Functional Test Cases

Test Case 1: Successful Login with Valid Credentials

Test Case ID: TC001

Title: Verify successful login with valid credentials

Preconditions: The user must have a registered email and password

Test Steps:

1. Open the login page

2. Enter a registered email address

3. Enter the correct password

4. Click the "Login" button

Expected Result: The user should be successfully logged in and redirected to the homepage.

Test Case 2: Invalid Password Error Message

Test Case ID: TC002

Title: Verify error message when logging in with an incorrect password

Preconditions: The user must be registered

Test Steps:

1. Open the login page

2. Enter a registered email address

3. Enter an incorrect password

4. Click the "Login" button

Expected Result: The system should display an error message: "Invalid credentials. Please try again."

Test Case 3: Login Attempt with Unregistered Email

Test Case ID: TC003

Title: Verify that login fails with an unregistered email

Preconditions: The user must not have an existing account

Test Steps:

1. Open the login page

2. Enter an unregistered email address

3. Enter any password

4. Click the "Login" button

Expected Result: The system should display an error message: "This email is not registered."

Non-Functional Test Cases

Test Case 4: Page Load Time Performance

Test Case ID: TC004

Title: Verify that the login page loads within 3 seconds

Preconditions: A stable internet connection is required

Test Steps:

1. Open a web browser

2. Navigate to the login page

3. Measure the time taken for the page to load

Expected Result: The page should load within 3 seconds for a smooth user experience.

Test Case 5: Security - Brute Force Attack Prevention

Test Case ID: TC005

Title: Verify that the system prevents brute-force attacks

Preconditions: The login system should have security measures in place

Test Steps:

1. Attempt to log in multiple times with incorrect passwords

2. Observe the system’s response after 5 failed attempts

Expected Result: The system should temporarily lock the account or require CAPTCHA verification to prevent automated attacks.