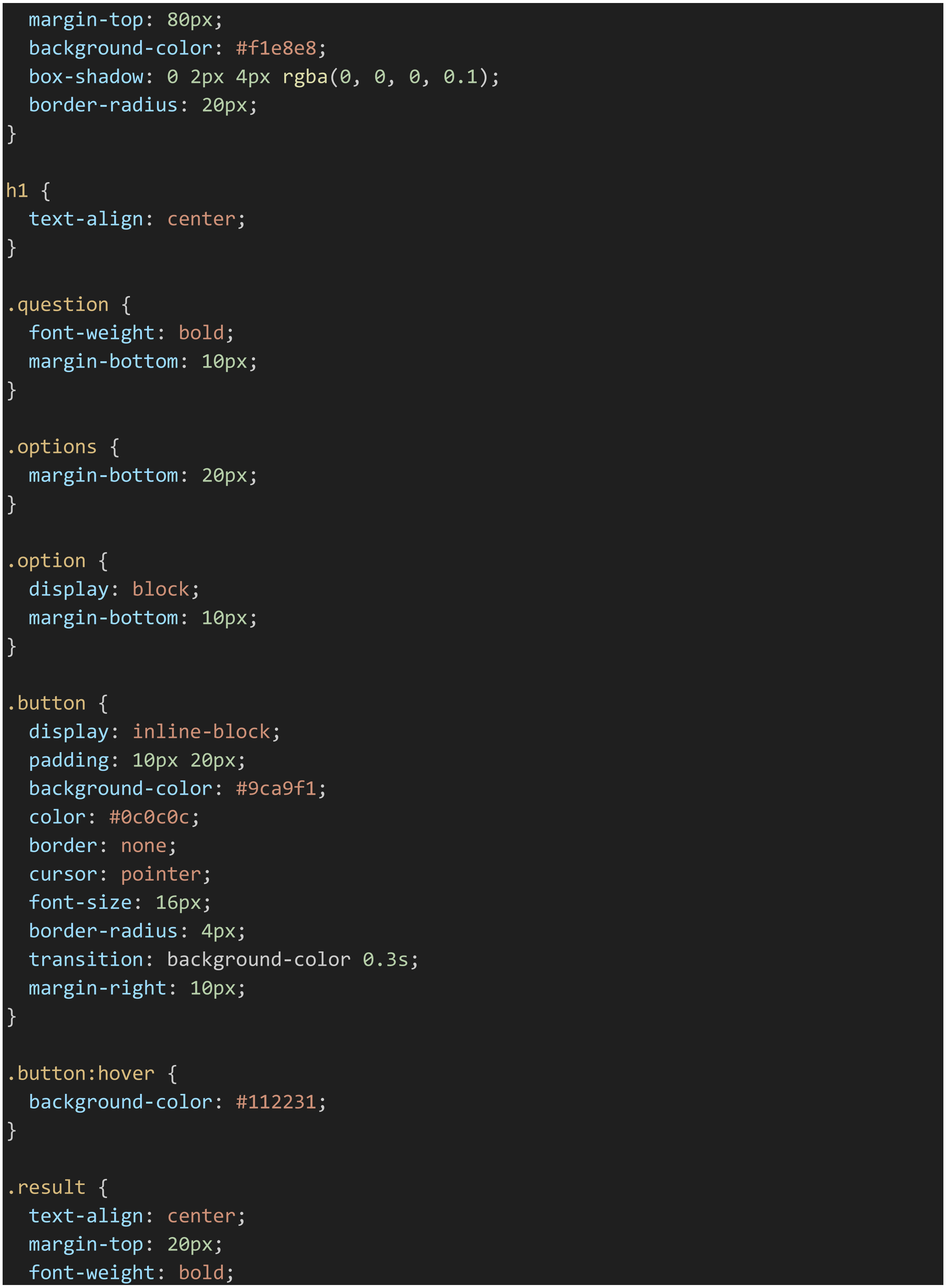
WEEK 1 MINI PROJECT

HTML

```html
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript Quiz App</title>
  <link rel="stylesheet" href="qz.css">
</head>
<body>
  <div class="container">
    <h1>Quiz App</h1>
    <div id="quiz"></div>
    <div id="result" class="result"></div>
    <button id="submit" class="button">Submit</button>
    <button id="retry" class="button hide">Retry</button>
    <button id="showAnswer" class="button hide">Show Answer</button>
  </div>
  <script src="qz.js"></script>
</body>
</html>
</body>
</html>
```

