

Experiment No. 3

Title: Write a program demonstrating JavaScript functions and different validations.

Theory: JavaScript plays a key role in adding interactivity and functionality to HTML pages, especially in forms like a registration page.

- It allows developers to implement functions that respond to user actions, such as validating form input in real-time before submission.
- With JavaScript, you can check if all required fields are filled, passwords match, or if the email format is correct, ensuring proper data entry.
- This immediate feedback enhances user experience by preventing incomplete or incorrect submissions.
- Client-side validations reduce server load, as they catch errors early on, and also improve security by minimizing the risk of malicious input. JavaScript functions ensure a seamless, user-friendly registration process with smooth, dynamic interactions.

Sample Code:

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Register with Validation</title>
7      <style>
8          body {
9              font-family: Arial, sans-serif;
10             background-color: #f0f4f8;
11             color: #333;
12             margin: 0;
13             padding: 0;
14         }
15         .container {
16             max-width: 400px;
17             margin: 50px auto;
18             padding: 20px;
19             background-color: #fff;
20             border-radius: 8px;
21             box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
22         }
23         h2 {
24             text-align: center;
25             color: #2c3e50;
26         }
27         input[type="text"],
28         input[type="password"],
29         input[type="email"] {
30             width: 100%;
31             padding: 10px;
32             margin: 10px 0;
33             border: 1px solid #ccc;
34             border-radius: 4px;
35             box-sizing: border-box;
36         }
37         button {
38             width: 100%;
39             padding: 10px;
40             background-color: #3498db;
41             border: none;
42             color: white;
43             border-radius: 4px;
44             cursor: pointer;
45         }
```

Output:

The image shows a registration form titled "Register". It contains four input fields: "Username" with placeholder text "Enter your username", "Email" with placeholder text "Enter your email", "Password" with placeholder text "Enter your password", and "Confirm Password" with placeholder text "Confirm your password". Below these fields is a blue button labeled "Register". The form is set against a light blue background with a white rounded rectangle containing the form elements.

Conclusion:

In conclusion, JavaScript functions and validations are vital for ensuring the accuracy and completeness of data on a registration page. They provide real-time feedback, enhance user experience, and reduce server load by catching errors early. JavaScript also improves security by preventing invalid or harmful inputs. Overall, it streamlines the registration process and ensures a smoother, more efficient user interaction.