

*PRN: 21070126039      Name: Jainil Patel      Batch: AI/ML A2*

## *Full Stack Developments - LAB 2*

### *Responsive Form*

#### **Problem:**

Create a fully responsive webpage for a registration form using HTML and CSS. The design should prioritize user experience on various devices and screen sizes. Additionally, implement form validation to ensure accurate user input.

Include fields for the following information:

- Full Name (First Name, Last Name)
- Email Address
- Password
- Confirm Password
- Date of Birth
- Gender (Radio buttons or dropdown)
- Country (Dropdown menu)
- Profile Picture Upload (Include a file input)

Apply appropriate input types and validation attributes in HTML.

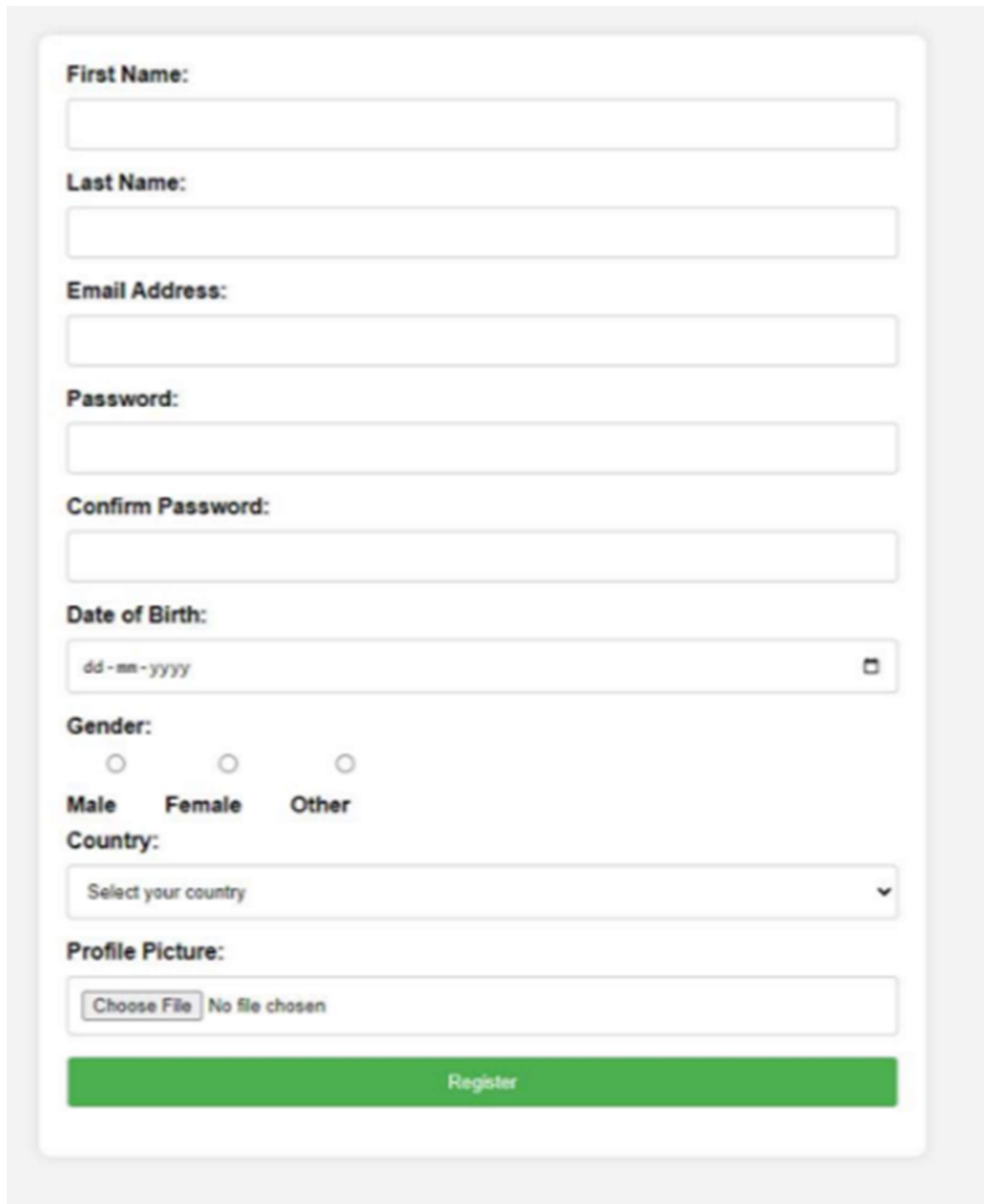
Style form elements for a cohesive and user-friendly appearance.

Form Validation: Implement client-side validation using HTML5 validation attributes. Provide clear and concise error messages for incorrect user input.

Responsive Design: Ensure the webpage is fully responsive for different devices (mobile, tablet, desktop).

#### **Objective:**

The objective of this experiment is to design and implement a fully responsive registration form webpage using HTML and CSS. The primary goals include prioritizing user experience across various devices and screen sizes, implementing form validation to ensure accurate user input, and creating a visually appealing and cohesive design.

