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Documentation:

Part A: Test Plan Outline for Registration Form

1a: introduction

This plan details the approach for testing the registration form to ensure it meets requirements.

2a: Objectives

- Validate data capture accuracy.

- Ensure mandatory fields work.

- Verify submission and error handling.

3a: Scope

- Functional, usability, performance, and security testing.

4a: Test Environment

- OS: Windows 10, macOS, Linux

- Browsers: Chrome, Firefox, Safari, Edge

- Devices: Desktop, Mobile (iOS, Android)

5a: Test Data

- Valid/invalid emails, password combinations, personal info, special character

6a: Test Scenarios

1. Form Loading: Verify correct loading across devices/browsers.

2. Field Validations: Check mandatory fields, length restrictions.

3. Data Submission: Test with valid and invalid data.

4. Error Messages: Verify correct error displays.

5. Usability: Ensure ease of use.

6. Performance: Measure load/submission times.

7. Security: Test for vulnerabilities.

7a: Test Execution Schedule

- Week 1: Setup environment, prepare data.

- Week 2: Functional, usability tests.

- Week 3: Performance, security tests.

- Week 4: Review, retest issues.

8a: Risks and Assumptions

- Risks: Setup delays, incomplete test data.

-Assumptions\*\*: Resources available, test environments simulate real conditions.  
  
  
**B**: **Test Cases for Registration Form:**

**1B: Test Case 1:**

Test Case ID: RF-001

Test Case Description: Verify registration with valid data

Preconditions: Registration form is accessible

**Test Steps**:

1. Open the registration form

2. Enter valid email, password, and required personal details

3. Click the "Submit" button

**Expected Results**: Registration is successful, user is redirected to the welcome page

**Post-conditions**: User account is created in the system

**2B: Test Case 2**

**Test Case ID**: RF-002

**Test Case Description**: Verify error message for missing mandatory fields

**Preconditions**: Registration form is accessible

**Test Steps**:

1. Open the registration form

2. Leave the email field empty

3. Fill in other required fields

4. Click the "Submit" button

**Expected Results**: Error message is displayed for the email field, form is not submitted

**Post-conditions:** No account is created, user remains on the registration page

**3B: Test Case 3:**

**Test Case ID**: RF-003

**Test Case Description:** Verify password strength validation

**Preconditions:** Registration form is accessible

**Test Steps:**

1. Open the registration form

2. Enter a valid email

3. Enter a weak password (e.g., "12345")

4. Fill in other required fields

5. Click the "Submit" button

**Expected Results:** Error message is displayed for the weak password, form is not submitted

**Post-conditions:** No account is created, user remains on the registration page  
  
  
  
Scenario Identification:  
  
**1C: Positive Scenarios**

1. Scenario 1: Successful Registration with Valid Data\*\*

- Steps: User fills in all required fields with valid data (e.g., email, password, personal info) and submits the form.

- \*\*Expected Outcome\*\*: Registration is successful, and the user is redirected to the welcome page.

2. Scenario 2: Registration with Optional Fields Filled\*\*

- **Steps:** User fills in all required fields and some optional fields, then submits the form.

- **Expected Outcome**: Registration is successful, and the user is redirected to the welcome page with optional data saved.

**Negative Scenarios**

1. **Scenario 1**: Missing Mandatory Field\*\*

- **Steps**: User leaves the email field empty, fills in other fields, and submits the form.

- **Expected Outcome**: Error message is displayed indicating the email field is required, and the form is not submitted.

2. **Scenario 2: Weak Password**

- **Steps**: User enters a weak password (e.g., "12345"), fills in other fields, and submits the form.

- **Expected Outcome**: Error message is displayed indicating the password does not meet strength requirements, and the form is not submitted.