National University of Computer and Emerging Sciences

Laboratory Manual

for

Web Engineering
(SL3003)

Lab Instructors	Sana Ejaz, Hassan Raza
Section	6C 1,2
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Department of Software Engineering

FAST-NU, Lahore, Pakistan

Lab 4: DOM Manipulation using Javascript

Guide:

Inserting the script.js file into your HTML is super easy. The format is like how you included the CSS file in your previous lab.

```
<body>

  <script src="script.js"></script>

</body>
```

And an important thing to note about this syntax is that the script is always* included at the **bottom** of your HTML code (after all your body code). This is the right way to do it as your script manipulates the DOM, the DOM must be rendered before it works. Another positive side effect is that your page will get loaded in the browser and present the content before all scripts are loaded.

Task 1: Enhancing the Student Portal Form with JavaScript Objective: Introduce JavaScript for interactivity in forms.

Instructions:
1. Add an input field for the student's name in the existing form.
2. Use JavaScript to update a greeting message dynamically based on the entered name.
3. Implement character counting for the name input field and display the count next to it.
4. Validate the form using JavaScript to ensure that all required fields are filled before submission.
5. Prevent form submission if fields are empty and display appropriate error messages.

Task 2: Dynamic Profile Section Styling and Interactivity Objective: Apply JavaScript to modify CSS properties dynamically.

Instructions:
1. Add a dropdown allowing users to select a profile theme (e.g., Light, Dark, Blue).
2. Use JavaScript to apply the selected theme by changing background color and text color dynamically.
3. Implement a toggle button to show or hide the profile description.

Task 3: Interactive Course Registration Page Objective: Use JavaScript to manage form selections and display feedback.

Instructions:
1. Modify the course registration page to include checkboxes for different courses.
2. Use JavaScript to ensure at least one course is selected before submission.
3. Display the selected courses dynamically below the form using an array.
4. Provide a button to reset all selections.