

FEBAY DANIEL

Task # 01: Documentation

Introduction:

The test plan outlines the strategy, objectives, scope, and approach to testing the online registration form for a website. The form collects user details and must validate inputs, display appropriate error messages, and successfully submit data upon correct completion.

Objectives:

Following are the objectives:

- Ensure the registration form functions as expected.
- Verify input validation and error message display.
- Confirm successful data submission to the server.

Scope:

- Functional testing of the registration form.
- Validation of input fields and error messages.
- Usability testing to ensure user-friendly interaction.

Test Environment:

Following are the test environments:

- Browser: Latest versions of Chrome, Firefox, Safari, Edge
- Operating System: Windows, macOS, Linux
- Tools: Cypress (for automated testing), Postman (for API testing)

Test Data:

- Various combinations of valid and invalid inputs for each field.
- Test cases for edge conditions (e.g., minimum and maximum input lengths).
- Test cases with already registered user inputs.
- Test cases with invalid input formats for email, number and password etc.

Test Scenarios:

Following are the different test scenarios:

- Positive scenario: Valid input data, successful form submission.
- Negative scenario: Invalid input data, proper error message display.
- Negative scenario: Empty input data, proper error message display.

Test Execution Schedule:

- 1 hour: Test planning and test case design.
- Half hour: Test case execution and bug reporting.
- 1 hour: Automated test script development and execution.
- Half hour: Test report generation and review.

Risks and Assumptions:

- Risks: Browser compatibility issues, server downtime.
- Assumptions: Test environment will be stable, test data will be available.

TEST CASES

Valid Registration	
Test Case ID	TC001
Description	Verify successful registration with valid inputs.
Preconditions	Registration page is accessible.
Test Steps	<ul style="list-style-type: none">▪ Enter a valid full name.▪ Enter a valid email address.▪ Enter a password (at least 8 characters).▪ Confirm the password.▪ Select a date of birth.▪ Choose a gender.▪ Opt in for the newsletter subscription.▪ Click the submit button.
Expected Results	Registration is successful, and a confirmation message is displayed.
Post-conditions	User data is stored in the database.

Invalid Email Address	
Test Case ID	TC002
Description	Verify error message for an invalid email address.
Preconditions	Registration page is accessible.
Test Steps	<ul style="list-style-type: none"> ▪ Enter a valid full name. ▪ Enter an invalid email address. ▪ Enter a password (at least 8 characters). ▪ Confirm the password. ▪ Select a date of birth. ▪ Choose a gender. ▪ Opt in for the newsletter subscription. ▪ Click the submit button.
Expected Results	An error message is displayed indicating an invalid email address.
Post-conditions	Registration is not successful.

Password Mismatch	
Test Case ID	TC003
Description	Verify error message for mismatched passwords.
Preconditions	Registration page is accessible.
Test Steps	<ul style="list-style-type: none"> ▪ Enter a valid full name. ▪ Enter a valid email address. ▪ Enter a password (at least 8 characters). ▪ Enter a different password in the confirm password field. ▪ Select a date of birth. ▪ Choose a gender. ▪ Opt in for the newsletter subscription. ▪ Click the submit button.
Expected Results	An error message is displayed indicating a password mismatch.
Post-conditions	Registration is not successful.

Task # 02: Scenario Identification

Positive Scenarios	Steps	Outcomes
Valid Registration	<ul style="list-style-type: none">▪ Enter all valid inputs.▪ Click the submit button.	Successful registration and confirmation message.
Newsletter Subscription	<ul style="list-style-type: none">▪ Enter all valid inputs.▪ Opt-in for the newsletter.▪ Click the submit button.	Successful registration with a confirmation message, including newsletter subscription confirmation.

Negative Scenarios	Steps	Outcomes
Invalid Email Address	<ul style="list-style-type: none">▪ Enter an invalid email address.▪ Click the submit button.	Error message indicating an invalid email address.
Password Mismatch	<ul style="list-style-type: none">▪ Enter a password.▪ Enter a different password in the confirm password field.▪ Click the submit button.	Error message indicating a password mismatch.

Task # 03: Test Writing

Automated Test Scripts (using Cypress for JavaScript):

```
describe('Registration Form Tests', () => {
  beforeEach(() => {
    cy.visit('http://example.com/register');
  });

  it('should register successfully with valid inputs', () => {
    cy.get('#fullName').type('John Doe');
    cy.get('#email').type('john.doe@example.com');
    cy.get('#password').type('Password123');
    cy.get('#confirmPassword').type('Password123');
    cy.get('#dob').type('1990-01-01');
    cy.get('#gender').select('Male');
    cy.get('#newsletter').check();
    cy.get('#submit').click();
    cy.contains('Registration successful').should('be.visible');
  });

  it('should show an error for invalid email', () => {
    cy.get('#fullName').type('John Doe');
    cy.get('#email').type('john.doe@');
    cy.get('#password').type('Password123');
    cy.get('#confirmPassword').type('Password123');
    cy.get('#dob').type('1990-01-01');
    cy.get('#gender').select('Male');
    cy.get('#newsletter').check();
    cy.get('#submit').click();
    cy.contains('Invalid email address').should('be.visible');
  });

  it('should show an error for password mismatch', () => {
    cy.get('#fullName').type('John Doe');
    cy.get('#email').type('john.doe@example.com');
    cy.get('#password').type('Password123');
    cy.get('#confirmPassword').type('Password456');
    cy.get('#dob').type('1990-01-01');
    cy.get('#gender').select('Male');
    cy.get('#newsletter').check();
    cy.get('#submit').click();
    cy.contains('Passwords do not match').should('be.visible');
  });
});
```

