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LAB CHALLENGE 5

C5: QUIZ

Screenshots:

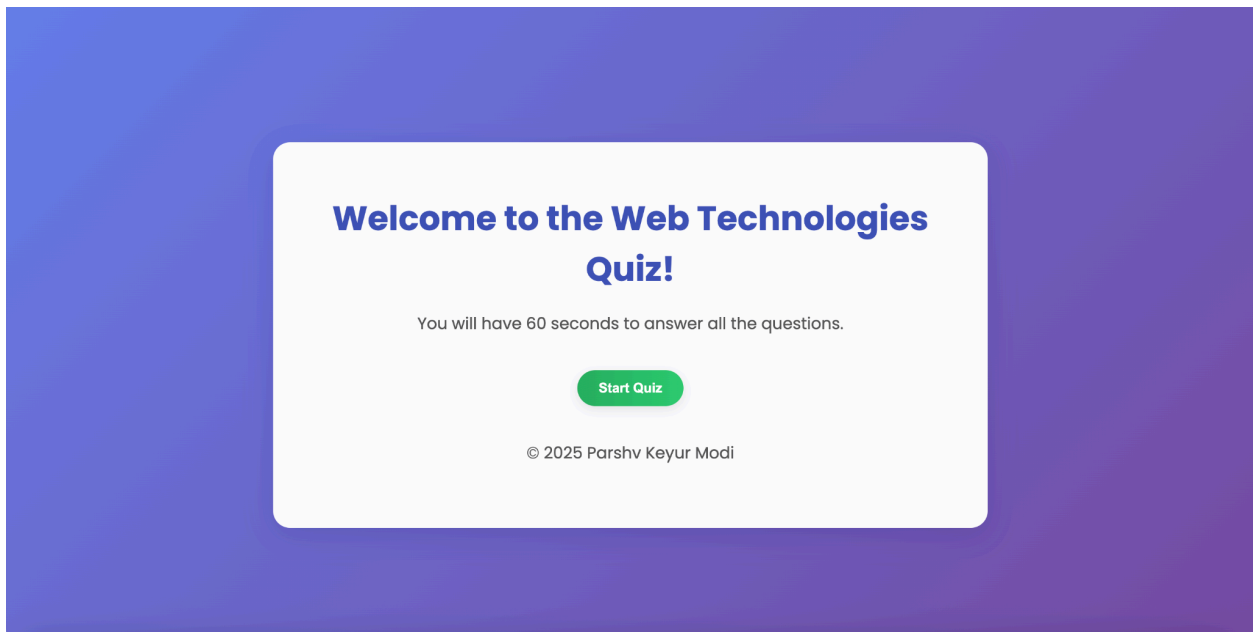


Fig. 1

Time Left: 00:54

Question 1 of 4

1. What does HTML stand for?

Hyper Text Markup Language

High Text Machine Language

Hyperlink and Text Markup Language

Home Tool Markup Language

Previous

Clear Response

Next

Fig. 2

Time Left: 00:45

Question 2 of 4

2. Which CSS property is used to change the text color of an element?

font-color

text-color

color

font-style

Previous

Clear Response

Next

Fig. 3

Time Left: 00:38 Question 4 of 4

4. What is the correct place to insert a JavaScript file in an HTML document?

The section

The section

Both the and section are correct

This section

Previous Clear Response Submit Quiz

This figure shows a quiz question interface. At the top, a pink pill-shaped button displays 'Time Left: 00:38' and the text 'Question 4 of 4' is on the right. The question text is '4. What is the correct place to insert a JavaScript file in an HTML document?'. Below the question are four radio button options: 'The section', 'The section', 'Both the and section are correct' (which is selected and highlighted in blue), and 'This section'. At the bottom, there are three buttons: 'Previous' (blue), 'Clear Response' (grey), and 'Submit Quiz' (green).

Fig. 4

Are you sure?

Do you want to submit the quiz?

