Test Case ID: TC_001

Test Scenario:
Verify that the registration form contains all the required fields.

Test Case Description:
Ensure that the Registration form contains the First name, Last name, Email, Password, Submit fields.

Preconditions**:**
The registration form should be loaded through any web browser and view properly.

Test Steps:
1. Navigate to the registration form page.
2. Manually check the registration form and ensure each required field is visible and correctly labeled on the form.

Test Data: N/A

Expected Results:
The form should display all the required fields as expected.

Test Case ID: TC_002

Test Scenario:
Verify that all fields have a valid placeholder.

Test Case Description:
Ensure that all fields such as First name, Last name, Email, Password display appropriate placeholder text when empty.
E.g- "Enter Password"

Preconditions:
The registration form is displayed and all fields are empty.

Test Steps
1.Manually check each field in the registration form.
2.Verify that placeholder text is viewed in each field when it is empty.

Test Data: N/A

Expected Results:
Each field should display relevant placeholder text.

Test Case ID: TC_003

Test Scenario:
Verify that the character limits for all text box fields in the registration form are enforced according to the business requirement.

Test Case Description:
Ensure that each text box field in the registration form follows its specified character limit.

Preconditions:
The registration form should display properly.

Test Steps:
1. First name & Last name Fields:
 Enter a first name and last name with characters exceeding the maximum allowed limit (e.g. 51 characters if the limit is 50)and submit the form.

2.Email Field:
Enter an email address with characters exceeding the maximum allowed limit (e.g. 31 characters if the limit is 30)and submit the form.

4. Password Field:
Enter a password with characters exceeding the maximum allowed limit (e.g. 31 characters if the limit is 30)and submit the form.

Test Data:
First name:
`abcdefghijklmnopqrstuvwxyzabcdefghijklmnopqrstuvwx`

Last name:
`abcdefghijklmnopqrstuvwxyzabcdefghijklmnopqrstuvwx`

Email:
`abcdefghijklmnopqrstu@gmail.com`

Password:
 `a` repeated 31 times.

Expected Results:
For each field, the system should limit input to the specified maximum number of characters and If input exceeds the character limit, the form should prevent further input or display an appropriate error message when attempting to submit.

Test Case ID: TC_004

Test Scenario:
Verify that all mandatory fields are marked as required(*).

Test Case Description:
Ensure that all required fields are marked as required(*) to indicate they are mandatory.

Preconditions:
The registration form is displayed properly.

Test Steps:
1.Check each field on the registration form.
2.Verify that required fields marked as required (*).

Test Data:N/A

Expected Results:
All required fields should be marked with as required(*).

Test Case ID: TC_005

Test Scenario:
Verify the case sensitivity of the First name and Last name Field.

Test Case Description:
Ensure that the First name and Last name fields are not case-sensitive (e.g., "testuser" and "TESTUSER" should be treated the same).

Preconditions:
The registration form is filled with valid data.

Test Steps:
1.Register with a first name and last name in lowercase (e.g.,First name - "testuser",Last name -"testuserlastname").
2.Try registering again with the same usernames but in uppercase (e.g., "TESTUSER", "TESTUSERLASTNAME",)

Test Data:
First name: `testuser` (first registration)
Fisrtsname: `TESTUSER` (second registration)
Last name: `testuserlastname` (first registration)
Lastsname: `TESTUSERLASTNAME` (second registration)

Expected Results:
The system should prevent the second registration, treating both usernames as identical.

Test Case ID: TC_006

Test Scenario:
Verify validation message displayed for existing usernames.

Test Case Description:
Ensure that the system generates a validation message when trying to register with an existing usernames.

Preconditions:
A username is already registered in the system.

Test Steps:
1.Attempt to register with an existing username.

Test Data:
 First name: `existinguserfirstname`
 Last name: `existinguserlastname`

Expected Results:
The system should display a validation message indicating that the username is already taken.

Test Case ID: TC_007

Test Scenario:
Verify First name and Last name validation as per business requirements.

Test Case Description:
Ensure that the First name and Last name fields do not accept numeric or special characters if restricted by business requirements.

Preconditions:
The registration form is displayed.

Test Steps:
1.Attempt to register with a First name or Last name containing numeric or special characters.

Test Data:
First name: `userfirstname123`,`user@firstname`
Last name: `userlastname123`,`user@lastname`

Expected Results:
The system should display validation messages indicating that the first name and last name cannot contain numbers or special characters.

Test Case ID: TC_008

Test Scenario:

Verify that the Email field accepts a valid email format.

