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| **Name** | **Roll Number** |
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| **Web Engineering**  **Assignment 04** | |
| **Course Code: SESD3233** | **Instructor: Rubab Javaid** |
| **Marks: 20** | **Semester: Spring 2025** |
| **Due Date: 22nd June 2025, 11pm on portal and hardcopy in the first class after 27th June 2025. Instructions:**   * **Submission:**   + **All submissions will be on UCP Portal only. Upload zip files of code + all Code on Ms- Word file with screenshot.**   + **Ensure the code is functional and well-documented with comments**     - **Upload a zip file containing all the required code files**   **+ MS-Word document containing the code and screen shot of the output along with group member names and roll number to the UCP Portal before 27th June 2025, 11:59pm.**   * **Plagiarism Policy:** * **Strictly no plagiarism; ensure all work is original. In case of plagiarism, zero marks will be awarded.** | |
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| **Section:** | |

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| **CLO 2** | **Cognitiv e Level** | **Keywords** |
| **Students will be able to demonstrate frontend development proficiency by implementing best coding practices, utilizing modular JavaScript, functional**  **programming, and showcasing technical knowledge and communication skills through project development, presentations, and viva assessment** | **C6** | **Write** |

**Question 01 (CLO-03) 20 Marks**

# Assignment Description:

Create a quiz web app that:

* Loads multiple choice questions from a local JSON file
* Displays each question with radio buttons
* Evaluates user answers on submit
* Shows score and highlights correct answers

# Requirements:

1. Create a file named: questions.json with 5 sample questions

## Sample Structure:

[

{

"question": "Which tag is used to create a hyperlink in HTML?", "options": ["<link>", "<a>", "<href>", "<url>"],

"correctIndex": 1

},

{

"question": "What does CSS stand for?",

"options": ["Computer Style Sheets", "Creative Style Sheets", "Cascading Style Sheets", "Colorful Style Sheets"],

"correctIndex": 2

},

{

"question": "Which of the following is not a JavaScript data type?", "options": ["String", "Boolean", "Float", "Undefined"], "correctIndex": 2

}

]

1. **Fetch Questions from JSON:**
   * Use fetch('questions.json') to load questions
   * Parse JSON and dynamically create quiz layout

## Display Quiz:

* + Each question must show 3–4 options as radio buttons
  + Only one option should be selectable per question

## Submit Logic:

* + Compare selected options with correctIndex
  + Display total score out of total questions
  + Highlight correct and incorrect answers (green/red)

## Error Handling:

* + If JSON fails to load, show a user-friendly message

## Styling (Optional but encouraged):

* + Use CSS to make it neat and readable.

# Submission Requirements:

Students must submit:

* index.html
* style.css (optional for UI)
* script.js
* questions.json
* Documented word file with group member names

# Grading Criteria:

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| **Feature** | **Marks** |
| Fetches JSON and loads questions | 3 |
| Displays MCQs with radio buttons | 3 |
| Evaluates answers and shows score | 3 |
| Highlights correct/incorrect | 3 |
| Neat UI / Error handling | 3 |
| Viva | 5 |
| Total | 20 |

Good Luck