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## **Test Plan Document**

## Introduction:

This document outlines the high-level testing approach for the online registration form. This form collects the information from the user including Full Name, Email Address, Password, Confirm Password, Date of Birth, Gender, and Newsletter Subscription fields.

# Objective/Solution Description:

The main objective of this document is to explain the testing approach to ensure that the registration form works correctly. It focuses that all the fields in the form are validated as per the requirements.

# Scope

## Initial Scope Description

This section describes the initial scope for testing the online registration form as noted in the requirement specification document. The registration form accepts data for multiple fields from the user and stores it in the database upon successful submission. The initial focus of this testing will be on validating the field requirements, verifying the error messages, and successful submission of the form.

The scope of the test plan includes:

* Functional testing

# Testing Environment

Functional testing will be done in the QA and UAT environments.

|  |  |
| --- | --- |
| Environment | URL |
| QA | https://qa-form-registration |
| UAT | https://uat-form-registration |

# 

# Test Data

The following deliverables are planned for testing the registration form.

* Testing approach document
* Automation Scripts in Cypress
* Valid and Invalid Email addresses
* Passwords with different character types and lengths.
* Various Date of Birth entries including valid past dates and invalid future dates.

# Test Scenarios

**Functional Test Cases:**

* Successful form submission with valid inputs
* Verify the field limit for each field
* Verify the functionality of the radio button and checkbox

**Fields validation:**

* Verify the error message for each field by testing it with invalid data.

**Database Verification:**

* Verify data is not stored in the database server when the form has invalid data.

# Test Execution Schedule / Roadmap

|  |  |  |
| --- | --- | --- |
| **Task** | **End Date** | **Assigned To** |
| Set up the workstation for creating automation scripts. | 7/15/2024 | Sabahat |
| Create automation test cases in Cypress.   * Automated test case of all the in-scope positive scenarios * Dry run of the test cases to verify test coverage | 7/25/2024 | Sabahat |
| Initial test run to verify the expected results | 7/30/2024 | Sabahat |

# Risk and assumptions:

* Error in the QA and UAT environment
* Unavailability of the required resources
* Unexpected number of bugs
* Changes in the requirements or scope

**b.**  Write test cases for at least three scenarios covering different aspects of the registration form. Each test case should include:

* Test Case ID
* Test Case Description
* Preconditions
* Test Steps
* Expected Results
* Post-conditions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | Test Case Description | Pre-Condition | Test Steps | Expected Results | Post Condition |
| TC-001 | Verify that no error is thrown, and registration form is submitted successfully with all valid inputs. | The user can access the Registration form. | 1- Enter a valid full name | 1- Full name is shown on the field and the placeholder text ‘Enter your full name’ is not visible. |  |
|  |  |  | 2- Enter the email address ‘sabahatshafiq22@gmail.com’  3- Enter the password as ‘pass@123’  4- Enter the same password ‘pass@123’ in the confirm password field  5- Enter Date of birth as 08/03/2001  6- click the radio button and select gender as ‘Female’  7- For the newsletter subscription, mark the checkbox as checked  8- Click the ‘Submit’ button | 2- ‘sabahatshafiq22@gmail.com’ is shown on the field  3- Password is shown on the field in encrypted form  4- Password is shown on the field in encrypted form  5- Date of birth is shown as ‘08/03/2001’  6- ‘Female’ radio button is selected  7- The newsletter subscription checkbox is checked  8- ‘Form is submitted successfully!’ message is shown on the screen | Data is added to the database server. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | Test Case Description | Pre-Condition | Test Steps | Expected Results | Post Condition |
| TC-002 | Verify that the error is thrown when an invalid date of birth is used in the date of Birth field. | The user can access the Registration form. | 1- Enter a valid full name | 1- Full name is shown on the field and the placeholder text ‘Enter your full name’ is not visible. |  |
|  |  |  | 2- Enter the email address ‘sabahatshafiq22@gmail.com’  3- Enter the password as ‘pass@123’  4- Enter the same password ‘pass@123’ in the confirm password field  5- Enter Date of birth as 08/03/2025  6- click the radio button and select gender as ‘Female’  7- For the newsletter subscription, mark the checkbox as checked  8- Click the ‘Submit’ button | 2- ‘sabahatshafiq22@gmail.com’ is shown on the field  3- Password is shown on the field in encrypted form  4- Password is shown on the field in encrypted form  5- Date of birth is shown as ‘08/03/2025’  6- ‘Female’ radio button is selected  7- The checkbox is marked as checked for newsletter subscription  8- Error is shown below the Date of Filed as ‘Please write the valid date of birth’ | Data is not added to the database server. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | Test Case Description | Pre-Condition | Test Steps | Expected Results | Post Condition |
| TC-003 | Verify that the error is thrown when the data entered in the ‘Password’ and ‘Confirm Password’ fields is different. | The user can access the Registration form. | 1- Enter a valid full name | 1- Full name is shown on the field and the placeholder text ‘Enter your full name’ is not visible. |  |
|  |  |  | 2- Enter the email address ‘sabahatshafiq22@gmail.com’  3- Enter the password as ‘pass@123’  4- Enter the same password ‘pass@1234’ in the confirm password field  5- Enter Date of birth as 08/03/2001  6- click the radio button and select gender as ‘Female’  7- For the newsletter subscription, mark the checkbox as checked  8- Click the ‘Submit’ button | 2- ‘sabahatshafiq22@gmail.com’ is shown on the field  3- Password is shown on the field in encrypted form  4- Password is shown on the field in encrypted form  5- Date of birth is shown as ‘08/03/2001’  6- ‘Female’ radio button is selected  7- The newsletter subscription checkbox is checked  8- Error is thrown as ‘Passwords do not match’ below the ‘Confirm password’ field | Data is not added to the database server. |

## **Scenario Identification:**

a. Identify at least two positive and two negative scenarios for the registration form. For each scenario, briefly describe the steps a user would take and the expected outcome.

