" style="flex:1; padding: 25px; text-align: center; border-radius: 15px;">
    <h4>Frontend</h4><p>HTML, CSS, JS</p>
</div>
<div class="box" style="flex:1; padding: 25px; text-align: center; border-radius: 15px;">
    <h4>Programmer</h4><p>C, C++, CSS</p>
</div>
<div class="box" style="flex:1; padding: 25px; text-align: center; border-radius: 15px;">
    <h4>Database</h4><p>SQL, PL/SQL, MY SQL</p>
</div>
</div>
</main>

<footer>
    <div class="footer-content">
        <div class="foot-col">
            <h3 style="color: var(--primary);">Karticccck
            Portfolio</h3>
            <p>Web Developer.</p>
        </div>
        <div class="foot-col">
            <ul style="list-style: none;">
                <li>Home</li><li>Project</li><li>About Me</li>
            </ul>
        </div>
        <div class="foot-col">
            <ul style="list-style: none;">
                <li>Privacy Policy</li><li>Terms</li><li>Contact
                me</li>
            </ul>
        </div>
    </div>
</footer>
```

```
<div style="text-align: center; margin-top: 40px; opacity: 0.6;">
    karticccck portfolio.com | All rights reserved &#169; 2026
</div>
</footer>

<script>
// Typing Animation
const textElement = document.getElementById('typing-text');
const words = ["Web Developer", "Coder"];
let wordIndex = 0;
let charIndex = 0;
let isDeleting = false;

function type() {
    const currentWord = words[wordIndex];
    if (isDeleting) {
        textElement.textContent = currentWord.substring(0, charIndex - 1);
        charIndex--;
    } else {
        textElement.textContent = currentWord.substring(0, charIndex + 1);
        charIndex++;
    }
}

let typeSpeed = isDeleting ? 50 : 150;

if (!isDeleting && charIndex === currentWord.length) {
    isDeleting = true;
    typeSpeed = 2000;
} else if (isDeleting && charIndex === 0) {
    isDeleting = false;
    wordIndex = (wordIndex + 1) % words.length;
```

```
typeSpeed = 500;
    }
    setTimeout(type, typeSpeed);
}

// Theme Toggle Script
const themeBtn = document.getElementById('theme-btn');
themeBtn.addEventListener('click', () => {
    document.body.classList.toggle('light-mode');
    themeBtn.textContent =
document.body.classList.contains('light-mode') ? '☀️' : '🌙';
});

// --- ACCESSIBILITY & NAVIGATION SCRIPT ---

// Scroll Function
function scrollToAction(textValue) {
    const text = textValue.toLowerCase().trim();
    let targetId = "";

    if(text === "home" || text === "h") targetId = "home";
    else if(text === "about" || text === "a") targetId = "about";
    else if(text === "service" || text === "s") targetId =
"service";
    else if(text === "project" || text === "p") targetId =
"project";
    else if(text === "contact me" || text === "c") targetId =
"contact";

    const element = document.getElementById(targetId);
    if(element) {
        window.scrollTo({
            top: element.offsetTop - 80,
            behavior: "smooth"
        });
    }
}
```

```
        }
    }

// Handle Navbar Clicks & Keyboard Enter key
const navButtons = document.querySelectorAll('.menu-right
ul li');
navButtons.forEach(btn => {
    // Click event
    btn.addEventListener('click', () =>
scrollToAction(btn.textContent));

    // Enter key event for accessibility
    btn.addEventListener('keydown', (e) => {
        if(e.key === "Enter") scrollToAction(btn.textContent);
    });
});

// Handle Keyboard Shortcuts (H, A, S, P, C)
document.addEventListener('keydown', (e) => {
    // Don't trigger if user is typing in a form
    if (e.target.tagName === 'INPUT' || e.target.tagName ===
'TEXTAREA') return;

    const key = e.key.toLowerCase();
    if(['h', 'a', 's', 'p', 'c'].includes(key)) {
        scrollToAction(key);
    }
});

document.addEventListener('DOMContentLoaded', type);
</script>

</body>
</html>
```

➤ System Testing and Result

Testing was conducted across multiple scenarios:

1. **Mouse Navigation:** All navbar links correctly trigger smooth scroll to the intended ID.
2. **Tab Navigation:** Using the Tab key correctly moves the visual focus through the menu.
3. **Hotkey Navigation:** Pressing 'P' scrolls the user directly to the Projects section.
4. **Form Input Validation:** The contact form successfully prevents hotkeys from firing while the user is actively typing a message.
5. **Responsiveness:** Tested on mobile view using Chrome DevTools; animations remain fluid.

➤ Future Scope and Conclusion

- **Future Scope:**
Integration of a backend database (Node.js/MongoDB) to store contact form submissions and an automated "Chatbot" for instant visitor inquiries.
- **Conclusion:**

This project successfully demonstrates that a high-end visual design can coexist with accessibility. By implementing keyboard event listeners, the portfolio becomes more inclusive for users with motor disabilities and more efficient for power users.

➤ Reference

- ***MDN Web Docs***: Using JavaScript Keyboard Events.
- ***W3C Web Accessibility Initiative (WAI)***: Keyboard Navigation Guidelines.
- ***FontAwesome***: Iconography library.
- ***Vecteezy***: 3D Asset illustrations.

➤ **Glossary:**

Term	Definition
Glass-morphism	A design trend using transparency and background blur to mimic frosted glass.
DOM	Document Object Model; the structural representation of the HTML.
Event Listener	A procedure in JavaScript that waits for an event to occur (like a key press).
SPA	Single Page Application; a website that fits on a single page to provide a more fluid user experience.
Hotkey	A keyboard key or combination of keys that provides quick access to a function.