<u>**Test Plan Outline for Online Registration Form**</u>

1. **Introduction**

This test plan outlines the strategy, scope, and schedule for testing the online registration form for the website. The form is designed to collect user information such as Full Name, Email Address, Password, Confirm Password, Date of Birth, Gender, and Newsletter Subscription preferences.

2. **Objectives**

- Verify that the registration form collects and validates user input correctly.
- Ensure appropriate error messages are displayed for invalid inputs.
- Confirm successful submission of the form upon correct completion.

3. **Scope**

The testing will cover:

- Input validation for all form fields.
- Error message accuracy and clarity.
- Functional correctness of the Submit button.
- User experience aspects such as form layout and ease of use.

4. **Test Environment**

Operating Systems: Windows 10, macOS Catalina

Browsers: Chrome, Firefox, Safari, Edge

Devices: Desktop, Tablet, Mobile

5. **Test Data**
- Valid and invalid Full Names
- Valid and invalid Email Addresses
- Passwords of various lengths and complexities
- Mismatched Password and Confirm Password entries
- Various Date of Birth values
- Different Gender selections
- Newsletter Subscription preferences

6. **Test Scenarios**

Positive Scenarios

1- User successfully registers with valid data.
2- User successfully registers with newsletter subscription.

Negative Scenarios

1- User receives an error for an invalid email address.

2- User receives an error for mismatched passwords.

7. Test Execution Schedule
- Test Planning: 1.5 day
- Test Case Development: 2 days
- Test Environment Setup: 1 day
- Test Execution: 3 to 3.5 days
- Bug Reporting and Retesting: 1.5 to 2 days
- Test Closure: .5 day
8. **Risks and Assumptions** <u>*Risks*</u>
    - Delays in form development could impact the testing schedule.
    - Changes in form requirements during testing.

<u>*Assumptions*</u>

- The development team will provide a stable version of the form for testing.
- Test data will be available and valid.

Test Cases

Test Case 1

Test Case ID: TC001

Test Case Description: Verify successful registration with valid data.

Preconditions: The registration form is accessible.

Test Steps:

      1- Enter a valid Full Name.
      2- Enter a valid Email Address.
      3- Enter a valid Password (at least 8 characters).
      4- Confirm the Password.
      5- Select a valid Date of Birth.
      6- Select a Gender.
      7- Select "No" for Newsletter Subscription.
      8- Click the Submit button.

Expected Results:

- The form submits successfully.
- The user is redirected to a confirmation page or receives a success message.

Post-conditions: The user is registered in the system.

Test Case 2

Test Case ID: TC002

Test Case Description: Verify error message for invalid email address.

Preconditions: The registration form is accessible.

Test Steps:

1- Enter a valid Full Name.
2- Enter an invalid Email Address.
3- Enter a valid Password (at least 8 characters).
4- Confirm the Password.
5- Select a valid Date of Birth.
6- Select a Gender.
7- Select "No" for Newsletter Subscription.
8- Click the Submit button.

Expected Results:

- The form does not submit.
- An appropriate error message is displayed for the Email Address field.

Post-conditions: The user is not registered in the system.

Test Case 3

Test Case ID: TC003

Test Case Description: Verify error message for mismatched passwords.

Preconditions: The registration form is accessible.

Test Steps:

1- Enter a valid Full Name.
2- Enter a valid Email Address.
3- Enter a valid Password (at least 8 characters).
4- Enter a different value in the Confirm Password field.
5- Select a valid Date of Birth.

6- Select a Gender.

7- Select "No" for Newsletter Subscription.

8- Click the Submit button.

Expected Results:

- The form does not submit.
- An appropriate error message is displayed for the Password fields.

Post-conditions: The user is not registered in the system.

Scenario Identification

Positive Scenarios

Scenario 1: Successful Registration

Steps:

- Enter valid details for all fields.
- Click Submit.

Expected Outcome: Form submits successfully, and the user receives a confirmation message.

Scenario 2: Registration with Newsletter Subscription

Steps:

- Enter valid details for all fields.
- Select "Yes" for Newsletter Subscription.
- Click Submit.

Expected Outcome: Form submits successfully, and the user is subscribed to the newsletter.

Negative Scenarios

Scenario 1: Invalid Email Address

Steps:

- Enter an invalid email address.
- Click Submit.

Expected Outcome: Error message indicating an invalid email address.

Scenario 2: Mismatched Passwords

Steps:

- Enter different values in the Password and Confirm Password fields.
- Click Submit.

Expected Outcome: Error message indicating that the passwords do not match.

Automated Test Scripts

Automated Test Script 1: Successful Registration

```
describe('Registration Form Tests', () => {

  It('should register a user successfully', () => {

    Cy.visit('https://example.com/register');

    Cy.get('input[name="fullName"]').type('John Doe');

    Cy.get('input[name="email"]').type('john.doe@example.com');

    Cy.get('input[name="password"]').type('Password123');

    Cy.get('input[name="confirmPassword"]').type('Password123');

    Cy.get('input[name="dob"]').type('1990-01-01');

    Cy.get('select[name="gender"]').select('Male');

    Cy.get('input[name="newsletter"]').check('No');

    Cy.get('button[type="submit"]').click();

    Cy.contains('Registration successful').should('be.visible');

  });

});
```

Automated Test Script 2: Registration with Newsletter Subscription

```
describe('Registration Form Tests', () => {

  It('should register a user with newsletter subscription', () => {

    Cy.visit('https://example.com/register');

    Cy.get('input[name="fullName"]').type('Jane Doe');
```

```
        Cy.get('input[name="email"]').type('jane.doe@example.com');

        Cy.get('input[name="password"]').type('Password123');

        Cy.get('input[name="confirmPassword"]').type('Password123');

        Cy.get('input[name="dob"]').type('1990-01-01');

        Cy.get('select[name="gender"]').select('Female');

        Cy.get('input[name="newsletter"]').check('Yes');

        Cy.get('button[type="submit"]').click();

        Cy.contains('Registration successful').should('be.visible');

    });

});
```

Automated Test Script 3: Invalid Email Address

```
describe('Registration Form Tests', () => {

    It('should show an error for an invalid email address', () => {

        Cy.visit('https://example.com/register');

        Cy.get('input[name="fullName"]').type('Sam Smith');

        Cy.get('input[name="email"]').type('sam.smith');

        Cy.get('input[name="password"]').type('Password123');

        Cy.get('input[name="confirmPassword"]').type('Password123');

        Cy.get('input[name="dob"]').type('1990-01-01');

        Cy.get('select[name="gender"]').select('Other');

        Cy.get('input[name="newsletter"]').check('No');

        Cy.get('button[type="submit"]').click();

        Cy.contains('Invalid email address').should('be.visible');

    });

});
```