

22CS450-WEB PROGRAMMING

LAB-0

HTML TAGS AND DESCRIPTION

1. <html>

- Root element of the HTML document.
- Contains all other HTML elements.

2. <head>

- Holds meta information about the document.
- Includes title, styles, and character encoding.

3. <meta>

- Provides metadata like character set and viewport settings.
- Helps with responsive design and correct text display.

4. <title>

- Sets the title shown on the browser tab.

5. <style>

- Used to write internal CSS inside the HTML file.
- Controls layout, colors, fonts, and design.

6. <body>

- Contains all visible content of the webpage.

7. **<div>**

- A container element used to group content.
- Helps in layout and styling (used as .container).

8. **<h2>**

- Heading tag used for the form title.
- Represents a level-2 heading.

9. **<form>**

- Used to collect user input.
- Handles form submission and validation.

10. **<table>**

- Used to arrange form elements in rows and columns.
- Helps create a structured layout.

11. **<tr>**

- Defines a table row.
- Holds table cells inside it.

12. **<td>**

- Defines a table data cell.
- Contains labels, inputs, and messages.

13. **<input>**

- Used to accept user input.
- Types used:
 - text → name, email
 - password → password fields

14. **<select>**

- Creates a drop-down list.
- Used for gender selection.

15. **<option>**

- Defines options inside the **<select>** tag.
- Represents selectable values.

16. **<button>**

- Creates a clickable button.
- Used to submit the form.

17. **<script>**

- Contains JavaScript code.
- Used for form validation logic.

SOURCE CODE:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <title>Registration Form</title>
  <style>

    body{
      background: #f2f2f2;
      font-family: Arial, Helvetica, sans-serif;
    }
    .container{
      width:500px;
      margin: 60px auto;
      background: white;
      padding: 25px;
      border-radius: 8px;
      box-shadow: 0 0 10px rgba(0,0,0,0.1);
    }
    h2{
      text-align: center;
      margin-bottom: 20px;
    }
    table{
      width:100%;
      border-collapse: collapse;
    }
    td{
      padding: 10px;
    }
    input,select{
      width:100%;
```

```

        padding: 7px;
    }
    button{
        padding: 10px 20px;
        background-color:#aaa;
        color: black;
        border: none;
        cursor: pointer;
        border-radius: 4px;
    }
    button:hover{
        color: #aaa;
        background-color: black;
    }
    .error{
        color:red;
        font-size: 12px;
    }
</style>
</head>
<body>
    <div class="container">
        <h2>Registration Form</h2>
        <form onsubmit="return validateForm()"><table>
            <tr>
                <td>Full Name</td>
                <td>
                    <input type="text" id="name" required>
                    <div class="error" id="nameError"></div>
                </td>
            </tr>
            <tr>
                <td>Email</td>
                <td>
                    <input type="text" id="email" required>
                    <div class="error" id="emailError"></div>
                </td>
            </tr>
        </table>
    </div>

```

```

</tr>
<tr>
  <td>Password</td>
  <td>
    <input type="password" id="password" required>
    <div class="error" id="passwordError"></div>
  </td>
</tr>
<tr>
  <td>Confirm Password</td>
  <td>
    <input type="password" id="confirmPassword" required>
    <div class="error" id="confirmPasswordError"></div>
  </td>
</tr>
<tr>
  <td>Gender</td>
  <td>
    <select name="" id="gender">
      <option value="">Select</option>
      <option value="male">Male</option>
      <option value="female">Female</option>
      <option value="others">Others</option>
    </select>
    <div class="error" id="genderError"></div>
  </td>
</tr>
<tr>
  <td colspan="2" align="center">
    <button type="submit">Register</button>
  </td>
</tr>
</table></form>
</div>
<script>
function validateForm(){
  let name=document.getElementById("name").value.trim();

```

```

    let email=document.getElementById("email").value.trim();
    let password=document.getElementById("password").value;
    let
confirmPassword=document.getElementById("confirmPassword").value;
    let gender=document.getElementById("gender").value;
    document.getElementById("nameError").innerHTML="";
    document.getElementById("emailError").innerHTML="";
    document.getElementById("passwordError").innerHTML="";

document.getElementById("confirmPasswordError").innerHTML="";
    document.getElementById("genderError").innerHTML="";

    let valid=true;
    if(name===""){
        document.getElementById("nameError").innerHTML="Name is
required";
        valid=false;
    }
    let emailPattern=/^[^\s@]+@[^\s@]+\.[^\s@]+$/;
    if(email===""){
        document.getElementById("emailError").innerHTML="Email is
required";
        valid=false;
    }else if(!emailPattern.test(email)){
        document.getElementById("emailError").innerHTML="Invalid
email format";
        valid=false;
    }
    if(password===""){
document.getElementById("passwordError").innerHTML="Pasword is
required";
        valid=false;
    }else if(password.length<6){

document.getElementById("passwordError").innerHTML="Password
must be atleast 6 characters long.";

```

```
        valid=false;
    }
    if (confirmPassword === "") {

document.getElementById("confirmPasswordError").innerHTML =
"Confirm password";
        valid = false;
    } else if (password !== confirmPassword) {

document.getElementById("confirmPasswordError").innerHTML =
"Passwords do not match";
        valid = false;
    }

    if (gender === "") {
        document.getElementById("genderError").innerHTML =
"Select gender";
        valid = false;
    }

    return valid;

}
</script>

</body>
</html>
```


OUTPUT:

