

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>
    <button type="submit">Submit</button>
</form>
</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=/^\w+@\w+\.\w+$/;
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:

A screenshot of a web browser window titled "Registration Form". The URL in the address bar is 127.0.0.1:3000/2123_lab0.html?serverWindowId=c0bba6f4-37a3-4fad-ad18-e386549b7863. The page displays a registration form with five input fields: "Full Name", "Email", "Password", "Confirm Password", and "Gender". The "Gender" field contains a dropdown menu with "Select" as the current option. A "Register" button is located at the bottom right of the form.

A screenshot of a web browser window titled "Registration Form". The URL in the address bar is 127.0.0.1:3000/2123_lab0.html?serverWindowId=c0bba6f4-37a3-4fad-ad18-e386549b7863. The page displays a registration form with five input fields: "Full Name", "Email", "Password", "Confirm Password", and "Gender". The "Email" field is empty and has a red border around it, indicating it is a required field. An error message "Please fill out this field." is displayed above the "Email" field. The "Gender" field contains a dropdown menu with "Select" as the current option. A "Register" button is located at the bottom right of the form.