CSS

```css
@import
url('https://fonts.googleapis.com/css2?family=Poppins:wght@400;500;700&display=swap');

body {
  font-family: 'Poppins', sans-serif;
  background: #1b344b;
  display: flex;
  justify-content: center;
}

.container {
  width: 450px;
  padding: 20px;
```

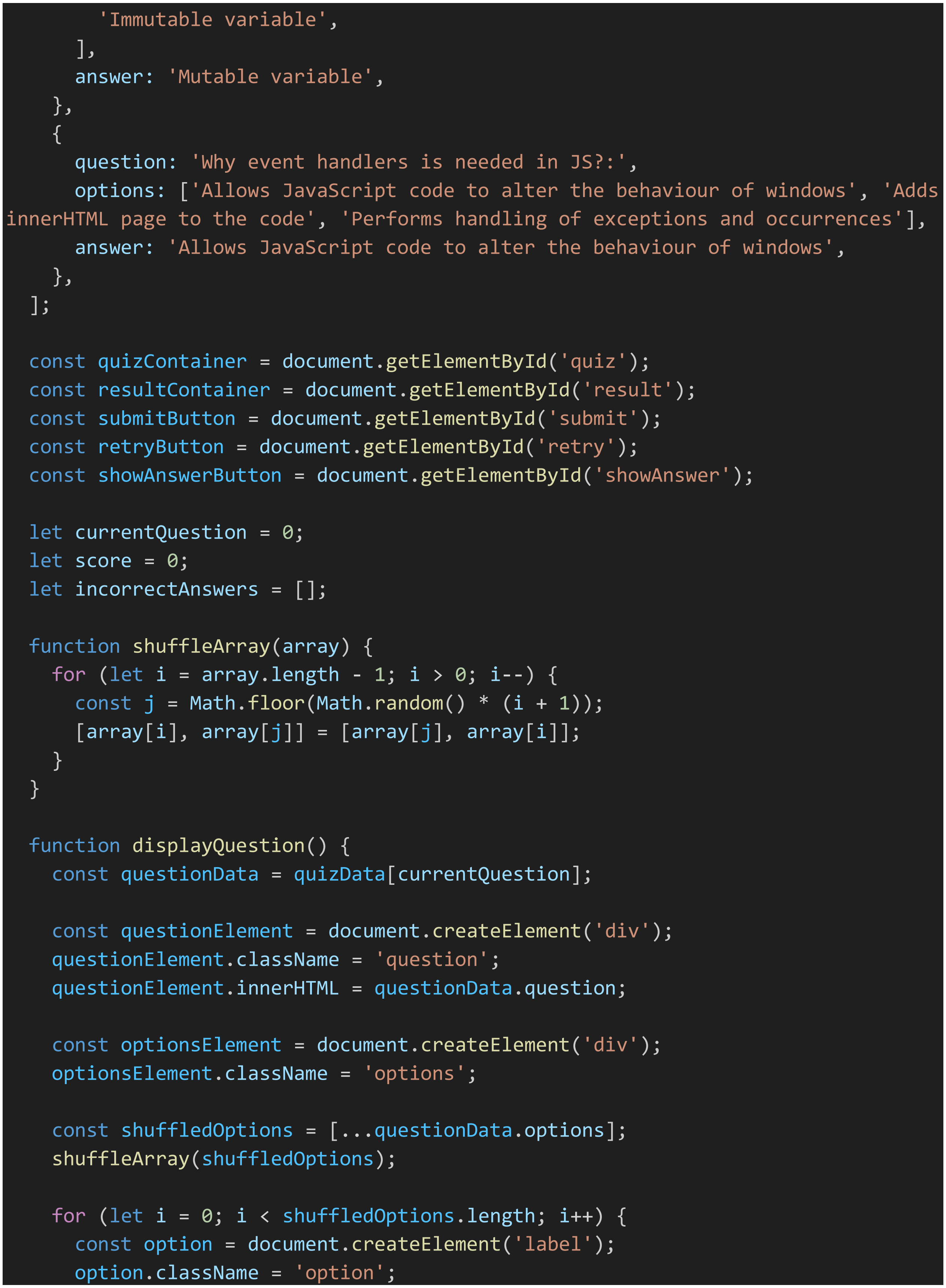


```
  margin-top: 80px;
  background-color: #f1e8e8;
  box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
  border-radius: 20px;
}

h1 {
  text-align: center;
}

.question {
  font-weight: bold;
  margin-bottom: 10px;
}

.options {
  margin-bottom: 20px;
}

.option {
  display: block;
  margin-bottom: 10px;
}

.button {
  display: inline-block;
  padding: 10px 20px;
  background-color: #9ca9f1;
  color: #0c0c0c;
  border: none;
  cursor: pointer;
  font-size: 16px;
  border-radius: 4px;
  transition: background-color 0.3s;
  margin-right: 10px;
}

.button:hover {
  background-color: #112231;
}

.result {
  text-align: center;
  margin-top: 20px;
  font-weight: bold;
```

