

CLOUD APPLICATION DEVELOPMENT

GROUP 4 ASSIGNMENT ON MULTIPLE QUESTIONS

GROUP MEMBERS

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This is a multiple-choice quiz application that allows users to take a test and receive a percentage score. The application is built using HTML, CSS, and JavaScript.

Getting Started

The quiz consists of five questions, and users can select their answers by clicking on the corresponding radio buttons. Once the user submits the quiz, the application will calculate the user's score and display it on the screen.

Features:

- Five multiple-choice questions
- Dynamically calculates the user's score
- Displays the user's score as a percentage
- Highlights correct and incorrect answers

Technologies Used

- HTML
- CSS
- JavaScript

The code can be accessed at :

<https://github.com/curry-bean/Group4-assignment>

While the hosted version of the code can be viewed at :

<https://group4-multiple-quiz.netlify.app/>

```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Multiple-Choice Quiz</title>
<link rel="stylesheet" href="style.css">
</head>
<body>
<div id="quiz-container">
<h1>Group 4 Multiple-Choice Quiz</h1>
<small>20/02817 Billy Lumumba</small>
<small>20/03342 Betty Wamaitha</small><br>
<small>20/02233 Bonventure Wafula</small>
<small>20/04611 Lilian Peter</small><br>
<small>22/01259 Yvonne Njeru</small>
<form id="quiz-form">
<div class="question">
<h2>What is the capital of France?</h2>
<label>
```

```
<input type="radio" name="q1" value="a">
a) London
</label>
<label>
<input type="radio" name="q1" value="b">
b) Paris
</label>
<label>
<input type="radio" name="q1" value="c">
c) Madrid
</label>
</div>
<div class="question">
<h2>What is the largest organ in the human body? </h2>
<label>
<input type="radio" name="q2" value="a">
a) Heart
</label>
<label>
<input type="radio" name="q2" value="b">
b) Liver
</label>
<label>
<input type="radio" name="q2" value="c">
c) Skin
</label>
</div>
<div class="question">
<h2>Who invented the telephone? </h2>
<label>
<input type="radio" name="q3" value="a">
a) Thomas Edison
</label>
<label>
<input type="radio" name="q3" value="b">
b) Alexander Graham Bell
</label>
<label>
<input type="radio" name="q3" value="c">
c) Nikola Tesla
</label>
</div>
<div class="question">
<h2>What is the largest planet in our solar system? </h2>
<label>
<input type="radio" name="q4" value="a">
a) Mars
</label>
<label>
<input type="radio" name="q4" value="b">
b) Jupiter
```

```

</label>
<label>
<input type="radio" name="q4" value="c">
c) Earth
</label>
</div>
<div class="question">
<h2>What is the smallest country in the world?</h2>
<label>
<input type="radio" name="q5" value="a">
a) Vatican City
</label>
<label>
<input type="radio" name="q5" value="b">
b) Monaco
</label>
<label>
<input type="radio" name="q5" value="c">
c) San Marino
</label>
</div>
<button type="submit">Submit Answers</button>
</form>
<div id="quiz-results"></div>
</div>
<script src="script.js"></script>

</body>
</html>

```

CSS

```

/* Quiz container styles */
#quiz-container {
width: 500px;
margin: 0 auto;
padding: 20px;
border: 1px solid #ccc;
border-radius: 10px;
box-shadow: 0 0 10px rgba(0, 0, 0, 0.2);
background-color: #f8f8f8;
}
#quiz-container h1 {
text-align: center;
font-size: 24px;
margin-bottom: 20px;
}
#quiz-container small{
color: black;
font-family: Verdana, Geneva, Tahoma, sans-serif;

```

```

font-style: italic;
}
#quiz-container .question {
margin-bottom: 20px;
}
#quiz-container .question h2 {
font-size: 20px;
margin-bottom: 10px;
}
#quiz-container .question label {
display: block;
margin-bottom: 10px;
}
#quiz-container .question input[type="radio"] {
margin-right: 10px;
}
#quiz-container button[type="submit"] {
display: block;
margin: 0 auto;
padding: 10px 20px;
background-color: #4CAF50;
border: none;
border-radius: 5px;
color: #fff;
font-size: 16px;
cursor: pointer;
}
/* Quiz results container styles */
#quiz-results {
margin-top: 20px;
padding: 10px;
border: 1px solid #ccc;
border-radius: 10px;
background-color: #fff;
}

```

JavaScript

// Define the quiz questions and answers

```

const quizQuestions = [
{
question: "What is the capital of France?",
answers: {
a: "London",
b: "Paris",
c: "Madrid"
},
correctAnswer: "b"
},
{
question: "What is the largest organ in the human body?",

```

```

answers: {
  a: "Heart",
  b: "Liver",
  c: "Skin"
},
correctAnswer: "c"
},
{
  question: "Who invented the telephone?",
  answers: {
    a: "Thomas Edison",
    b: "Alexander Graham Bell",
    c: "Nikola Tesla"
  },
  correctAnswer: "b"
},
{
  question: "What is the largest planet in our solar system?",
  answers: {
    a: "Mars",
    b: "Jupiter",
    c: "Earth"
  },
  correctAnswer: "b"
},
{
  question: "What is the smallest country in the world?",
  answers: {
    a: "Vatican City",
    b: "Monaco",
    c: "San Marino"
  },
  correctAnswer: "a"
}
];

// Get references to the HTML elements
const quizForm = document.getElementById("quiz-form");
const quizResults = document.getElementById("quiz-results");
// Add an event listener to the form
quizForm.addEventListener("submit", function(event) {
  // Prevent the default form submission behavior
  event.preventDefault();
  // Get the user's answers
  const userAnswers = {
    q1: quizForm.elements.q1.value,
    q2: quizForm.elements.q2.value,
    q3: quizForm.elements.q3.value,
    q4: quizForm.elements.q4.value,
    q5: quizForm.elements.q5.value
  };
  // Check the user's answers against the correct answers

```

```

let numCorrect = 0;
let incorrectAnswers = [];
for (let i = 0; i < quizQuestions.length; i++) {
  if (userAnswers["q" + (i + 1)] === quizQuestions[i].correctAnswer) {
    numCorrect++;
  } else {
    incorrectAnswers.push(i);
  }
}

// Calculate the user's score as a percentage
const score = (numCorrect / quizQuestions.length) * 100;
// Display the user's score and the correct answers to the incorrect questions
let resultsHTML = `<h2>Your Score: ${score}%</h2>`;
if (incorrectAnswers.length > 0) {
  resultsHTML += "<h3>Incorrect Answers:</h3>";
  for (let i = 0; i < incorrectAnswers.length; i++) {
    const questionIndex = incorrectAnswers[i];
    const question = quizQuestions[questionIndex];
    const correctAnswer = question.answers[question.correctAnswer];
    resultsHTML += `<p>${i + 1}. ${question.question}</p>`;
    resultsHTML += `<p><strong>Your answer:</strong> ${
      question.answers[userAnswers["q" + (questionIndex + 1)]]}</p>`;
    resultsHTML += `<p><strong>Correct answer:</strong> ${correctAnswer}</p>`;
  }
}
quizResults.innerHTML = resultsHTML;
});

```