

# Creating a website using the basic and advanced concept of JavaScript and jQuery

## Project Overview

**Project Date: 22<sup>nd</sup> December 2025 TO 6<sup>th</sup> March 2026**

This document provides a detailed outline of tasks for each phase of the project. Students are expected to complete all tasks within the specified phases.

### Interactive Quiz Application

#### Description:

A web-based quiz platform where users can take quizzes, answer multiple-choice questions, and receive scores instantly. It will feature real-time feedback and question navigation.

#### Core Features:

- Question Bank:** Store and retrieve quiz questions using JS arrays/objects.
- Real-time Scoring:** Provide instant feedback on answers.
- Timer-Based Quizzes:** Add countdown timer functionality.
- Validation:** Prevent empty submissions with form validation.
- Navigation:** Next/previous question navigation.
- Progress Tracking:** Track and display user progress dynamically.
- UI Enhancements:** jQuery animations and transitions.

**Technologies you can use: HTML, CSS, Bootstrap/tailwind, JS, JQuery**

#### Weekly Breakdown:

Week	Dates	Tasks
Week 1	22 <sup>nd</sup> Dec-25 to 27 <sup>th</sup> Dec-25	<b>Task:</b> Requirement Understanding, Analysis, Layout Planning <b>✓ Work Completed</b> <ul style="list-style-type: none"><li>Analysed various quiz websites such as Kahoot, Quizizz, W3Schools Quiz Model, etc. for UI inspiration.</li><li>Understood project requirements:<ul style="list-style-type: none"><li>Multiple-choice questions</li><li>Timer-based quiz</li><li>Real-time scoring</li><li>Question navigation</li><li>jQuery animations</li></ul></li><li>Collected references for UI trends (cards, progress bars, timers).</li><li>Designed layout rough sketches on paper:<ul style="list-style-type: none"><li>Home Page</li><li>Quiz Selection Page</li><li>Quiz Panel (Question + Options)</li><li>Navigation Buttons</li><li>Result Page</li></ul></li><li>Finalized the color theme and typography direction.</li></ul> <b>✓ Issues Faced</b> <ul style="list-style-type: none"><li>Deciding a uniform UI theme took time.</li><li>Confusion between per-question timer vs overall quiz timer</li></ul>
Week 2	29 <sup>th</sup> Dec-25 to 3 <sup>rd</sup> Jan-26	<b>Task:</b> UI Design and Project Setup <b>✓ Work Completed</b> <ul style="list-style-type: none"><li>Created complete project structure:<ul style="list-style-type: none"><li>/css</li></ul></li></ul>