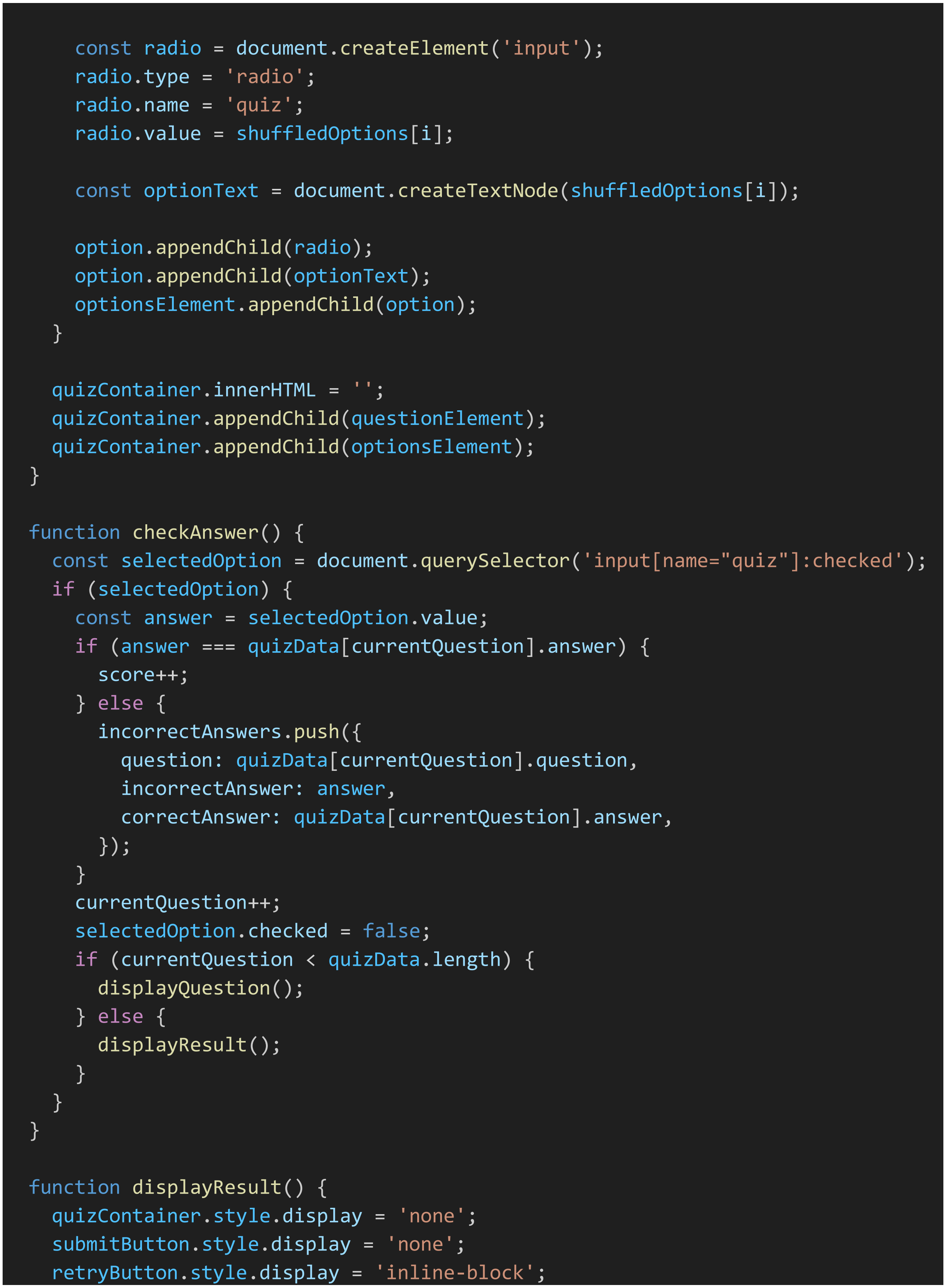
```
}

.hide{
  display: none;
}
```

JAVASCRIPT

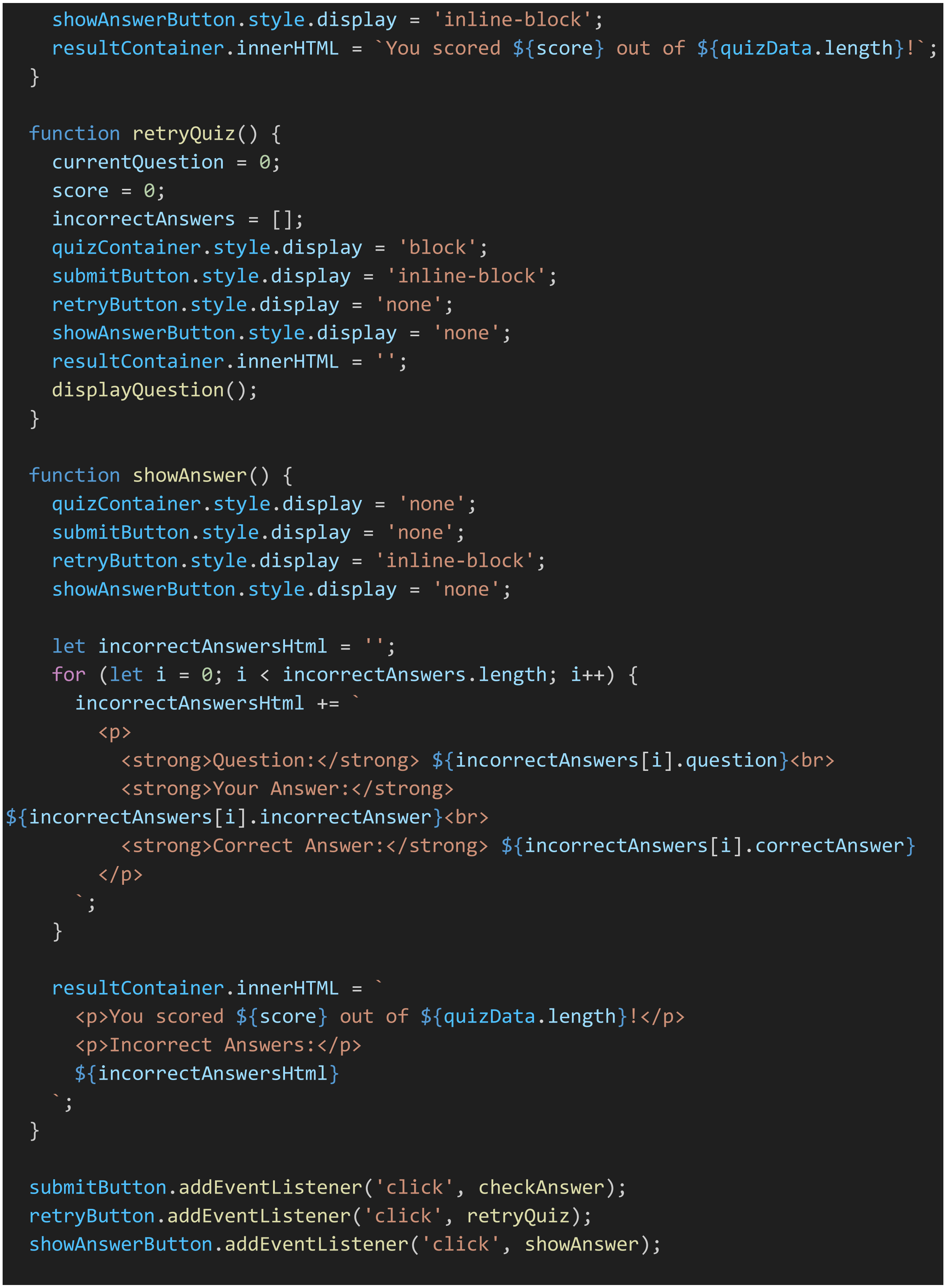
```
const quizData = [
    {
      question: 'Which of the following methods is used to access HTML elements using Javascript:',
      options: ['getElementbyid()', 'getElementByClassName()', 'Both A and B'],
      answer: 'Both A and B',
    },
    {
      question: ' Which of the following object is the main entry point to all client-side JavaScript features and APIs?:',
      options: ['Position', 'Window', ' Location'],
      answer: 'Window',
    },
    {
      question: 'Which of the following scoping type does JavaScript use?:',
      options: ['Sequential', 'Segmental', ' Lexical'],
      answer: ' Lexical',
    },
    {
      question: ' What is the basic difference between JavaScript and Java?:',
      options: [' Functions are considered as fields', ' Functions are values, and there is no hard distinction between methods and fields', 'There is no difference'],