Cancel Confirm

This figure shows a confirmation dialog box overlaid on a blurred background of the quiz interface. The dialog box is white with a blue title 'Are you sure?'. Below the title is the text 'Do you want to submit the quiz?'. At the bottom of the dialog box are two buttons: 'Cancel' (grey) and 'Confirm' (red).

Fig. 5

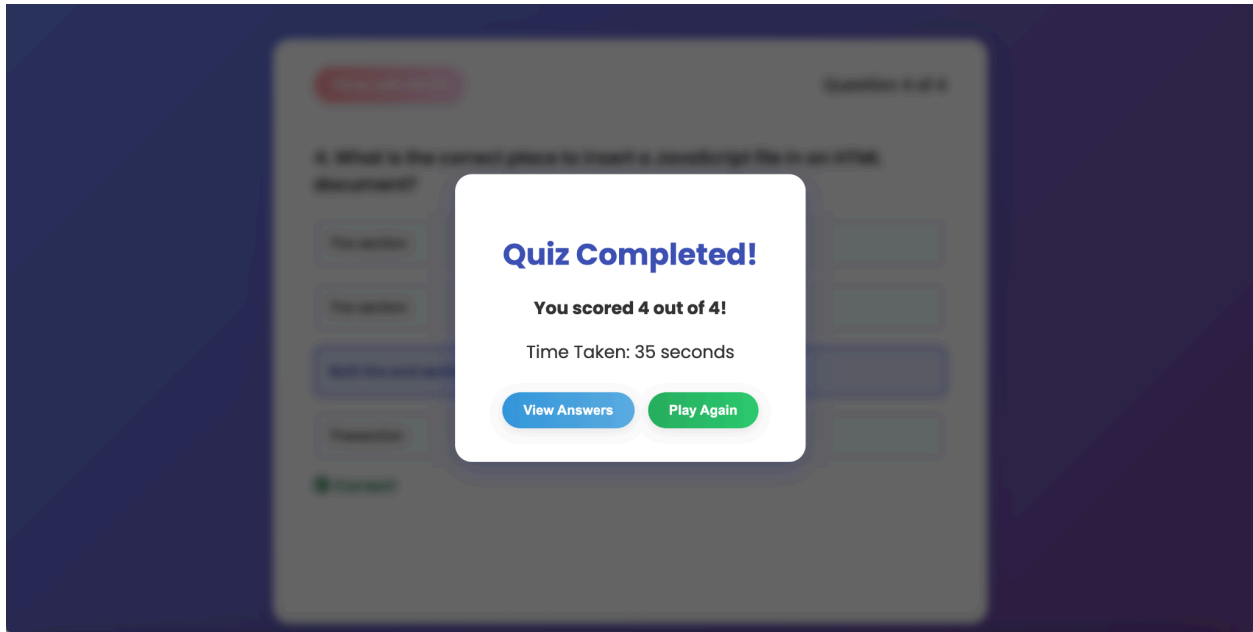


Fig. 6

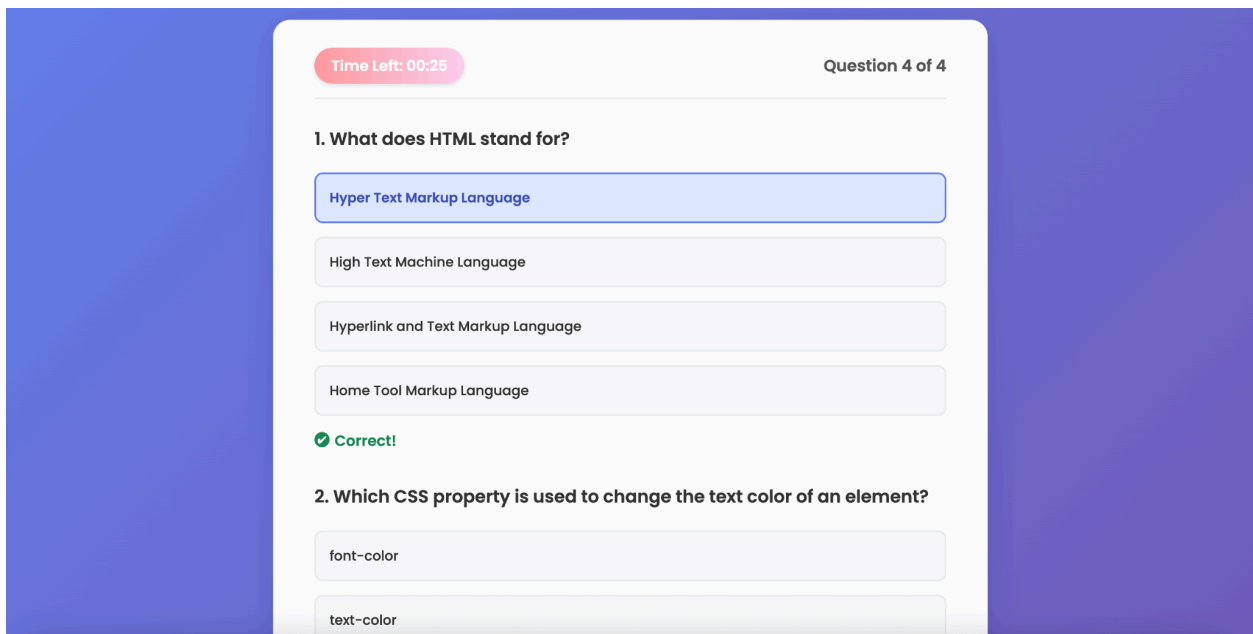


Fig. 7

color

font-style

✓ Correct!

3. Which JavaScript keyword is used to declare a variable that cannot be reassigned?

var

let

const

static

✓ Correct!

4. What is the correct place to insert a JavaScript file in an HTML document?

Fig. 8

static

✓ Correct!

4. What is the correct place to insert a JavaScript file in an HTML document?

The section

The section

Both the and section are correct

This section

✓ Correct!

Play Again

Fig. 9

CODE: HTML

```
HTML
<!DOCTYPE html>
```

```

<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Web Technologies Quiz</title>
  <link rel="stylesheet" href="style.css">
</head>
<body>

  <div id="start-screen">
    <h1>Welcome to the Web Technologies Quiz!</h1>
    <p>You will have 60 seconds to answer all the questions.</p>
    <button id="start-btn">Start Quiz</button>
    <footer style="margin-top: 2.5rem; font-size: 0.9rem; color: #7f8c8d;">