**Expected Output:**

The image shows a registration form with the following fields and controls:

- First Name:** A text input field.
- Last Name:** A text input field.
- Email Address:** A text input field.
- Password:** A text input field.
- Confirm Password:** A text input field.
- Date of Birth:** A date picker with a placeholder "dd-mm-yyyy" and a calendar icon.
- Gender:** Three radio buttons labeled "Male", "Female", and "Other".
- Country:** A dropdown menu with the placeholder text "Select your country" and a downward arrow.
- Profile Picture:** A file upload area with a "Choose File" button and the text "No file chosen".
- Register:** A large green button at the bottom.

**Code:**

```
<html>
  <head>
    <title>Responsive Form - Lab 2</title>

    <style>
      body{
        font-family: Arial, Helvetica, sans-serif;
        display: flex;
        justify-content: center;
        align-items: center;
        height: 100vh ;
        background-color: #f9f9f9;
      }

      form{
        max-width: 600px;
        width: 100%;
        background-color: #fff;
        padding: 20px;
        box-shadow: 0 0 10px 0 rgba(0,0,0,.5);
        border-radius: 8px;
      }

      label{
        display: block;
        margin-bottom: 8px;
        font-weight: bold ;
      }

      input,select{
        width: 100%;
        padding: 8px;
        border-radius: 4px;
        margin-bottom: 15px;
        border: 1px solid #ccc;
        box-sizing: border-box;
      }

      input[type=submit]{
        background-color: #45a049;
        color: white;
      }
      input[type=submit]:hover{
        background-color: green;
        color: white;
      }

      input[type=radio]{
        margin-right: 5px;
```

```

    }

    .group {
      display: flex;
      gap: 10px;
    }

</style>

</head>
<body>

  <form>
    <center>
      <h1>Registration Form</h1>
    </center>

    <label for = "fname">First Name :</label>
    <input type="text" name = "fname" >

    <label for = "lname">Last Name :</label>
    <input type="text" name = "lname" >

    <label for = "email">Email Address :</label>
    <input type="text" name = "email" >

    <label for = "pwd">Password :</label>
    <input type="password" name = "pwd" >

    <label for = "cpwd">Confirm Password :</label>
    <input type="password" name = "cpwd" >

    <label for = "date">Date of Birth :</label>
    <input type="date" name = "date" >

    <label for="gender">Gender:</label>
    <div class="group">
      <input type="radio" id="male" name="gender">
      <label for="male">Male</label>

      <input type="radio" id="female" name="gender">
      <label for="female">Female</label>

      <input type="radio" id="other" name="gender">
      <label for="other">Other</label>
    </div>
  </form>

```

```

<label for = "country">Country :</label>
<select name="country" >
    <option value="India">India</option>
    <option value="USA">USA</option>
    <option value="UK">UK</option>
    <option value="Canada">Canada</option>
    <option value="Australia">Australia</option>

</select>

<label for = "profile">Profile Picture :</label>
<input type="file" name = "profile" >

<input type="submit" value="Register">

</form>

</body>
</html>

```

## Output:

The screenshot shows a web browser window with the URL `127.0.0.1:5500/Labs/Lab%202/form.html`. The browser's address bar and tabs are visible at the top. The main content area displays a registration form titled "Registration Form". The form contains the following fields and elements:

- First Name :** A text input field.
- Last Name :** A text input field.
- Email Address :** A text input field.
- Password :** A text input field.
- Confirm Password :** A text input field.
- Date of Birth :** A date picker with the format `dd-mm-yyyy`.
- Gender:** Three radio buttons labeled **Male**, **Female**, and **Other**.
- Country :** A dropdown menu with **India** selected.
- Profile Picture :** A file upload button labeled **Choose File** and the text **No file chosen**.
- Register** button: A green button at the bottom of the form.

# Registration Form

**First Name :**

**Last Name :**

**Email Address :**

**Password :**

**Confirm Password :**

**Date of Birth :**

**Gender:**

☐

**Male**

☐

**Female**

☐

**Other**

**Country :**

**Profile Picture :**

 No file chosen

**Register**

## Design Choices:

- **HTML Structure:** I structured the HTML document with semantic tags to enhance readability and accessibility. I used `<form>` to encapsulate the registration form and `<label>` for labeling input fields.
- **CSS Styling:** CSS styles were applied to enhance the visual appearance and usability of the form. I focused on creating a clean and modern interface using a combination of font styles, background colors, padding, and border-radius for elements.
- **Responsive Design:** The webpage is designed to be fully responsive across different devices and screen sizes. I used flexbox layout and percentage-based widths to ensure elements adapt well to various viewport dimensions.
- **Input Types and Validation:** I utilized appropriate input types such as text, password, date, and file for different form fields. Additionally, HTML5 validation attributes were incorporated for client-side validation to ensure accurate user input.

## Challenges Faced:

- **Styling Consistency:** Maintaining consistent styling across different elements and ensuring they align properly posed a challenge, especially when dealing with form elements like radio buttons and select dropdowns.
- **Responsive Design:** Ensuring that the form layout remains user-friendly and accessible on various devices required careful consideration of spacing, font sizes, and element positioning.

