**Submitted by:**

**Sikander Tariq**

**Test plan:**

Introduction:

This test plan outlines the approach, objectives, and scope for testing the online registration form. The form is designed to collect user information and submit it to the server. It includes fields for full name, email address, password, confirm password, date of birth, gender, and newsletter subscription.

Objectives:

1. Ensure that registration form works correctly.
2. Appropriate error messages are displayed for invalid inputs
3. Test the functionality of all form elements
4. Check if data is being submitted to the server.

Scope:

This test plan covers the functionality of the online registration form, including:

* User input validation for all fields (Full Name, Email Address, Password, Confirm Password, Date of Birth).
* Error message display for invalid entries.
* Successful data submission with valid entries.
* Functionality of the "Submit" button.
* Optional: Functionality of the "Newsletter Subscription" checkbox.

Test environment:

* Browsers: Chrome, Firefox, Safari
* Devices: Desktop, Mobile
* Testing Tools: Cypress for automated testing

Test Data:

* Valid data sets for all form fields.
* Invalid data sets for all form fields to trigger validation errors (e.g., empty fields, invalid email formats, short password, etc.).

Test Scenario:

* Positive scenario: form validation with correct inputs, successful form submission,
* Negative scenario: error message display upon incorrect data entry

Test execution:

1. Planning
2. Test cases development
3. Executing the test cases
4. Reporting

Risks and Assumptions:

* Risks: Network issues, browser compatibility problems
* Assumptions: Form field validation rules are correctly implemented, server is available

**Test Cases**

**Test Case 1: Successful Form Submission**

**Test Case ID**: TC001  
**Test Case Description**: check if form is submitted successfully with valid inputs. **Preconditions**: User is on the registration form page.  
**Test Steps**:

1. Enter "Sikander Tariq" in the Full Name field.
2. Enter "sikanderalitariq@gmail.com" in the Email Address field.
3. Enter "Password123" in the Password field.
4. Enter "Password123" in the Confirm Password field.
5. Select "01/01/1999" as the Date of Birth.
6. Select "Male" as the Gender.
7. Select "Yes" for Newsletter Subscription.
8. Click the Submit button.  
   **Expected Results**: Form is submitted successfully, and a success message is displayed.  
   **Post-conditions**: User is redirected to the confirmation page.

**Test Case 2: Password Mismatch Error**

**Test Case ID**: TC002  
**Test Case Description**: Verify that an error message is displayed when the passwords do not match.  
**Preconditions**: User is on the registration form page.  
**Test Steps**:

1. Enter "Sikander Tariq" in the Full Name field.
2. Enter "sikanderalitariq@gmail.com" in the Email Address field.
3. Enter "Password123" in the Password field.
4. Enter "Password456" in the Confirm Password field.
5. Click the Submit button.  
   **Expected Results**: An error message "Passwords do not match" is displayed.  
   **Post-conditions**: Form is not submitted.

**Test Case 3: Invalid Email Address Error**

**Test Case ID**: TC003  
**Test Case Description**: Verify that an error message is displayed for an invalid email address.  
**Preconditions**: User is on the registration form page.  
**Test Steps**:

1. Enter "Alice Doe" in the Full Name field.
2. Enter "alice.doe@invalid" in the Email Address field.
3. Enter "Password123" in the Password field.
4. Enter "Password123" in the Confirm Password field.
5. Click the Submit button.  
   **Expected Results**: An error message "Invalid email address" is displayed.  
   **Post-conditions**: Form is not submitted.

**Scenario Identification**

**Positive Scenarios**

1. **Successful Registration**
   * Steps: Fill in all fields with valid data and submit the form.
   * Expected Outcome: Form is submitted, and a success message is displayed.
2. **Form Validation**
   * Steps: Fill in all fields with valid data, including optional fields(subscribing to the newsletter), and submit the form.
   * Expected Outcome: Form is submitted, and a success message is displayed.

**Negative Scenarios**

1. **Password Mismatch**
   * Steps: Fill in the password and confirm password fields with different values and submit the form.
   * Expected Outcome: An error message "Passwords do not match" is displayed.
2. **Invalid Email Address**
   * Steps: Enter an invalid email address and submit the form.
   * Expected Outcome: An error message "Invalid email address" is displayed.

Test Cases:

1. Successful Registration with valid inputs

|  |
| --- |
| describe('Successful Registration', () => {      it('Registers a new user with valid data', () => {        cy.visit('https://localhost/register');          const fullName = 'Sikander Tariq';        const email = 'sikic@gmail.com';        const password = 'SecurePassword123';        const dob = '2002-04-13';          cy.get('#fullName').type(fullName);        cy.get('#email').type(email);        cy.get('#password').type(password);        cy.get('#confirmPassword').type(password);        cy.get('#dateOfBirth').type(dob);            cy.get('#gender-male').click();          cy.get('#submitButton').click();          cy.get('.success-message').should('be.visible');      });    }); |

1. Form Validation Feedback

|  |
| --- |
| describe('Form Validation Feedback', () => {      it('should display inline validation messages as the user types', () => {        cy.visit('https://localhost/registration');          cy.get('input[name="password"]').type('short');        cy.contains('Password must be at least 8 characters').should('be.visible');          cy.get('input[name="confirmPassword"]').type('different');        cy.contains('Passwords do not match').should('be.visible');      });    }); |

1. Empty Field Error:

|  |
| --- |
| describe('Empty Field Error', () => {      it('should display error messages for empty required fields', () => {        cy.visit('https://localhost/register');        cy.get('#submitButton').click();        cy.contains('Full Name is required').should('be.visible');        cy.contains('Email Address is required').should('be.visible');        cy.contains('Password is required').should('be.visible');        cy.contains('Confirm Password is required').should('be.visible');        cy.contains('Date of Birth is required').should('be.visible');      });    }); |