Experiment - 2
Design a responsive webpage for a registration form using HTML and CSS.

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OBJECTIVE -
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
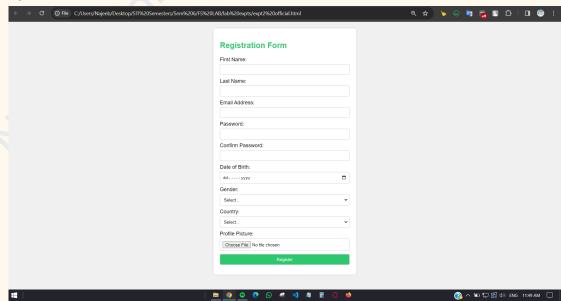validation to ensure accurate user input.

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CODE -

```html
<!--By Najeeb Fariduddin Saiyed - 21070126057 -->
<!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 {
            font-family: Arial, sans-serif; /* Set the font family for better readability */
            background-color: #f4f4f4; /* Set the background color */
            margin: 0;
            padding: 0;
        }

        form {
            max-width: 400px; /* Set the maximum width of the form */
            margin: 20px auto; /* Center the form horizontally with some margin */
            background-color: #fff; /* Set the background color of the form */
            padding: 20px; /* Add some padding inside the form */
            border-radius: 8px; /* Add rounded corners to the form */
```
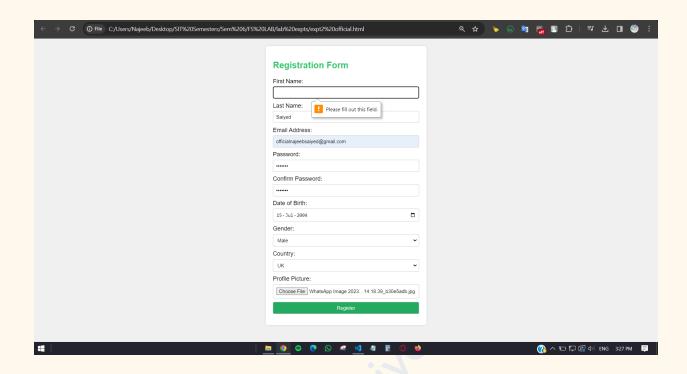
```css
        box-shadow: 0 0 10px rgba(0, 0, 0, 0.1); /* Add a subtle box shadow for depth */
      }

      h2 {
        color: #2ecc71; /* Set the color of heading 2 */
      }

      label {
        display: block;
        margin-bottom: 5px; /* Add some margin below each label */
      }

      input,
      select,
      button {
        width: 100%; /* Make the inputs, select, and button full width */
        padding: 8px; /* Add padding inside these elements */
        margin-bottom: 10px; /* Add margin at the bottom for spacing */
        box-sizing: border-box; /* Include padding and border in the element's total width and
height */
        border: 1px solid #ccc; /* Add a border to these elements */
        border-radius: 4px; /* Add rounded corners */
      }

      button {
        background-color: #2ecc71; /* Set the background color of the button */
        color: #fff; /* Set the text color of the button */
        cursor: pointer; /* Change cursor to pointer on hover */
      }

      button:hover {
        background-color: #27ae60; /* Change button background color on hover */
      }
    </style>
  </head>
  <body>
    <form id="registrationForm" action="#" method="post">
      <h2>Registration Form</h2>

      <!-- Full Name -->
      <label for="firstName">First Name:</label> <!-- Label for the first name input field
-->
      <input type="text" id="firstName" name="firstName" required> <!-- Input field for the
first name -->

      <br>
```

```html
    <label for="lastName">Last Name:</label> <!-- Label for the last name input field -->
    <input type="text" id="lastName" name="lastName" required> <!-- Input field for the
last name -->

    <br>

    <!-- Email -->
    <label for="email">Email Address:</label> <!-- Label for the email input field -->
    <input type="email" id="email" name="email" required> <!-- Input field for the email
-->

    <br>

    <!-- Password -->
    <label for="password">Password:</label> <!-- Label for the password input field -->
    <input type="password" id="password" name="password" required> <!-- Input field for
the password -->

    <br>

    <label for="confirmPassword">Confirm Password:</label> <!-- Label for the confirm
password input field -->
    <input type="password" id="confirmPassword" name="confirmPassword" required>
<!-- Input field for confirming password -->

    <br>

    <!-- Date of Birth -->
    <label for="dob">Date of Birth:</label> <!-- Label for the date of birth input field -->
    <input type="date" id="dob" name="dob" required> <!-- Input field for the date of birth
-->

    <br>

    <!-- Gender -->
    <label>Gender:</label> <!-- Label for the gender select dropdown -->
    <select id="gender" name="gender" required> <!-- Select dropdown for gender
selection -->
        <option value="">Select...</option>
        <option value="male">Male</option>
        <option value="female">Female</option>
        <option value="other">Other</option>
    </select>

    <br>
```

```
<!-- Country -->
<label for="country">Country:</label> <!-- Label for the country select dropdown -->
<select id="country" name="country" required> <!-- Select dropdown for country selection -->
    <option value="">Select...</option>
    <option value="india">India</option>
    <option value="usa">USA</option>
    <option value="uk">UK</option>
</select>

<br>

<!-- Profile Picture -->
<label for="profilePicture">Profile Picture:</label> <!-- Label for the profile picture input field -->
<input type="file" id="profilePicture" name="profilePicture" accept="image/*"> <!-- Input field for uploading profile picture -->

<br>

<button type="submit">Register</button> <!-- Submit button for registering -->
    </form>
</body>
</html>
<!--By Najeeb Fariduddin Saiyed - 21070126057 -->
```

