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//global variable
// create an empty array
const QuestionArray = [];

//=====
// RETRIEVE THE DATA FROM THE JSON FILE AND STORE IT INTO AN ARRAY OF OBJECTS
fetch("Phase4QuizQuestion.json")
  .then(response => response.json())
  .then(data => {
// The purpose is to retrieve the objects from JSON object, then ...
// add the objects in the JSON object into an array of objects

//determine the number of object in the array / number of question
const LengthArray = data.questions.length

// Loop through the JSON object
for (let i = 0; i < LengthArray; i++){

  //Add a new element into the array
  QuestionArray.push (data.questions[i]);

  // Test the output in console
  //console.log(QuestionArray[i]);
  //console.log("The " + i + " object = " + data.questions[i]);

}

  // call the display function
  displayQuiz();

})
.catch(error => console.log(error));

//=====
//FUNCTION TO DISPLAY THE LIST OF QUIZ QUESTION
function displayQuiz() {
  // Test the output in console
  //console.log(QuestionArray.length);

  for (let i = 0; i < QuestionArray.length; i++){

    let QuestionNumber = `#${i+1}`;
    let QuestionSentence= QuestionArray[i].question;
    let QuestionOption1= QuestionArray[i].choices[0];

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let QuestionOption2= QuestionArray[i].choices[1];
let QuestionOption3= QuestionArray[i].choices[2];
let QuestionOption4= QuestionArray[i].choices[3];
let QuestionAnswer= QuestionArray[i].correctAnswer;

//Test the output
console.log(`The QuestionNumber is: ` + QuestionNumber);
console.log(`The QuestionSetence is: ` + QuestionSentence);
console.log(`The QuestionOption1 is: ` + QuestionOption1);
console.log(`The QuestionOption2 is: ` + QuestionOption2);
console.log(`The QuestionOption3 is: ` + QuestionOption3);
console.log(`The QuestionOption4 is: ` + QuestionOption4);
console.log(`The QuestionAnswer is: ` + QuestionAnswer);

//Display the question
const quizDiv = document.getElementById("quiz");

// create the "Question number" label and append it
const LabelQuestionNumber = document.createElement("label");
LabelQuestionNumber.id = QuestionNumber;
LabelQuestionNumber.textContent = `Question Number:` + QuestionNumber;
quizDiv.appendChild(LabelQuestionNumber);
quizDiv.appendChild(document.createElement("br")); // Add line break

// create the "Question Sentence" label and append it
const LabelQuestionSentence = document.createElement("label");
LabelQuestionSentence.id = QuestionNumber;
LabelQuestionSentence.textContent = QuestionSentence;
quizDiv.appendChild(LabelQuestionSentence);
quizDiv.appendChild(document.createElement("br")); // Add line break

//create the radio button #1 and label and append it
const RadioButton1 = document.createElement("input");
RadioButton1.type = "radio";
RadioButton1.id = QuestionNumber;
RadioButton1.name = QuestionNumber;
RadioButton1.value = QuestionOption1;
RadioButton1.checked = "checked";
quizDiv.appendChild(RadioButton1);

const LabelQuestionRadio1 = document.createElement("label");
LabelQuestionRadio1.id = QuestionNumber;
LabelQuestionRadio1.textContent = QuestionOption2;
quizDiv.appendChild(LabelQuestionRadio1);
quizDiv.appendChild(document.createElement("br")); // Add line break

//create the radio button #2 and label and append it
const RadioButton2 = document.createElement("input");

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RadioButton2.type = "radio";
RadioButton2.id = QuestionNumber;
RadioButton2.name = QuestionNumber;
RadioButton2.value = QuestionOption2;
quizDiv.appendChild(RadioButton2);

const LabelQuestionRadio2 = document.createElement("label");
LabelQuestionRadio2.id = QuestionNumber;
LabelQuestionRadio2.textContent = QuestionOption1;
quizDiv.appendChild(LabelQuestionRadio2);
quizDiv.appendChild(document.createElement("br")); // Add line break

