const quizData = [

{

type: "single",

question: "What is the capital of Italy?",

options: ["Paris", "Madrid", "Rome", "Berlin"],

answer: "Rome"

},

{

type: "multi",

question: "Select all fruits:",

options: ["Carrot", "Banana", "Apple", "Broccoli"],

answer: ["Banana", "Apple"]

},

{

type: "fill",

question: "Fill in the blank: Water freezes at \_\_\_\_\_ degrees Celsius.",

answer: "0"

}

];

const quizContainer = document.getElementById('quiz');

const resultsContainer = document.getElementById('results');

const submitButton = document.getElementById('submit');

function buildQuiz() {

const output = [];

quizData.forEach((currentQuestion, questionNumber) => {

let answers = "";

if (currentQuestion.type === "single") {

currentQuestion.options.forEach(option => {

answers += `

<label>

<input type="radio" name="question${questionNumber}" value="${option}">

${option}

</label><br>`;

});

} else if (currentQuestion.type === "multi") {

currentQuestion.options.forEach(option => {

answers += `

<label>

<input type="checkbox" name="question${questionNumber}" value="${option}">

${option}

</label><br>`;

});

} else if (currentQuestion.type === "fill") {

answers = `<input type="text" name="question${questionNumber}" />`;

}

output.push(`

<div class="question"> ${questionNumber + 1}. ${currentQuestion.question} </div>

<div class="answers"> ${answers} </div>

`);

});

quizContainer.innerHTML = output.join('');

}

function showResults() {

let score = 0;

quizData.forEach((currentQuestion, questionNumber) => {

const selector = `input[name=question${questionNumber}]`;

const answersContainer = quizContainer.querySelectorAll(selector);

if (currentQuestion.type === "single") {

const selected = quizContainer.querySelector(`${selector}:checked`);

if (selected && selected.value === currentQuestion.answer) {

score++;

}

} else if (currentQuestion.type === "multi") {

const selected = [];

answersContainer.forEach(input => {

if (input.checked) selected.push(input.value);

});

const correctAnswers = currentQuestion.answer;

const isCorrect =

selected.length === correctAnswers.length &&

selected.every(a => correctAnswers.includes(a));

if (isCorrect) score++;

} else if (currentQuestion.type === "fill") {

const input = quizContainer.querySelector(selector);

if (input && input.value.trim().toLowerCase() === currentQuestion.answer.toLowerCase()) {

score++;

}

}

});

resultsContainer.innerHTML = `Your score is ${score} out of ${quizData.length}`;

}

buildQuiz();

submitButton.addEventListener('click', showResults);