**Test Plan Outline**

**Introduction**

Below is an example of the test plan that will be helpful in evaluation of the online registration form of the given website. The goal is to make the form to be able to receive input data and then be able to submit it to the server.

**Objectives**

* Make sure all the input fields are indexed in order that only the right data is allowed.
* Make sure that correct validation and invalid input is in the right format and message.
* Inform the form submission success after the data entry process is complete.
* Check the form for usability characteristics.

**Scope**

* Check each of the input fields as per functional testing.
* A form of cross testing carried out to check the validity of error messages.
* Some of the testing that is done to ensure that the perfect user experience is achieved in form interactions includes the following.
* Performance testing for the submission of forms.
* They include compatibility testing of the browser and the device.

**Test Environment**

* Operating Systems: Windows, macOS, Linux
* Browsers: Chrome, Firefox, Safari, Edge
* Devices: Desktop, Mobile (Android, iOS)
* Test Tools: Selenium, ITAS

**Test Data**

* For each input field, there must be valid and invalid information.
* Email field and password field spiky values.
* Variations of the newsletter subscription.

**Test Scenarios**

1. Check that the form is displayed properly in different browsers and on different devices.

2. Verify each text field input (Full Name, Email, Password, Confirm Password, Date of Birth, Gender, and Newsletter Subscription).

3. Look for error messages or notification that invalid inputs have been entered.

4. Check the form submission with proper data.

5. Verify form reset functionality.

6. Confirm data submission to the server.

**Test Execution Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **Duration** | **Start Date** | **End Date** |
| Test Planning | 2 days | 07/19/2024 | 07/20/2024 |
| Test Case Design | 3 days | 07/21/2024 | 07/23/2024 |
| Test Environment Setup | 1 day | 07/24/2024 | 07/24/2024 |
| Test Execution | 5 days | 07/25/2024 | 07/29/2024 |
| Test Closure | 1 day | 07/30/2024 | 07/30/2024 |

**Risks and Assumptions**

* Risks: Potential delays in test environment setup, browser compatibility issues.
* Assumptions: All required resources and tools are available, test data is prepared in advance.

### Test Cases

**Test Case 1: Verify Form Loads Correctly**

* **Test Case ID:** TC001
* **Test Case Description:** Verify the registration form loads correctly on different browsers and devices.
* **Preconditions:** Access to the website on multiple browsers and devices.
* **Test Steps:**
  1. Open the website on Chrome, Firefox, Safari, and Edge.
  2. Open the website on Android and iOS devices.
  3. Observe the loading of the registration form.
* **Expected Results:** The registration form should load correctly on all tested browsers and devices.
* **Post-conditions:** The form remains visible and functional.

**Test Case 2: Validate Input for Full Name Field**

* **Test Case ID:** TC002
* **Test Case Description:** Validate that the Full Name field accepts valid input and shows error for invalid input.
* **Preconditions:** Registration form is loaded.
* **Test Steps:**
  1. Enter a valid full name (e.g., "John Doe").
  2. Enter an invalid full name (e.g., "12345").
  3. Observe the behavior of the form.
* **Expected Results:**
  1. Step 1: No error message displayed.
  2. Step 2: Appropriate error message displayed (e.g., "Please enter a valid name").
* **Post-conditions:** The form remains functional with valid input.

**Test Case 3: Verify Form Submission with Valid Inputs**

* **Test Case ID:** TC003
* **Test Case Description:** Verify the registration form submits successfully with valid inputs.
* **Preconditions:** Registration form is loaded with valid data in all fields.
* **Test Steps:**
  1. Enter a valid full name, email, password, confirm password, date of birth, gender, and select newsletter subscription.
  2. Click the "Submit" button.
  3. Observe the submission process.
* **Expected Results:** The form submits successfully, and a success message is displayed or the user is redirected appropriately.
* **Post-conditions:** Data is submitted to the server.

### Scenario Identification

**Positive Scenarios:**

1. **Successful Registration**
   * **Steps:** Enter valid data for all fields and click "Submit."
   * **Expected Outcome:** Form submits successfully, showing a confirmation message.
2. **Subscription to Newsletter**
   * **Steps:** Enter valid data for all fields, select "Yes" for newsletter subscription, and click "Submit."
   * **Expected Outcome:** Form submits successfully, and user is subscribed to the newsletter.

**Negative Scenarios:**

1. **Invalid Email Address**
   * **Steps:** Enter valid data for all fields except the email address, which should be invalid, and click "Submit."
   * **Expected Outcome:** An error message is displayed indicating an invalid email address.
2. **Password Mismatch**
   * **Steps:** Enter valid data for all fields except the password and confirm password fields, which should not match, and click "Submit."
   * **Expected Outcome:** An error message is displayed indicating that the passwords do not match.

### Test Writing using cypress

**Automated Test Scripts for Positive Scenarios:**

**Script 1: Successful Registration**

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

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

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

cy.get('#fullName').type('John Doe');

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

cy.get('#password').type('Password123');

cy.get('#confirmPassword').type('Password123');

cy.get('#dateOfBirth').type('1990-01-01');

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

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

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

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

});

});

**Script 2: Subscription to Newsletter**

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

it('should subscribe to newsletter with valid inputs', () => {

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

cy.get('#fullName').type('Jane Doe');

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

cy.get('#password').type('Password123');

cy.get('#confirmPassword').type('Password123');

cy.get('#dateOfBirth').type('1992-02-02');

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

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

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

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

});

});