      <p>&copy; 2025 Parshv Keyur Modi</p>
    </footer>
  </div>

  <div class="quiz-container">
    <div class="quiz-header">
      <div id="timer">Time Left: 01:00</div>
      <div id="question-counter"></div>
    </div>

    <form id="quiz-form">
    </form>

    <div class="quiz-navigation">
      <button id="prev-btn">Previous</button>
      <button id="clear-btn">Clear Response</button>
      <button id="next-btn">Next</button>
      <button id="submit-quiz-btn">Submit Quiz</button>
    </div>
  </div>

  <div id="score-modal-overlay">
    <div id="score-modal">
      <h2>Quiz Completed!</h2>
      <p id="final-score"></p>
      <p id="time-taken"></p>
      <div class="modal-buttons">
        <button id="view-scorecard-btn">View Answers</button>
        <button id="play-again-btn">Play Again</button>
      </div>
    </div>
  </div>

```

```

        </div>
    </div>

    <div id="confirm-modal-overlay">
        <div id="confirm-modal">
            <h2>Are you sure?</h2>
            <p>Do you want to submit the quiz?</p>
            <div class="modal-buttons">
                <button id="cancel-submit-btn">Cancel</button>
                <button id="confirm-submit-btn">Confirm</button>
            </div>
        </div>
    </div>

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