## HTML Tags used:

1. **`<html>`:** Defines the root element of an HTML document.

```
<html>
  <!-- HTML content goes here -->
</html>
```

2. **`<head>`:** Contains meta-information about the HTML document, such as title, links to stylesheets, and scripts.

```
<head>
  <title>My Page Title</title>
  <!-- Other meta-information goes here -->
</head>
```

3. **`<title>`:** Sets the title of the HTML document displayed in the browser's title bar or tab.

```
<title>My Page Title</title>
```

4. **`<style>`:** Defines CSS styles that apply to elements within the document.

```
<style>
  body {
    font-family: Arial, sans-serif;
  }
</style>
```

5. **<body>**: Contains the content of the HTML document that is displayed in the browser window.

```
<body>
  <h1>Hello, World!</h1>
  <p>This is a paragraph.</p>
</body>
```

6. **<input>**: Defines an input control that allows.

- **<input type="text">**: Creates a single-line text input field.
- **<input type="checkbox">**: Creates a checkbox input field.
- **<input type="radio">**: Creates a radio button input field.
- **<input type="submit">**: Creates a submit button.
- **<input type="reset">**: Creates a reset button.

```
<input type="text" name="username" placeholder="Enter your username">
```

7. **<select>**: Defines a dropdown list.

```
<select name="country" >
  <option value="India">India</option>
  <option value="USA">USA</option>
  <option value="UK">UK</option>
  <option value="Canada">Canada</option>
</select>
```

8. **<option>**: Defines an option in a dropdown list.

```
<option value="volvo">Volvo</option>
```

9. **<label>**: Defines a label for an **<input>** element.

```
<label for="username">Username:</label>
<input type="text" id="username" name="username">
```

10. **<textarea>**: Defines a multiline input control (text area).

```
<textarea name="message" rows="4" cols="50"></textarea>
```

11. **<radio>**: Defines a radio button input control.

```
<input type="radio" id="male" name="gender" value="male">
<label for="male">Male</label>
```

12. **<submit>**: Defines a submit button for submitting a form.

```
<input type="submit" value="Submit">
```



## CSS Styles used:

### 1. Body Styles:

```
body{
  font-family: Arial, Helvetica, sans-serif;
  display: flex;
  justify-content: center;
  align-items: center;
  height: 100vh ;
  background-color: #f9f9f9;
}
```

**font-family:** Sets the font for the entire document to Arial, Helvetica, or sans-serif as fallback.

**display, justify-content, align-items:** These properties together center the content vertically and horizontally within the viewport.

**height:** Sets the height of the body to 100% of the viewport height.

**background-color:** Sets the background colour of the body to a light gray (#f9f9f9).

### 2. Form Styles:

```
form {
  max-width: 600px;
  width: 100%;
  background-color: #fff;
  padding: 20px;
  box-shadow: 0 0 10px 0 rgba(0,0,0,.5);
  border-radius: 8px;
}
```

**max-width:** Limits the maximum width of the form to 600 pixels.

**width:** Makes the form occupy 100% of the available width.

**background-color:** Sets the background colour of the form to white.

**padding:** Adds 20 pixels of padding inside the form.

**box-shadow:** Adds a shadow effect to the form, giving it a raised appearance.

**border-radius:** Rounds the corners of the form, making it visually appealing.

### 3. Label and Input Styles:

```
label{
  display: block;
  margin-bottom: 8px;
  font-weight:bold ;
}

input,select{
  width: 100%;
  padding: 8px;
  border-radius: 4px;
  margin-bottom: 15px;
  border: 1px solid #ccc;
  box-sizing: border-box;
```

```
}
```

**label:** Sets the labels to be displayed as blocks with bold font-weight and a margin at the bottom for spacing.

**input, select:** Applies consistent styling to input fields and select dropdowns.

**width:** Makes the inputs and selects occupy the full width of their container.

**padding:** Adds 8 pixels of padding inside the inputs and selects.

**border-radius:** Rounds the corners of the inputs and selects.

**margin-bottom:** Adds spacing between input fields.

**border:** Adds a 1-pixel solid border around the inputs and selects.

**box-sizing:** Ensures that padding and border are included in the specified width and height.

#### 4. Submit Button Styles:

```
input[type=submit]{
  background-color: #45a049;
  color: white;
}
input[type=submit]:hover{
  background-color: green;
  color: white;
}
```

**input[type=submit]:** Styles the submit button with a green background and white text.

**input[type=submit]: hover:** Specifies the hover effect of the submit button, changing its background colour to green on hover.

#### 5. Radio Button Group Styles:

```
input[type=radio]{
  margin-right: 5px;
}

.group {
  display: flex;
  gap: 10px;
}
```

**input[type=radio]:** Adds a 5-pixel margin to the right of radio buttons for spacing.

**.group:** Defines a flex container for radio buttons to ensure they are displayed in a row with a gap of 10 pixels between them.