      answer: ' Functions are values, and there is no hard distinction between methods and fields',
    },
    {
      question: 'Which of the following type of a variable is volatile?',
      options: [
        'Mutable variable',
        'Dynamic variable',
        'Volatile variable',
```



```
        'Immutable variable',
      ],
      answer: 'Mutable variable',
    },
    {
      question: 'Why event handlers is needed in JS?:',
      options: ['Allows JavaScript code to alter the behaviour of windows', 'Adds innerHTML page to the code', 'Performs handling of exceptions and occurrences'],
      answer: 'Allows JavaScript code to alter the behaviour of windows',
    },
  ];

  const quizContainer = document.getElementById('quiz');
  const resultContainer = document.getElementById('result');
  const submitButton = document.getElementById('submit');
  const retryButton = document.getElementById('retry');
  const showAnswerButton = document.getElementById('showAnswer');

  let currentQuestion = 0;
  let score = 0;
  let incorrectAnswers = [];

  function shuffleArray(array) {
    for (let i = array.length - 1; i > 0; i--) {
      const j = Math.floor(Math.random() * (i + 1));
      [array[i], array[j]] = [array[j], array[i]];
    }
  }

  function displayQuestion() {
    const questionData = quizData[currentQuestion];

    const questionElement = document.createElement('div');
    questionElement.className = 'question';
    questionElement.innerHTML = questionData.question;

    const optionsElement = document.createElement('div');
    optionsElement.className = 'options';

    const shuffledOptions = [...questionData.options];
    shuffleArray(shuffledOptions);

    for (let i = 0; i < shuffledOptions.length; i++) {
      const option = document.createElement('label');
      option.className = 'option';
```