```

CSS

CSS

```

/* Import a modern font from Google Fonts */
@import
url('https://fonts.googleapis.com/css2?family=Poppins:wght@400;500;600;700&disp
lay=swap');

/* General Styling */
body {
    font-family: 'Poppins', sans-serif;
    background: linear-gradient(135deg, #667eea 0%, #764ba2 100%);
    color: #333;
    display: flex;
    justify-content: center;
    align-items: center;
    min-height: 100vh;
    margin: 0;
    padding: 1rem;
    overflow: hidden; /* Prevent scrolling behind modals by default */
}

/* --- SHARED CONTAINER STYLES --- */
#start-screen, .quiz-container {
    background: rgba(255, 255, 255, 0.98);
    backdrop-filter: blur(10px);

```

```

padding: 2rem 3rem;
border-radius: 20px;
box-shadow: 0 8px 32px 0 rgba(31, 38, 135, 0.2);
border: 1px solid rgba(255, 255, 255, 0.18);
width: 100%;
max-width: 750px;
text-align: center;
transition: all 0.3s ease-in-out;
}

/* --- START SCREEN --- */
#start-screen h1 {
  font-size: 2.5rem;
  color: #3f51b5;
  margin-bottom: 1rem;
}

#start-screen p {
  font-size: 1.2rem;
  margin-bottom: 2.5rem;
  color: #555;
  line-height: 1.6;
}

/* --- QUIZ CONTAINER --- */
.quiz-container {
  padding-bottom: 7rem; /* Add padding to bottom to avoid overlap with fixed footer */
  position: relative;
}

.quiz-container h1 {
  font-size: 2rem;
  color: #3f51b5;
  margin-bottom: 1rem;
}

/* --- HEADER: TIMER & SCORE --- */
.quiz-header {
  display: flex;
  justify-content: space-between;
  align-items: center;
  margin-bottom: 2rem;
  font-size: 1.1rem;

```



```

    font-weight: 600;
    border-bottom: 2px solid #eee;
    padding-bottom: 1rem;
}

#timer {
    color: white;
    padding: 8px 20px;
    border-radius: 50px;
    box-shadow: 0 2px 5px rgba(0,0,0,0.1);
    background: linear-gradient(to right, #ff9a9e, #fecfef);
}

#question-counter {
    font-weight: 600;
    font-size: 1.2rem;
    color: #555;
}

/* --- QUESTION STYLING --- */
.question-block {
    margin-bottom: 2.5rem;
    text-align: left;
    animation: questionFadeIn 0.4s ease-in-out;
}

@keyframes questionFadeIn {
    from { opacity: 0; transform: translateY(10px); }
    to { opacity: 1; transform: translateY(0); }
}

.question-block p {
    font-size: 1.3rem;
    font-weight: 600;
    margin-bottom: 1.5rem;
    line-height: 1.5;
}

/* --- OPTIONS STYLING --- */
.options-container {
    display: flex;
    flex-direction: column;
    gap: 1rem;
}

```

```

.option {
  background-color: #f8f9fa;
  padding: 1rem;
  border-radius: 10px;
  border: 2px solid #e9ecef;
  cursor: pointer;
  transition: all 0.2s ease-in-out;
  display: flex;
  align-items: center;
  font-weight: 500;
}

.option:hover {
  transform: translateY(-3px);
  box-shadow: 0 4px 15px rgba(0,0,0,0.08);
  border-color: #c4d2ff;
}

.option input[type="radio"] {
  display: none;
}

.option:has(input:checked) {
  background-color: #e0e7ff;
  border-color: #667eea;
  color: #3f51b5;
  font-weight: 600;
}

/* --- RESULT MESSAGE (Correct/Incorrect) --- */
.result {
  margin-top: 1rem;
  font-weight: 600;
  font-size: 1.1rem;
  height: 24px;
  padding-left: 1.5rem;
  position: relative;
}

.result::before {
  content: '';
  position: absolute;
  left: 0;