**Positive Scenarios:**

1. **Successful form submission with newsletter subscription**

Steps:

|  |
| --- |
| 1- Enter a valid full name |
| 2- Enter the email address ‘sabahatshafiq22@gmail.com’  3- Enter the password as ‘pass@123’  4- Enter the same password ‘pass@123’ in the confirm password field  5- Enter Date of birth as 08/03/2001  6- click the radio button and select gender as ‘Female’  7- check the checkbox for newsletter subscription.  8- Click the ‘Submit’ button |

1. **Successful form submission without a newsletter subscription**

Steps:

|  |
| --- |
| 1- Enter a valid full name |
| 2- Enter the email address ‘sabahatshafiq22@gmail.com’  3- Enter the password as ‘pass@123’  4- Enter the same password ‘pass@123’ in the confirm password field  5- Enter Date of birth as 08/03/2001  6- click the radio button and select gender as ‘Female’  7- For the newsletter subscription checkbox, make sure it’s unchecked  8- Click the ‘Submit’ button |

1. **Successful form submission when password length is equal to 8**

Steps:

|  |
| --- |
| 1- Enter a valid full name |
| 2- Enter the email address ‘sabahatshafiq22@gmail.com’  3- Enter the password as ‘pass@123’  4- Enter the same password ‘pass@123’ in the confirm password field  5- Enter Date of birth as 08/03/2001  6- click the radio button and select gender as ‘Female’  7- Check the newsletter subscription checkbox  8- Click the ‘Submit’ button |

1. **Successful form submission when password length is greater than 8**

Steps:

|  |
| --- |
| 1- Enter a valid full name |
| 2- Enter the email address ‘sabahatshafiq22@gmail.com’  3- Enter the password as ‘pass@12345678’  4- Enter the same password ‘pass@12345678’ in the confirm password field  5- Enter Date of birth as 08/03/2001  6- click the radio button and select gender as ‘Female’  7- Check the newsletter subscription checkbox    8- Click the ‘Submit’ button |

**Negative Scenarios:**

1. **Invalid email address**

Step:

|  |
| --- |
| 1- Enter a valid full name |
| 2- Enter the email address ‘invalidemail@123’  3- Enter the password as ‘pass@123’  4- Enter the same password ‘pass@123’ in the confirm password field  5- Enter Date of birth as 08/03/2001  6- click the radio button and select gender as ‘Female’  7- check the checkbox for newsletter subscription.  8- Click the ‘Submit’ button |

1. **Invalid date of birth**

Steps:

|  |
| --- |
| 1- Enter a valid full name |
| 2- Enter the email address ‘sabahatshafiq22@gmail.com’  3- Enter the password as ‘pass@123’  4- Enter the same password ‘pass@123’ in the confirm password field  5- Enter Date of birth as 08/03/2050  6- click the radio button and select gender as ‘Female’  7- check the checkbox for newsletter subscription.  8- Click the ‘Submit’ button |

1. **Password length less than 8 characters**

Steps:

|  |
| --- |
| 1- Enter a valid full name |
| 2- Enter the email address sabahatshafiq22@gmail.com  3- Enter the password as ‘pass@12’  4- Enter the same password ‘pass@12’ in the confirm password field  5- Enter Date of birth as 08/03/2001  6- click the radio button and select gender as ‘Female’  7- check the checkbox for newsletter subscription.  8- Click the ‘Submit’ button |

## **Test Writing:**

 a. Write automated test scripts (using a language and testing framework of your choice, e.g. Cypress for JavaScript) for the positive scenarios identified in the previous step. Ensure that the scripts cover the key functionalities of the registration form.

1. **Successful form submission with newsletter subscription**

describe(‘Form Submission’, () =

it( ‘Successful Form submission’ ,() -> {

cy.get(‘.fullname’).type(‘Sabahat Shafiq’);

cy.get(‘.email’).type(‘Sabahatshafiq22@gmail.com’);

cy.get(‘.password’).type(‘pass@123’);

cy.get(‘.confirmpassword’).type(‘pass@123’);

cy.get(‘.dateofbirth’).type(‘08/03/2001’);

cy.get(‘.gender’).select(‘Female’);

cy.get(‘.subscription’).check();

cy.get(‘.submit’).click();

cy.contains(‘Form is submitted successfully!’).should(‘be.visible’);

} )

1. **Successful form submission with password length greater than 8**

describe(‘Form Submission’, () =

it( ‘Successful Form submission’ ,() -> {

cy.get(‘.fullname’).type(‘Sabahat Shafiq’);

cy.get(‘.email’).type(‘Sabahatshafiq22@gmail.com’);

cy.get(‘.password’).type(‘pass@12345’);

cy.get(‘.confirmpassword’).type(‘pass@12345’);

cy.get(‘.dateofbirth’).type(‘08/03/2001’);

cy.get(‘.gender’).select(‘Female’);

cy.get(‘.subscription’).uncheck();

cy.get(‘.submit’).click();

cy.contains(‘Form is submitted successfully!’).should(‘be.visible’);

} )

**My assumptions:**

Newsletter subscription field is a ‘checkbox’.