

I am making a Power Rangers Dino Charge quiz using HTML, CSS, and Javascript.

What is to be done: I have to make a quiz about Power Rangers Dino Charge which was filmed in New Zealand which is for my DigiTech classes internal. I chose to do a quiz about Power Rangers Dino Charge because it was filmed in New Zealand which is the country I live in and I know the show quite a bit so it is relevant to me. Using the information I know about Power Rangers Dino Charge I'm going to make a program that presents as a quiz about the Power Rangers Dino Charge using the coding languages I've learned which are HTML, CSS, and Javascript. This quiz would be fun to present to my classmates because they may love this show or have the suspense to know about it.

Who is it for?

The quiz I am making is for my teacher and classmates.

Specifications and requirements for the program:

1. Ask a minimum of 5 questions about the show
2. Keep track of the score and display it
3. Store at least two types of variables
4. Take input and produce output
5. Use conditionals (Like if and else) and loops
6. Use data that can be stored in an array or list

Example Question:

What is the name of the Red Ranger in Power Rangers Dino Charge?

Answers:

Tyler
Chase
Riley
Koda

Correct Answer: Tyler

When quiz ends: The quiz ends after you finish the quiz and then you get results and if you want to do the quiz again you can restart there is a start again button.

How the score system works

My score system works by if you answer and you get it right or wrong a page alert will appear saying you got it wrong if you answered wrong and right if you answered right, at the end of the quiz it will show your score and tell you if you passed, if you get 4 out of 7 you pass if below that you fail and if above 4 you pass.

Testing and Debugging

Test Case ID	Input Description	Input Provided	Expected Output	Actual Output	Pass/Fail	Changes Made
1.	All answers correct	Q1 "Tyler" Q2 "T-Rex" Q3 "Pink" Q4 "Keeper" Q5 "Siege" Q6 "New Zealand" Q7 "10"	7 out of 7 You pass the quiz	7 out of 7 You pass the quiz	Pass	No Changes were required.
2.	One Answer Incorrect	Q1 "Chase" Q2 "T-Rex" Q3 "Pink" Q4 "Keeper" Q5 "Siege" Q6 "New Zealand" Q7 "10"	6 out of 7 You pass the quiz	6 out of 7 You pass the quiz	Pass	No Changes were Required.

3.	Multiple answers Incorrect	Q1 "Chase" Q2 "StegoSaurus" Q3 "Blue" Q4 "Keeper" Q5 "Siege" Q6 "New Zealand" Q7 "10"	4 out of 7 You pass the quiz	4 out of 7 You pass the quiz	Pass	No Changes were required
4.	Two Answers Correct	Q1 "Tyler" Q2 "T-Rex" Q3 "Blue" Q4 "Zordon" Q5 "Lord Zedd" Q6 "Canada" Q7 "8"	2 out of 7 You pass the quiz	2 out of 7 You fail	Pass	No Changes were required
5.	0 Answers Correct For this test case I'm answering all questions wrong to see if the result shows 0 out of 7 and you failed, even if you passed on your previous attempt and started again and did it all wrong.	Q1 "Chase" Q2 "Stegosaurus" Q3 "Blue" Q4 "Zordon" Q5 "Lord Zedd" Q6 "Canada" Q7 "8"	0 out of 7 You fail	0 out of 7 You fail	Pass	No changes were required

--	--	--	--	--	--	--

Ongoing Improvements:

Not much really, all my codes are working properly so I don't think I need to improve anything, but I could like I could make it better or add more questions I'm satisfied with my quiz so I don't think I need to improve anything.

Were Variables used in my Javascript code?

Yes I used two types of Variables which were: 'currentQuestionIndex' and 'score'

'currentQuestionIndex': This is a variable used to keep track of the index of the current question that is being displayed. This variables helps navigate through the quiz questions that are being currently viewed.

'score' A variable that stores the users correct answers score, whenever the user answers correct the score increases by 1 and at the end after answering all questions you see the final score.

