

National University of Computer and Emerging Sciences



Laboratory Manual

for

Web Engineering (SL3003)

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Section	6C 1,2
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Web Development Quiz Game (20 Marks)

1) Registration Screen (4 Total Marks)

a) Player Name Input (2 Marks):

Create a form with a text input for the player's name. As the user types, dynamically display a greeting (e.g., “Hello, [Player Name]!”) and a live character count.

b) Validation (1 Mark):

Prevent the user from proceeding if the input is empty and display an error message if validation fails.

c) Proceed Button (1 Mark):

Include a “Start Quiz” button that, on valid input, hides the registration and reveals the quiz section.

2) Quiz Section (9 Total Marks)

a) Quiz Content (3 Marks):

Present exactly three multiple-choice questions (one at a time) with the following fixed content:

i) Question 1 (1 Mark):

Which HTML tag is used to create a hyperlink?

Options: A) <a>, B) <p>, C) <div>, D) <href>

ii) Question 2 (1 Mark):

Which CSS property controls the text size?

Options: A) font-pixel, B) text-size, C) font-size, D) text-style

iii) Question 3 (1 Mark):

Which JavaScript function logs messages to the console?

Options: A) console.log(), B) alert(), C) print(), D) log.console()

b) Answer Submission & Feedback (4 Marks):

For each question, include a “Submit Answer” button that evaluates the selection and immediately displays feedback (“Correct!” or “Incorrect!”), limiting the user to one attempt per question. Then, show a “Next Question” button (or “View Score” on the final question).

c) **Score Tracking (2 Marks):**

Use JavaScript to track and display the current score and question number (e.g., “Question 2 of 3”) and, at the end, present a final score summary (e.g., “You scored 2 out of 3!”).

3) **Responsive Design & Theme Switching (5 Total Marks)**

a) **Responsive Layout (3 Marks):**

For large screens, center a container with a light background, using a two-column layout where applicable (headings: 32px; labels/buttons: 26px). For mobile devices, stack elements vertically, switch to a dark mode (with adjusted colours), and reduce font sizes (headings: 20px; labels/buttons: 14px).

b) **Theme Selector & Instructions Toggle (2 Marks):**

Include a dropdown with options (Light, Dark, Blue) to dynamically apply the selected theme across the application and add a toggle button to show/hide an “Instructions” section (hidden by default).

Note: Organize your solution into index.html, styles.css, and script.js (with the <script> tag at the end of the <body>). Ensure your code is clean, well-indented, and properly commented. There are marks for this thing.