```

```

    top: 50%;
    transform: translateY(-50%);
    width: 18px;
    height: 18px;
    border-radius: 50%;
}

.correct {
    color: #198754;
}

.correct::before {
    content: '✓';
    color: white;
    background-color: #198754;
    display: inline-flex;
    justify-content: center;
    align-items: center;
    font-size: 12px;
}

.incorrect {
    color: #dc3545;
}

.incorrect::before {
    content: '✗';
    color: white;
    background-color: #dc3545;
    display: inline-flex;
    justify-content: center;
    align-items: center;
    font-size: 12px;
}

/* --- NAVIGATION BUTTONS --- */
.quiz-navigation {
    position: absolute;
    bottom: 0;
    left: 0;
    width: 100%;
    background: #fff;
    padding: 1.5rem 3rem;
    box-sizing: border-box;
    border-top: 2px solid #eee;

```

```

    border-radius: 0 0 20px 20px;
    display: flex;
    justify-content: space-between;
    align-items: center;
}

button {
    padding: 12px 25px;
    border: none;
    border-radius: 50px;
    font-size: 1rem;
    font-weight: 600;
    color: white;
    cursor: pointer;
    transition: all 0.3s ease;
    box-shadow: 0 4px 15px rgba(0,0,0,0.1);
    background-size: 200% auto;
}

button:hover {
    transform: translateY(-3px);
    box-shadow: 0 6px 20px rgba(0,0,0,0.15);
    background-position: right center;
}

button:disabled {
    background-image: none !important;
    background-color: #bdc3c7 !important;
    cursor: not-allowed;
    transform: none;
    box-shadow: none;
}

/* Green Buttons */
#start-btn, #submit-quiz-btn, #play-again-btn {
    background-image: linear-gradient(to right, #27ae60 0%, #2ecc71 51%,
#27ae60 100%);
}

/* Blue Buttons */
#prev-btn, #next-btn, #view-scorecard-btn {
    background-image: linear-gradient(to right, #3498db 0%, #5dade2 51%,
#3498db 100%);
}

```

```

/* Grey Buttons */
#clear-btn, #cancel-submit-btn {
    background-image: linear-gradient(to right, #95a5a6 0%, #7f8c8d 51%,
#95a5a6 100%);
}

/* Red Button */
#confirm-submit-btn {
    background-image: linear-gradient(to right, #e74c3c 0%, #c0392b 51%,
#e74c3c 100%);
}

/* --- MODAL STYLES (SCORE & CONFIRM) --- */
#score-modal-overlay, #confirm-modal-overlay {
    position: fixed;
    top: 0;
    left: 0;
    width: 100%;
    height: 100%;
    background-color: rgba(0, 0, 0, 0.6);
    backdrop-filter: blur(5px);
    display: flex;
    justify-content: center;
    align-items: center;
    z-index: 1000;
    animation: modalFadeIn 0.3s;
}

@keyframes modalFadeIn {
    from { opacity: 0; }
    to { opacity: 1; }
}

#score-modal, #confirm-modal {
    background: white;
    padding: 2.5rem 3.5rem;
    border-radius: 20px;
    box-shadow: 0 8px 32px 0 rgba(31, 38, 135, 0.3);
    text-align: center;
    animation: modalContentIn 0.3s ease-in-out;
}

@keyframes modalContentIn {

```

```

    from { opacity: 0; transform: scale(0.9); }
    to { opacity: 1; transform: scale(1); }
}

#score-modal h2, #confirm-modal h2 {
  font-size: 2.2rem;
  color: #3f51b5;
  margin-bottom: 1rem;
}

#score-modal p, #confirm-modal p {
  font-size: 1.3rem;
  margin-bottom: 0.5rem;
  color: #333;
}

#final-score {
  font-weight: 700;
  font-size: 1.8rem;
  color: #27ae60;
}

.modal-buttons {
  margin-top: 2rem;
  display: flex;
  gap: 1rem;
  justify-content: center;
}

```

JAVASCRIPT

```

JavaScript
document.addEventListener('DOMContentLoaded', () => {
  const quizData = [
    {
      question: "What does HTML stand for?",
      options: ["Hyper Text Markup Language", "High Text Machine Language", "Hyperlink and Text Markup Language", "Home Tool Markup Language"],
      answer: "Hyper Text Markup Language"
    },
    {
      question: "Which CSS property is used to change the text color of an element?",