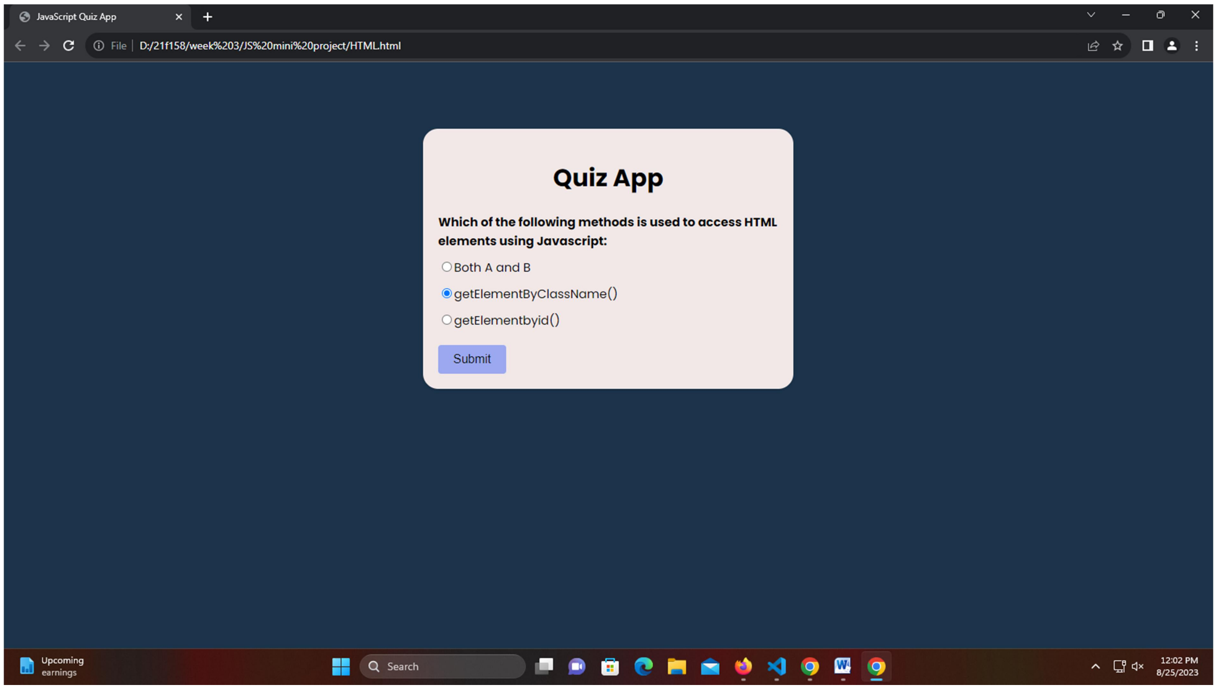


```
    const radio = document.createElement('input');
    radio.type = 'radio';
    radio.name = 'quiz';
    radio.value = shuffledOptions[i];

    const optionText = document.createTextNode(shuffledOptions[i]);

    option.appendChild(radio);
    option.appendChild(optionText);
    optionsElement.appendChild(option);
  }

  quizContainer.innerHTML = '';
  quizContainer.appendChild(questionElement);
  quizContainer.appendChild(optionsElement);
}

function checkAnswer() {
  const selectedOption = document.querySelector('input[name="quiz"]:checked');
  if (selectedOption) {
    const answer = selectedOption.value;
    if (answer === quizData[currentQuestion].answer) {
      score++;
    } else {
      incorrectAnswers.push({
        question: quizData[currentQuestion].question,
        incorrectAnswer: answer,
        correctAnswer: quizData[currentQuestion].answer,
      });
    }
    currentQuestion++;
    selectedOption.checked = false;
    if (currentQuestion < quizData.length) {
      displayQuestion();
    } else {
      displayResult();
    }
  }
}

function displayResult() {
  quizContainer.style.display = 'none';
  submitButton.style.display = 'none';
  retryButton.style.display = 'inline-block';
```



```
    showAnswerButton.style.display = 'inline-block';
    resultContainer.innerHTML = `You scored ${score} out of ${quizData.length}!`;
  }

  function retryQuiz() {
    currentQuestion = 0;
    score = 0;
    incorrectAnswers = [];
    quizContainer.style.display = 'block';
    submitButton.style.display = 'inline-block';
    retryButton.style.display = 'none';
    showAnswerButton.style.display = 'none';
    resultContainer.innerHTML = '';
    displayQuestion();
  }

  function showAnswer() {
    quizContainer.style.display = 'none';
    submitButton.style.display = 'none';
    retryButton.style.display = 'inline-block';
    showAnswerButton.style.display = 'none';

    let incorrectAnswersHtml = '';
    for (let i = 0; i < incorrectAnswers.length; i++) {
      incorrectAnswersHtml += `
        <p>
          <strong>Question:</strong> ${incorrectAnswers[i].question}<br>
          <strong>Your Answer:</strong>
${incorrectAnswers[i].incorrectAnswer}<br>
          <strong>Correct Answer:</strong> ${incorrectAnswers[i].correctAnswer}
        </p>
      `;
    }

    resultContainer.innerHTML = `
      <p>You scored ${score} out of ${quizData.length}!</p>
      <p>Incorrect Answers:</p>
      ${incorrectAnswersHtml}
    `;
  }

  submitButton.addEventListener('click', checkAnswer);
  retryButton.addEventListener('click', retryQuiz);
  showAnswerButton.addEventListener('click', showAnswer);
  displayQuestion();
```

