

Welcome To

Our web-technology project's documentary

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Project Overview

This interactive quiz project lets users answer multiple-choice questions with a timer for each question. Feedback is displayed immediately after each answer, and the quiz shuffles questions randomly for each attempt. The background has been customized with a beautiful galaxy image.

Features and Functionality

1. Start and Restart Quiz

- Purpose: Initializes or restarts the quiz with shuffled questions, resets the score, and displays the first question.
- Interaction: Users can retry the quiz after completion or failure.

```
function restartQuiz(message = "") {
    alert(message);
    currentQuestionIndex = 0;
    score = 0;
    scoreEl.textContent = `Score: ${score}`;
    restartBtn.style.display = "none";
    shuffledQuestions = [...questions];
    shuffleArray(shuffledQuestions);
    showQuestion();
}
restartBtn.addEventListener("click", () => restartQuiz());
```

Features and Functionality

2. Shuffling Questions

• Purpose: Ensures a random order of questions to provide a unique experience on each attempt.

```
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]];
    }
}
```

Features and Functionality

3. Displaying Questions

 Purpose: Dynamically displays the current question and its associated answers.

```
function showQuestion() {
   if (currentQuestionIndex >= shuffledQuestions.length) {
       endQuiz();
       return;
   const currentQuestion = shuffledQuestions[currentQuestionIndex];
   questionEl.textContent = currentQuestion.question;
   answersEl.innerHTML = "";
   currentQuestion.answers.forEach((answer, index) => {
        const button = document.createElement("button");
       button.textContent = answer;
       button.classList.add("answer-btn");
       button.addEventListener("click", () => checkAnswer(index));
       answersEl.appendChild(button);
    });
   startTimer();
```

Features and Functionality

4. Answer Feedback

Purpose: Indicates whether the selected answer is correct or incorrect.

```
function checkAnswer(selectedIndex) {
   clearInterval(timer);
   const currentQuestion = shuffledQuestions[currentQuestionIndex];
   if (selectedIndex === currentQuestion.correct) {
        feedbackEl.textContent = "Correct!";
        feedbackEl.style.color = "green";
       score++;
       scoreEl.textContent = `Score: ${score}`;
     else {
        feedbackEl.textContent = "Incorrect!";
        feedbackEl.style.color = "red";
   currentQuestionIndex++;
   setTimeout(() => {
        feedbackEl.textContent = "";
        showQuestion();
    }, 1000);
```

Features and Functionality

5. Timer

• Purpose: Gives users 30 seconds to answer each question. If time expires, the quiz restarts with an alert message.

```
function startTimer() {
    timeLeft = 30;
    timerEl.textContent = `Time left: ${timeLeft} seconds`;
    timer = setInterval(() => {
        timeLeft--;
        timerEl.textContent = `Time left: ${timeLeft} seconds`;
        if (timeLeft <= 0) {
            clearInterval(timer);
            restartQuiz("Time's up!");
        }
    }, 1000);
}</pre>
```

Features and Functionality

- 6. Ending the Quiz
 - Purpose: Concludes the quiz when all questions have been answered.

```
function endQuiz() {
    questionEl.textContent = `Quiz completed! Your score: ${score}`;
    answersEl.innerHTML = "";
    feedbackEl.textContent = "";
    restartBtn.style.display = "block";
    clearInterval(timer);
}
```

UI Design

1. Background

 Description: The webpage background combines a galaxy image with a gradient overlay to enhance visual appeal.

```
body {
    font-family: Arial, sans-serif;
    text-align: center;
    background-image: url('./galaxy.jpg'), linear-gradient(to bottom, □#141e30, □#243b55);
    background-size: cover;
    background-position: center;
    background-blend-mode: overlay;
    color: ■#fff;
    margin: 0;
    padding: 20px;
}
```

UI Design

2. Quiz Container

• Description: The quiz container has a semi-transparent background, rounded corners, and shadow effects for a polished appearance.

```
#quiz-container {
    max-width: 700px;
    margin: auto;
    background: □rgba(0, 0, 0, 0.85);
    padding: 20px;
    border-radius: 15px;
    box-shadow: 0 0 20px □rgba(0, 0, 0, 0.6);
}
```

UI Design

3. Buttons

• Description: Buttons are styled with smooth hover effects and are easy to interact with.

```
.answer-btn {
   padding: 12px 25px;
   background: #009688;
   color: white;
   border: none;
   border-radius: 8px;
   font-size: 1.1em;
   cursor: pointer;
   transition: background 0.3s;
.answer-btn:hover {
   background: ■#00796b;
```

User Flow

- The user clicks "Start" to begin the quiz.
- Questions appear one by one, with a timer counting down from 30 seconds.
- After each answer, feedback appears immediately (either "Correct!" or "Incorrect!").
- The user completes the quiz or runs out of time.
- The "Restart" button allows the user to try again.

Files and Structure

- index.html: Contains the structure of the page.
- style.css: Handles all visual aspects, including layout and design.
- script.js: Contains the logic for quiz flow, question shuffling, timer, and feedback.

- Open index.html in a browser to start the quiz.
- Answer questions within the time limit.
- View feedback after each question.
- Click "Restart" to attempt the quiz again.

THANKS TO YOUR ATTENTION