Test Case Description:

Ensure that the Email field correctly accepts and processes a valid email address format.

Preconditions:

The registration form is displayed.

Test Steps:

1.Enter a valid first name and last name.

2.Enter a valid email address.(e.g., "test@domain.com","user@sub.domain.com","first_lastname@domain.com").

3.Enter a valid password.

4.Click the Submit button.

Test Data:
Email: `test@domain.com`,
`user@sub.domain.com`,
`first_lastname@domain.com`

Expected Result:

The form is submitted successfully, and the email is accepted as valid.

Test Case ID: TC_009

Test Scenario**:**

Verify that the email field does not accept invalid email.

Test Case Description**:**

Ensure that the Email field does not accept invalid email formats.

Preconditions:

The registration form is displayed.

Test Steps:

1.Enter a valid first name and last name.

2.Enter an invalid email address without the "@" symbol ,an email without a domain name,an email with spaces,an email with multiple "@" symbols,invalid email address with an incomplete domain extension and an email with an excessive length.

3.Enter a valid password.

4.Click the Submit button.

Test Data:,`userdomain.com`,
`user@`,
`user@ domain.com`,`user@@domain.com`
`user@domain.c`,
`a_very_long_email_address@example.com`

Expected Result:

The form displays a validation error indicating that the email format is invalid, and the form is not submitted.

Test Case ID: TC_010

Test Scenario:
Verify that a valid password meets the required criteria and is accepted by the system.

Test Case Description:

Ensure that a password meeting all specified requirements (e.g., length, complexity) is accepted and allows form submission.

Preconditions:
The registration form is displayed and accessible.

Test Steps:
1. Navigate to the password field in the registration form.
2. Enter a password that meets all criteria (e.g., at least 8 characters, includes uppercase letters, lowercase letters, numbers, and special characters).
3. Fill out other required fields with valid data.
4. Click the Submit button.

Test Data:
Password:`ValidPass123!`

Expected Results:
The password is accepted, and the form is successfully submitted without validation errors.

Test Case ID: TC_011

Test Scenario:
Verify that the registration form rejects a password that does not fulfil relevant criterias.

Test Case Description:
Ensure that a password meets all the necessary criterias and if not display a validation error.

Preconditions:
The registration form is displayed properly and accessible.

Test Steps:
1. Navigate to the password field in the registration form.
2. Enter a invalid password. (e.g., use 5 characters if the minimum is 8,use only lowercase characters,does not include special characters,use only uppercase letters, does not include numbers).
3. Fill the other required fields with valid data.
4. Click the Submit button.

Test Data:
Password: `Abc1!`,
`abcdefgh´,
`Abcdgh 1´,
`ABCDEFGH´,

`abcdefG$´

Expected Results:
The system should display a validation message indicating that the password is invalid and the form is not submitted.

Test Case ID: TC_012

Test Scenario:
Verify that the form submits data to the server after filling all mandatory fields.

Test Case Description:
Ensure that the form successfully submits data to the server when all mandatory fields are filled.

Preconditions:
The registration form is filled with valid data.

Test Steps:
  1. Fill out all mandatory fields in the registration form.
  2. Click on the Submit button.

Test Data:
First name: testuser
Last name: testuserlastname
Email:testuser1@gmail.com
Password:Abcd@1234

Expected Results:
The form should submit the data, and the user should receive a confirmation or success message.

Test Case ID: TC_013

Test Scenario:
Verify validation message is displayed when a mandatory field is not filled or contains blank spaces.

Test Case Description:
Ensure that the system generates a validation message when the user clicks the Submit button without filling all mandatory fields or with blank spaces.

Preconditions:
The registration form is displayed, and some mandatory fields are left blank.

Test Steps:
1.Leave one or more mandatory fields empty and with blank spaces. (e.g., email).
2.Click on the Submit button.

Test Data:
 Leave mandatory fields empty.

Expected Results:
The system should display a validation message indicating that the mandatory fields cannot be empty.

Test Case ID: TC_014

Test Scenario:
Verify form submission by leaving optional fields blank.

Test Case Description:
Ensure that the form submits successfully even if optional fields are left blank.

Preconditions:
The registration form should filled with valid data except for optional fields.

Test Steps:
1.Fill out all mandatory fields, leaving optional fields empty.
2.Click on the Submit button.

Test Data:
Fill mandatory fields with valid data.
Leave optional fields blank.

Expected Results:
The registration form should submit successfully without any validation errors.