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OUTPUT -

ReadME.md -

Registration Form

This HTML registration form is designed to collect user information for registration purposes. Here are the design choices, challenges faced, additional features implemented, and a list of tags used:

Design Choices:

1. **Form Layout: The form is designed using a simple layout to ensure ease of use for users. It is centered on the page and styled for readability.**

2. **Input Fields: Various input fields are provided for collecting different types of user information such as name, email, password, date of birth, gender, country, and profile picture.**

3. **Validation: Input fields are marked as required to ensure that users provide necessary information before submitting the form.**

4. **Styling: Basic CSS styling is applied to enhance the visual appearance of the form, including font selection, background color, input field styling, and button design.**

Challenges Faced:

1. **Cross-browser Compatibility: Ensuring consistent appearance and functionality across different web browsers can be a challenge, requiring testing and adjustments.**
2. **Accessibility: Ensuring the form is accessible to users with disabilities by providing appropriate labels and ensuring keyboard navigation.**
3. **Form Security: Implementing secure password handling and form submission to protect user data from potential security threats.**

Additional Features Implemented:

1. **Password Confirmation: Added a field for confirming the password to prevent errors during registration.**
2. **Date of Birth Input: Included a date picker for selecting the date of birth, improving user experience.**
3. **Gender Selection: Provided options for selecting gender to capture diverse user demographics.**
4. **Country Selection: Added a dropdown menu for selecting the user's country, enhancing data collection.**

List of HTML Tags Used:

1. `<!DOCTYPE html>`:
    1. **Explanation: Specifies the HTML version being used, which is HTML5.**
    2. **Usage: Declares the document type and version to ensure proper rendering by web browsers.**
2. `<html>`:
    1. **Explanation: Represents the root element of an HTML document.**

2. Usage: Wraps all the content of the HTML document, providing the document structure.

3. `<head>`:
   1. Explanation: Contains meta-information about the HTML document, such as title, metadata, and links to external resources.
   2. Usage: Includes the document's metadata and links to CSS stylesheets and JavaScript files.

4. `<meta>`:
   1. Explanation: Provides metadata about the HTML document, such as character encoding, viewport settings, and author information.
   2. Usage: Specifies character encoding and viewport settings for responsive design.

5. `<title>`:
   1. Explanation: Sets the title of the HTML document, which appears in the browser tab.
   2. Usage: Sets the title of the webpage to "Registration Form".

6. `<style>`:
   1. Explanation: Defines CSS styles for the HTML document or a specific section of the document.
   2. Usage: Contains CSS rules for styling various elements within the form, such as fonts, colors, and layout.

7. `<body>`:
   1. Explanation: Contains the content of the HTML document that is visible to the user.
   2. Usage: Wraps all the visible content of the webpage, including the form elements and text.

8. `<form>`:
   1. Explanation: Represents an HTML form for user input.
   2. Usage: Contains all the input fields and elements related to user registration.

9. `<h2>`:
   1. Explanation: Defines a level 2 heading, indicating a subsection within the document.
   2. Usage: Displays the heading "Registration Form" to provide a clear title for the form.

10. `<label>`:
   1. Explanation: Defines a label for an input element, providing a description or name for the input field.
   2. Usage: Labels each input field to indicate the type of information expected from the user.

11. `<input>`:
   1. Explanation: Represents an input control within a form, such as text input, password input, etc.
   2. Usage: Creates input fields for users to enter their information, such as first name, last name, email, password, etc.

12. `<select>`:
   1. Explanation: Represents a dropdown list from which users can select one or more options.
   2. Usage: Provides dropdown menus for selecting options, such as gender and country.

13. `<option>`:
   1. Explanation: Defines an option in a dropdown list.
   2. Usage: Specifies the options available for selection within dropdown menus, such as male, female, other, India, USA, UK, etc.

14. `<button>`:
   1. Explanation: Represents a clickable button.
   2. Usage: Creates a submit button for users to register after filling out the form.

These HTML tags are essential for structuring the document, providing metadata, styling the content, and creating interactive form elements for user input.

CSS and Components:

CSS (Cascading Style Sheets) is utilized to style the HTML elements and components of the registration form. Components include input fields, buttons, labels, and overall layout. By applying CSS styles, the appearance, layout, and visual presentation of these components are enhanced, contributing to a cohesive and visually appealing user interface.

Feel free to explore and interact with the form. Your feedback and suggestions for improvement are highly appreciated!

By Najeeb Fariduddin Saiyed - 21070126057

THANK YOU FOR READING
HAVE A GREAT DAY!