```

```

        options: ["font-color", "text-color", "color", "font-style"],
        answer: "color"
    },
    {
        question: "Which JavaScript keyword is used to declare a variable
that cannot be reassigned?",
        options: ["var", "let", "const", "static"],
        answer: "const"
    },
    {
        question: "What is the correct place to insert a JavaScript file in
an HTML document?",
        options: ["The <head> section", "The <body> section", "Both the
<head> and <body> section are correct", "The <footer> section"],
        answer: "Both the <head> and <body> section are correct"
    }
];

const startScreen = document.getElementById('start-screen');
const startBtn = document.getElementById('start-btn');
const quizContainer = document.querySelector('.quiz-container');
const quizForm = document.getElementById('quiz-form');
const timerEl = document.getElementById('timer');
const questionCounterEl = document.getElementById('question-counter');

const prevBtn = document.getElementById('prev-btn');
const nextBtn = document.getElementById('next-btn');
const clearBtn = document.getElementById('clear-btn');
const submitQuizBtn = document.getElementById('submit-quiz-btn');

const scoreModalOverlay = document.getElementById('score-modal-overlay');
const finalScoreEl = document.getElementById('final-score');
const timeTakenEl = document.getElementById('time-taken');
const playAgainBtn = document.getElementById('play-again-btn');
const viewScorecardBtn = document.getElementById('view-scorecard-btn');

const confirmModalOverlay =
document.getElementById('confirm-modal-overlay');
const cancelSubmitBtn = document.getElementById('cancel-submit-btn');
const confirmSubmitBtn = document.getElementById('confirm-submit-btn');

const INITIAL_TIME = 60;
let timer;
let timeLeft = INITIAL_TIME;

```

```

let currentQuestionIndex = 0;
let isQuizFinished = false;

function renderQuiz() {
  let quizHTML = '';
  quizData.forEach((q, index) => {
    quizHTML += `
      <div class="question-block" id="question-${index}"
style="display: none;">
        <p>${index + 1}. ${q.question}</p>
        <div class="options-container">
          ${q.options.map(option => `
            <label class="option">
              <input type="radio" name="question${index}"
value="${option}">
                ${option}
            </label>
          `).join('')}
        </div>
        <div class="result" id="result-${index}"></div>
      </div>
    `;
  });
  quizForm.innerHTML = quizHTML;
  showQuestion(currentQuestionIndex);
}

function showQuestion(index) {
  document.querySelectorAll('.question-block').forEach(block => {
    block.style.display = 'none';
  });
  const questionToShow = document.getElementById(`question-${index}`);
  if (questionToShow) {
    questionToShow.style.display = 'block';
  }
  updateNavigation();
}

function updateNavigation() {
  questionCounter.textContent = `Question ${currentQuestionIndex + 1}
of ${quizData.length}`;
  prevBtn.disabled = currentQuestionIndex === 0;
  nextBtn.disabled = currentQuestionIndex === quizData.length - 1;
}

```



```

        submitQuizBtn.style.display = currentQuestionIndex === quizData.length
- 1 ? 'inline-block' : 'none';
        nextBtn.style.display = currentQuestionIndex === quizData.length - 1 ?
'none' : 'inline-block';
    }

    function startTimer() {
        timer = setInterval(() => {
            timeLeft--;
            const minutes = Math.floor(timeLeft / 60).toString().padStart(2,
'0');

            const seconds = (timeLeft % 60).toString().padStart(2, '0');
            timerEl.textContent = `Time Left: ${minutes}:${seconds}`;

            if (timeLeft <= 0) {
                clearInterval(timer);
                timerEl.textContent = "Time Over!";
                checkAnswers(true);
            }
        }, 1000);
    }

    function showScoreModal(score, total) {
        const timeTaken = INITIAL_TIME - timeLeft;
        finalScoreEl.textContent = `You scored ${score} out of ${total}!`;
        timeTakenEl.textContent = `Time Taken: ${timeTaken} seconds`;
        scoreModalOverlay.style.display = 'flex';
    }

    function checkAnswers(timeUp = false) {
        isQuizFinished = true;
        clearInterval(timer);
        let score = 0;

        const radioButtons = quizForm.querySelectorAll('input[type="radio"]');
        radioButtons.forEach(radio => radio.disabled = true);

        quizData.forEach((q, index) => {
            const resultEl = document.getElementById(`result-${index}`);
            const selectedOption =
quizForm.querySelector(`input[name="question${index}"]:checked`);

            if (selectedOption) {
                if (selectedOption.value === q.answer) {