//create the radio button #3 and label and append it
const RadioButton3 = document.createElement("input");
RadioButton3.type = "radio";
RadioButton3.id = QuestionNumber;
RadioButton3.name = QuestionNumber;
RadioButton3.value = QuestionOption3;
quizDiv.appendChild(RadioButton3);

const LabelQuestionRadio3 = document.createElement("label");
LabelQuestionRadio3.id = QuestionNumber;
LabelQuestionRadio3.textContent = QuestionOption3;
quizDiv.appendChild(LabelQuestionRadio3);
quizDiv.appendChild(document.createElement("br")); // Add line break

//create the radio button #4 and label and append it
const RadioButton4 = document.createElement("input");
RadioButton4.type = "radio";
RadioButton4.id = QuestionNumber;
RadioButton4.name = QuestionNumber;
RadioButton4.value = QuestionOption4;
quizDiv.appendChild(RadioButton4);

const LabelQuestionRadio4 = document.createElement("label");
LabelQuestionRadio4.id = QuestionNumber;
LabelQuestionRadio4.textContent = QuestionOption4;
quizDiv.appendChild(LabelQuestionRadio4);
quizDiv.appendChild(document.createElement("br")); // Add line break
quizDiv.appendChild(document.createElement("br")); // Add line break
quizDiv.appendChild(document.createElement("br")); // Add line break

}
}

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// FUNCTION TO EVALUATE THE QUIZ
function evaluateQuiz() {
    //Set the initial value to NIL
    score = 0;

    for (let i = 0; i < QuestionArray.length; i++){
        let QuestionNumber = `#${i+1}`;
        let QuestionAnswer= QuestionArray[i]. correctAnswer;

        var SelectedValue = document.querySelector(`input[name="` + QuestionNumber
+ `"]:checked`).value;

        //test the result: output to console
        console.log("Selected answer for question " + QuestionNumber + " is: " +
SelectedValue);
        console.log("answer for question " + QuestionNumber + " is: " +
QuestionAnswer);

        if (SelectedValue === QuestionAnswer) {score++}
        //test the result: output to console
        console.log(`The score is: ` + score);

        // Call the function to displa the score
        displayScore();

    }
}

//=====
// FUNCTION TO DISPLAY THE score
function displayScore() {

    const scoreResult = document.getElementById("score");
    scoreResult.textContent = `You scored ${score} out of
${QuestionArray.length} question`;

}

//=====
// FUNCTION TO DISPLAY THE ANSWER
function displayAnswer(){
    for (let i = 0; i < QuestionArray.length; i++){

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let QuestionNumber = `#${i+1}`;
let QuestionSentence= QuestionArray[i].question;
let QuestionAnswer= QuestionArray[i].correctAnswer;

//Test the output
console.log(`The QuestionNumber is: ` + QuestionNumber);
console.log(`The QuestionSetence is: ` + QuestionSentence);
console.log(`The QuestionAnswer is: ` + QuestionAnswer);

const quizDiv = document.getElementById("answer");

// create the "Question number" label and append it
const LabelQuestionNumber = document.createElement("label");
LabelQuestionNumber.textContent = `Question Number:` + QuestionNumber;
quizDiv.appendChild(LabelQuestionNumber);
quizDiv.appendChild(document.createElement("br")); // Add line break

// create the "Question Sentence" label and append it
const LabelQuestionSentence = document.createElement("label");
LabelQuestionSentence.textContent = QuestionSentence;
quizDiv.appendChild(LabelQuestionSentence);
quizDiv.appendChild(document.createElement("br")); // Add line break

// create the "Question Answer" label and append it
const LabelQuestionAnswer = document.createElement("label");
LabelQuestionAnswer.textContent = QuestionAnswer;
quizDiv.appendChild(LabelQuestionAnswer);
quizDiv.appendChild(document.createElement("br")); // Add line break

}
}

```