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		<ul style="list-style-type: none"> <li>• /js</li> <li>• /images</li> <li>• index.html</li> <li>• quiz.html</li> <li>• result.html</li> <li>• Designed <b>homepage UI</b> using HTML + CSS.</li> <li>• Added menu, header, footer with basic styling.</li> <li>• Prepared HTML skeleton for:           <ul style="list-style-type: none"> <li>◦ Quiz page</li> <li>◦ Results page</li> </ul> </li> <li>• Linked jQuery library and tested simple animations.</li> <li>• Added sample buttons and navigation layout.</li> </ul> <p><b>✓ Issues Faced</b></p> <ul style="list-style-type: none"> <li>• Responsive design adjustments required fine-tuning.</li> <li>• Initial animations were lagging on mobile — fixed using .fadeIn() and .slideUp().</li> </ul>
Week 3	5 <sup>th</sup> Jan-26 to 10 <sup>th</sup> Jan-26	<p><b>Task:</b> Continue UI Design + Build Interactive Elements</p> <p><b>✓ Work Completed</b></p> <ul style="list-style-type: none"> <li>• Completed UI for all pages:           <ul style="list-style-type: none"> <li>◦ Home</li> <li>◦ Quiz Panel</li> <li>◦ Result page</li> <li>◦ Progress bar section</li> </ul> </li> <li>• Created option-selection UI using styled radio buttons.</li> <li>• Implemented:           <ul style="list-style-type: none"> <li>◦ Hover effects</li> <li>◦ Button animations</li> <li>◦ jQuery fade effects</li> </ul> </li> <li>• Added loader animation for quiz start.</li> </ul> <p><b>✓ Issues Faced</b></p> <ul style="list-style-type: none"> <li>• Some jQuery effects clashed with CSS transitions.</li> <li>• Option boxes overlapping on small devices (resolved with flexbox).</li> </ul>
Week 4	12 <sup>th</sup> Jan-26 to 17 <sup>th</sup> Jan-26	<p><b>Task:</b> JS Event Handling – Question Navigation (Part 1)</p> <p><b>✓ Work Completed</b></p> <ul style="list-style-type: none"> <li>• Added event listeners for:           <ul style="list-style-type: none"> <li>◦ Next Question</li> <li>◦ Previous Question</li> </ul> </li> <li>• Built logic to track current question index.</li> <li>• Created basic question loading function.</li> <li>• Integrated:           <ul style="list-style-type: none"> <li>◦ Disable Previous on first question</li> <li>◦ Disable Next on last question</li> </ul> </li> <li>• Added smooth slide transition between questions using jQuery.</li> </ul> <p><b>✓ Issues Faced</b></p> <ul style="list-style-type: none"> <li>• Navigation caused duplicate DOM nodes (fixed with .html() instead of .append()).</li> <li>• Handling of selected options when navigating back required extra logic.</li> </ul>

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<p><b>Week 5</b></p>	<p>19<sup>th</sup> Jan-26 to 24<sup>th</sup> Jan-26</p>	<p><b>Task:</b> JS Event Handling – Question Navigation (Part 2)</p> <p><b>✓ Work Completed</b></p> <ul style="list-style-type: none"> <li>• Implemented answer retention using:</li> <li>• userAnswers[currentIndex] = selectedOption;</li> <li>• Added progress indicator (e.g., “5 of 10 Questions”).</li> <li>• Improved transitions: <ul style="list-style-type: none"> <li>◦ Slide left for Next</li> <li>◦ Slide right for Previous</li> </ul> </li> <li>• Fixed radio button state restoration.</li> </ul> <p><b>✓ Issues Faced</b></p> <ul style="list-style-type: none"> <li>• Timer resetting on navigation (fixed by isolating timer function).</li> <li>• Edge-case bugs when skipping questions.</li> </ul>
<p><b>Week 6</b></p>	<p>26<sup>th</sup> Jan-26 to 31<sup>st</sup> Jan-26</p>	<p><b>Task:</b> Storing Questions Using Arrays/Objects</p> <p><b>✓ Work Completed</b></p> <ul style="list-style-type: none"> <li>• Created question bank:</li> <li>• const questions = [</li> <li>• {</li> <li>• q: "What is JavaScript?",</li> <li>• options: ["Language", "Framework", "Library", "Database"],</li> <li>• answer: 0</li> <li>• }];</li> <li>• Developed dynamic question loader to read from array.</li> <li>• Integrated question bank with navigation.</li> <li>• Tested question rendering logic with sample data.</li> </ul> <p><b>✓ Issues Faced</b></p> <ul style="list-style-type: none"> <li>• Complex objects needed restructuring for easier use.</li> <li>• Multiple-choice character limit caused layout issues.</li> </ul>
<p><b>Week 7</b></p>	<p>02<sup>nd</sup> Feb-26 to 07<sup>th</sup> Feb-26</p>	<p><b>Task:</b> Validation + Scoring Logic (Part 1)</p> <p><b>✓ Work Completed</b></p> <ul style="list-style-type: none"> <li>• Added validation: <ul style="list-style-type: none"> <li>◦ Prevent submit if any question unanswered.</li> <li>◦ Show warning using jQuery modal.</li> </ul> </li> <li>• Implemented scoring logic:</li> <li>• score++;</li> <li>• Displayed score on result page.</li> </ul> <p><b>✓ Issues Faced</b></p> <ul style="list-style-type: none"> <li>• Validation popup animation conflicted with existing jQuery slide animation.</li> <li>• Some answer comparisons failed due to index mismatch.</li> </ul>
<p><b>Week 8</b></p>	<p>09<sup>th</sup> Feb-26 to 14<sup>th</sup> Feb-26</p>	<p><b>Task:</b> Validation + Scoring Logic (Part 2)</p> <p><b>✓ Work Completed</b></p> <ul style="list-style-type: none"> <li>• Added real-time feedback: <ul style="list-style-type: none"> <li>◦ Highlight correct answers in green</li> <li>◦ Highlight wrong answers in red</li> </ul> </li> <li>• Calculated: <ul style="list-style-type: none"> <li>◦ Total score</li> <li>◦ Percentage</li> <li>◦ Total attempted questions</li> </ul> </li> <li>• Added result chart using jQuery animation.</li> </ul> <p><b>✓ Issues Faced</b></p> <ul style="list-style-type: none"> <li>• Result highlight persisted when revisiting questions (fixed with reset CSS).</li> </ul>

