**DOM & EVENTS ACTIVITY**

1. **Create a button element and write JavaScript to change its background color to red when clicked.**
2. **Write JavaScript to display an alert with the message "Hello World" when a user hovers over a paragraph element.**
3. **Create an input field and a button. Write JavaScript that displays the value entered in the input field inside a <div> when the button is clicked.**
4. **Write JavaScript to dynamically add a new list item to an existing unordered list (<ul>) when a button is clicked.**
5. **Create a simple form with a name input field. Use JavaScript to prevent the form from submitting if the input field is empty and display an error message below the form.**
6. **Write JavaScript to toggle the visibility of a <div> element when a button is clicked (i.e., hide it if it’s visible and show it if it’s hidden).**
7. **Create an image element in HTML. Write JavaScript to change the image source when the image is double-clicked.**
8. **Write a JavaScript function to add a new list item to an unordered list each time a**

**button is clicked.**

1. **Create a simple counter using two buttons: one for incrementing and one for decrementing a number displayed in a <span>. Implement the logic using JavaScript.**
2. **Write JavaScript to change the text of a heading (<h1>) when it is hovered on it.**

**Form Validation Activities**

1. Basic Required Fields

o Create a form with text inputs for username and email. Write JavaScript to ensure

that both fields are filled out before allowing the form to be submitted.

2. Email Validation

o Extend the previous form validation to check if the entered email address is in a

valid format (e.g., contains an &quot;@&quot; and a domain).

3. Password Confirmation

o Create a form with inputs for a password and password confirmation. Write

JavaScript to ensure that both passwords match before allowing the form to be

Submitted.

4. Length Validation

o Add a field for a username in the form and write JavaScript to ensure the

username is at least 5 characters long before submission.

5. Dynamic Error Messages

o Enhance the previous forms to display error messages next to the respective fields

if validation fails, rather than using alerts.

6. Real-Time Validation

o Create a form with username, email, and password fields. Write JavaScript to

validate these fields in real-time as the user types and display appropriate

messages (e.g., &quot;Username is too short&quot; or &quot;Invalid email format&quot;).