**Test Plan for Online Registration Form**

**Introduction**  
The document outlines the test plan for the online registration form of a website. The registration form is a crucial component, collecting essential user information to create new accounts. Effective testing of this form is vital to ensure data integrity, user experience, and overall application security. This test plan details the objectives, scope, environment, test data, scenarios, and the approach to be taken to thoroughly test the registration form.

**Objectives**

* Ensure the registration form functions as expected, allowing users to register successfully.
* Validate input fields for proper data entry and error handling.
* Confirm that appropriate error messages are displayed for invalid inputs.

**Scope**  
Testing will cover all functionalities of the registration form, including:

* Input validation for all fields (Full Name, Email Address, Password, Confirm Password, Date of Birth, Gender, Newsletter Subscription).
* Error message display for invalid inputs.
* Successful form submission and data storage.
* Compatibility across multiple browsers and devices.

**Test Environment**

* Operating Systems: Windows 10, macOS
* Browsers: Chrome, Firefox, Safari, Edge
* Test Server: Development and Staging environments
* Tools: Cypress for automated testing, JIRA for tracking, TestRail for test case management

**Test Data**

* **Full Name**: Valid (e.g., "Ahmad Ali", "Usman Afzal"), Invalid (e.g., empty, special characters)
* **Email Address**: Valid (e.g., "ahmadali @example.com", "usman.afzal@example.com"), Invalid (e.g., "user@", "example.com")
* **Password**: Valid (e.g., "StrongPass123", "AnotherPass456"), Invalid (e.g., less than 8 characters, no numbers)
* **Date of Birth**: Valid (e.g., "1990-01-01"), Invalid (e.g., future dates, non-date formats)
* **Gender**: Male, Female, Other
* **Newsletter Subscription**: Yes, No

**Test Scenarios**

* Input validation (e.g., email format, password length).
* Error message verification.
* Successful form submission.

**Test Execution Schedule**

* Test Planning: 1 day.
* Test Case Design: 2 days.
* Test Execution: 2 days.
* Test Reporting: 1 day.

**Risks and Assumptions**

* The test environment is set up and stable.
* Test data is correctly prepared and accessible.
* There may be changes in requirements during the testing phase.
* Assumption: Users will have a stable internet connection during registration.

**Test Cases**

Test Case 1: Valid Registration

|  |  |
| --- | --- |
| **Test Case ID:** | VR001 |
| **Test Case Description:** | Validate successful registration with all valid inputs. |
| Primary Actor: | User |
| 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 option. 7. Select 'Yes' or 'No' for newsletter subscription. 8. Click the Submit button. |
| **Expected Results**: | Registration is successful, and a confirmation message is displayed. |
| **Postconditions:** | * User successfully registers and receives a confirmation message. * User is redirected to the appropriate page (e.g., a welcome page or user dashboard). |

Test Case 2: Invalid Email Format

|  |  |
| --- | --- |
| **Test Case ID:** | IEF002 |
| **Test Case Description:** | Validate error message for an invalid email format |
| Primary Actor: | User |
| 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 option. 7. Select 'Yes' or 'No' for newsletter subscription. 8. Click the Submit button. |
| **Expected Results**: | An error message indicating the invalid email format is displayed. |
| Postconditions: | The user remains on the registration page with an error message indicating the invalid email format. |

Test Case 3: Password Mismatch

|  |  |
| --- | --- |
| **Test Case ID:** | PM003 |
| **Test Case Description:** | Validate error message for mismatched passwords. |
| Primary Actor: | User |
| 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 option. 7. Select 'Yes' or 'No' for newsletter subscription. 8. Click the Submit button. |
| **Expected Results**: | An error message indicating the passwords do not match is displayed. |
| Postconditions: | The user remains on the registration page. |

**Scenario Identification**

**Positive Scenarios**:

1. **Successful Registration**:
   * Steps: Enter all valid information and submit the form.
   * Expected Outcome: Registration is successful, and the user receives a confirmation message.
2. **Valid Input with Newsletter Subscription**:
   * Steps: Enter all valid information, select 'Yes' for newsletter subscription, and submit the form.
   * Expected Outcome: Registration is successful, and the user is subscribed to the newsletter.

**Negative Scenarios**:

1. **Invalid Email Format**:
   * Steps: Enter an invalid email address and submit the form.
   * Expected Outcome: An error message indicating the invalid email format is displayed.
2. **Password Mismatch**:
   * Steps: Enter a password and a different confirm password and submit the form.
   * Expected Outcome: An error message indicating the passwords do not match is displayed.

**Test Scripts**

**Automated Test Scripts using Cypress**

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

it('should register successfully with valid inputs', () => {

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

cy.get('#fullName').type('Clementine Frangipane');

cy.get('#email').type('clementine.frangipane@example.com');

cy.get('#password').type('SecurePass123');

cy.get('#confirmPassword').type('SecurePass123');

cy.get('#dateOfBirth').type('1985-05-15');

cy.get('#gender').select('Female');

cy.get('#newsletter').check('Yes');

cy.get('#submit').click();

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

});

it('should register successfully with valid inputs and newsletter subscription', () => {

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

cy.get('#fullName').type('Balthazar Zaffre');

cy.get('#email').type('balthazar.zaffre@example.com');

cy.get('#password').type('SecurePass456');

cy.get('#confirmPassword').type('SecurePass456');

cy.get('#dateOfBirth').type('1992-11-23');

cy.get('#gender').select('Male');

cy.get('#newsletter').check('Yes');

cy.get('#submit').click();

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

});

});