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		<ul style="list-style-type: none"> <li>• Timing issues when loading animations.</li> </ul>
Week 9	16 <sup>th</sup> Feb-26 To 21 <sup>st</sup> Feb-26	<p><b>Duration:</b> 16th Feb 2026 – 21st Feb 2026</p> <p><b>Task:</b> jQuery Animations &amp; Transitions</p> <p><b>✓ Work Completed</b></p> <ul style="list-style-type: none"> <li>• Added: <ul style="list-style-type: none"> <li>◦ Fade-in question transition</li> <li>◦ Slide-up results</li> <li>◦ Progress bar animation</li> <li>◦ Shake animation for wrong answers</li> </ul> </li> <li>• Enhanced UI responsiveness with dynamic resizing.</li> <li>• Added smooth scroll to top on quiz submit.</li> </ul> <p><b>✓ Issues Faced</b></p> <ul style="list-style-type: none"> <li>• Excessive animations made navigation slow (optimized by reducing durations).</li> </ul>
Week 10	23 <sup>rd</sup> Feb-26 to 28 <sup>th</sup> Feb-26	<p><b>Task:</b> Local Storage for Persistence</p> <p><b>✓ Work Completed</b></p> <ul style="list-style-type: none"> <li>• Stored user answers in local storage: <code>localStorage.setItem("quizData", JSON.stringify(userAnswers));</code></li> <li>• Stored: <ul style="list-style-type: none"> <li>◦ Score</li> <li>◦ Question progress</li> <li>◦ Completion time</li> </ul> </li> <li>• Added Resume Quiz feature (loads previous state).</li> </ul> <p><b>✓ Issues Faced</b></p> <ul style="list-style-type: none"> <li>• Local storage not clearing on new quiz — fixed.</li> <li>• Old data caused confusion during debugging.</li> </ul>
Week 11	02 <sup>nd</sup> Mar-26 To 07 <sup>th</sup> Mat-26	<ul style="list-style-type: none"> <li>- <b>Task:</b> Final Optimization + Testing + Deployment</li> </ul> <p><b>✓ Work Completed</b></p> <ul style="list-style-type: none"> <li>- Optimized JS functions for readability.</li> <li>- Removed unused variables and dead code.</li> <li>- Minified CSS and JS for faster loading.</li> <li>- Full testing:</li> <li>- Navigation</li> <li>- Timer</li> <li>- Mobile UI</li> <li>- Validation</li> <li>- Scoring</li> <li>- Final deployment to hosting (GitHub Pages / Netlify).</li> </ul> <p><b>✓ Issues Faced</b></p> <ul style="list-style-type: none"> <li>- Some devices had font scaling issues.</li> <li>- Minor delay in animations fixed by reducing jQuery queue.</li> </ul>