Javascript code:

```
// Array of quiz questions, each with answers, the correct answer, and feedback
const questions = [
  {
    question: "What is the name of the Red Ranger in Power Rangers Dino Charge?",
    answers: ["Tyler", "Chase", "Riley", "Koda"],
    correct: "Tyler",
    feedback: "The Red Ranger's name is Tyler Navarro."
  },
  {
```

```
    question: "What ancient dinosaur fossil do the Rangers find their Energems with?",
    answers: ["T-Rex", "Pterodactyl", "Triceratops", "Stegosaurus"],
    correct: "T-Rex",
    feedback: "The Energems are found with various fossils, but Tyler's Energem is found with a T-Rex fossil."
  },
  {
    question: "What color Ranger is Shelby Watkins?",
    answers: ["Pink", "Blue", "Green", "Purple"],
    correct: "Pink",
    feedback: "Shelby Watkins is the Pink Ranger."
  },
  {
    question: "Who is the mentor to the Dino Charge Rangers?",
    answers: ["Keeper", "Zordon", "Gosei", "Alpha 5"],
    correct: "Keeper",
    feedback: "Keeper is the mentor to the Dino Charge Rangers."
  },
  {
    question: "Which villain seeks the Energems?",
    answers: ["Sledge", "Rita Repulsa", "Lord Zedd", "Goldar"],
    correct: "Sledge",
    feedback: "Sledge is the main villain seeking the Energems."
  },
  {
    question: "Which country was Power Rangers Dino Charge filmed in?",
    answers: ["Australia", "Canada", "United States", "New Zealand"],
    correct: "New Zealand",
```

```
    feedback: "Power Rangers Dino Charge was filmed in New Zealand."
  },
  {
    question: "How many Energems are there in total?",
    answers: ["8", "10", "12", "15"],
    correct: "10",
    feedback: "There are a total of 10 Energems."
  }
];

// Tracks the current question index
let currentQuestionIndex = 0;
// Tracks the user's score
let score = 0;

// Selects the HTML elements where content will be displayed
const questionContainer = document.getElementById('question-container');
const nextBtn = document.getElementById('next-btn');
const scoreDisplay = document.getElementById('score');
const restartBtn = document.getElementById('restart-btn');

// Function to start or restart the quiz
function startQuiz() {
  currentQuestionIndex = 0; // Reset the question index to the first question
  score = 0; // Reset the score to 0
  nextBtn.style.display = 'block'; // Show the "Next" button
  restartBtn.style.display = 'none'; // Hide the "Start Quiz Again" button
  scoreDisplay.innerHTML = ''; // Clear any previous score display
}
```

```

    showQuestion(currentQuestionIndex); // Show the first question
}

// Function to display the current question and answers
function showQuestion(index) {
    questionContainer.innerHTML = `
        <p>${questions[index].question}</p>
        ${questions[index].answers.map((answer, i) =>
            `<button onclick="checkAnswer('${answer}', ${index})" class="btn">${answer}</button>`
        ).join('')}
    `;
    nextBtn.style.display = 'none'; // Hide the "Next" button until an answer is selected
}

// Function to check if the selected answer is correct
function checkAnswer(answer, index) {
    if (answer === questions[index].correct) {
        score++; // Increase score if the answer is correct
        alert(`Correct! ${questions[index].feedback}`); // Notify user it's correct
    } else {
        alert(`Incorrect! ${questions[index].feedback}`); // Notify user it's incorrect
    }
    currentQuestionIndex++; // Move to the next question
    if (currentQuestionIndex < questions.length) {
        showQuestion(currentQuestionIndex); // Show the next question if there are more
    } else {
        endQuiz(); // End the quiz if all questions are answered
    }
}

```

```

}

// Function to display the final score and feedback
function endQuiz() {
  questionContainer.innerHTML = ''; // Clear the question container
  nextBtn.style.display = 'none'; // Hide the "Next" button
  restartBtn.style.display = 'block'; // Show the "Start Quiz Again" button
  let pass = score >= Math.ceil(questions.length / 2); // Determine if user passed
  scoreDisplay.innerHTML = `
    <h2>Your score: ${score}/${questions.length}</h2>
    <h3>${pass ? 'You passed!' : 'You did not pass. Better luck next time!'}</h3>
    ${!pass ? '<p>Here are some details to help you improve:</p>' : ''}
    <ul>
      ${questions.map((q, index) => {
        return `
          <li>
            <strong>${q.question}</strong><br>
            Correct Answer: ${q.correct}<br>
            ${score <= index ? q.feedback : ''}
          </li>
        `;
      })}.join('')}
    </ul>
  `;
}

// Function to restart the quiz by calling startQuiz
function restartQuiz() {

```



```
    startQuiz();
}

// Event listener to move to the next question when the "Next" button is clicked
nextBtn.addEventListener('click', () => {
    currentQuestionIndex++;
    if (currentQuestionIndex < questions.length) {
        showQuestion(currentQuestionIndex); // Show the next question
    } else {
        endQuiz(); // End the quiz if no more questions
    }
});

// Start the quiz when the page loads
startQuiz();
```