```

```

        score++;
        resultEl.textContent = "Correct!";
        resultEl.classList.add('correct');
    } else {
        resultEl.textContent = `Incorrect! Correct answer:
    ${q.answer}`;
        resultEl.classList.add('incorrect');
    }
    } else {
        resultEl.textContent = "No answer selected.";
        resultEl.classList.add('incorrect');
    }
    });

    document.querySelector('.quiz-navigation').style.display = 'none';

    setTimeout(() => {
        showScoreModal(score, quizData.length);
    }, 1500);
}

function goToStartScreen() {
    isQuizFinished = false;
    clearInterval(timer);
    timeLeft = INITIAL_TIME;
    currentQuestionIndex = 0;

    document.body.style.overflow = 'hidden';
    scoreModalOverlay.style.display = 'none';
    quizContainer.style.display = 'none';
    startScreen.style.display = 'block';

    timerEl.textContent = 'Time Left: 01:00';
    quizForm.innerHTML = '';
    const nav = document.querySelector('.quiz-navigation');
    nav.style.display = 'flex';
    submitQuizBtn.textContent = 'Submit Quiz';
}

function clearCurrentResponse() {
    const radioButtons =
document.querySelectorAll(`input[name="question${currentQuestionIndex}"]`);
    radioButtons.forEach(radio => radio.checked = false);
}

```

```

function viewScorecard() {
  scoreModalOverlay.style.display = 'none';
  quizContainer.style.display = 'block';
  document.body.style.overflow = 'auto'; // Allow scrolling
  document.querySelectorAll('.question-block').forEach(block => {
    block.style.display = 'block';
  });
  const nav = document.querySelector('.quiz-navigation');
  nav.style.display = 'flex';
  prevBtn.style.display = 'none';
  nextBtn.style.display = 'none';
  clearBtn.style.display = 'none';
  submitQuizBtn.textContent = 'Play Again';
  submitQuizBtn.style.display = 'inline-block';
  submitQuizBtn.removeEventListener('click', handleSubmit);
  submitQuizBtn.addEventListener('click', goToStartScreen, { once: true
});
}

function handleSubmit() {
  confirmModalOverlay.style.display = 'flex';
}

function initializeQuiz() {
  document.body.style.overflow = 'hidden';
  startScreen.style.display = 'none';
  quizContainer.style.display = 'block';
  renderQuiz();
  startTimer();
}

function setInitialState() {
  quizContainer.style.display = 'none';
  scoreModalOverlay.style.display = 'none';
  confirmModalOverlay.style.display = 'none';
  startScreen.style.display = 'block';
}

setInitialState();

startBtn.addEventListener('click', initializeQuiz);
playAgainBtn.addEventListener('click', goToStartScreen);
viewScorecardBtn.addEventListener('click', viewScorecard);

```

```
submitQuizBtn.addEventListener('click', handleSubmit);

nextBtn.addEventListener('click', () => {
  if (currentQuestionIndex < quizData.length - 1) {
    currentQuestionIndex++;
    showQuestion(currentQuestionIndex);
  }
});

prevBtn.addEventListener('click', () => {
  if (currentQuestionIndex > 0) {
    currentQuestionIndex--;
    showQuestion(currentQuestionIndex);
  }
});

clearBtn.addEventListener('click', clearCurrentResponse);

confirmSubmitBtn.addEventListener('click', () => {
  confirmModalOverlay.style.display = 'none';
  checkAnswers(false);
});

cancelSubmitBtn.addEventListener('click', () => {
  confirmModalOverlay.style.display = 'none';
});
});
```