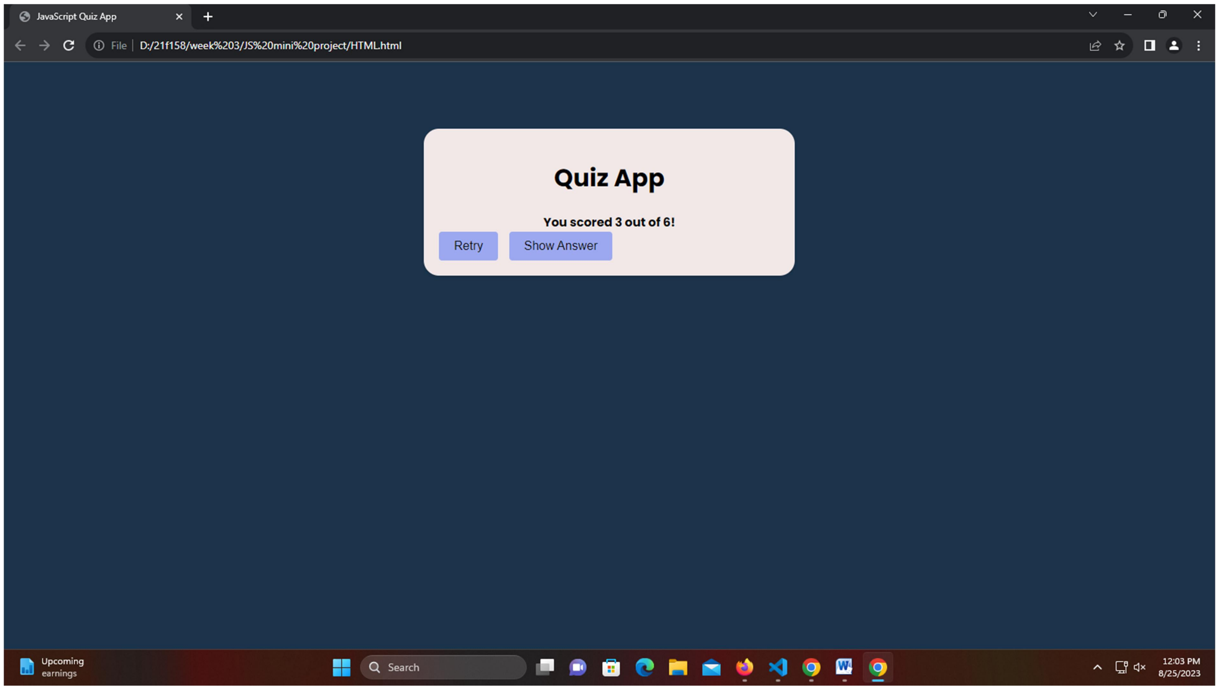
OUTPUT



Quiz App

Which of the following methods is used to access HTML elements using Javascript:

○ Both A and B
● getElementByClassName()
○ getElementbyid()



Quiz App

You scored 3 out of 6!