

XAlts Assignment – Part 1

Test Cases

1. Sign-Up Process

Test Case 1.1: Successful Sign-Up

- **Description:** User successfully creates an account with a valid email and password.
- **Steps:**
 - Navigate to the sign-up page.
 - Enter a valid email ID and password.
 - Click on "Sign Up" button.
- **Expected Result:**
 - User is redirected to the login page or the app home page.
 - A confirmation email is sent to the provided email address.

Test Case 1.2: Invalid Email Format

- **Description:** User enters an invalid email format.
- **Steps:**
 - Navigate to the sign-up page.
 - Enter an invalid email format (e.g., missing "@" or ".com").
 - Click "Sign Up."
- **Expected Result:**
 - A validation message appears indicating the email format is incorrect.

Test Case 1.3: Password Strength Validation

- **Description:** User enters a weak password (e.g., less than 6 characters).
- **Steps:**
 - Navigate to the sign-up page.
 - Enter a valid email and a weak password.
 - Click "Sign Up."

- **Expected Result:**
 - A validation message appears indicating the password must be at least 6 characters long.

Test Case 1.4: Duplicate Email

- **Description:** User attempts to sign up with an already registered email.
- **Steps:**
 - Navigate to the sign-up page.
 - Enter an already registered email and a valid password.
 - Click "Sign Up."
- **Expected Result:**
 - A message appears indicating the email is already registered.

2. Sign-In Process

Test Case 2.1: Successful Sign-In

- **Description:** User successfully logs into the application with a registered email and password.
- **Steps:**
 - Navigate to the sign-in page.
 - Enter valid credentials.
 - Click "Sign In."
- **Expected Result:**
 - User is successfully signed in and redirected to the dashboard/home page.

Test Case 2.2: Invalid Password

- **Description:** User enters an incorrect password.
- **Steps:**
 - Navigate to the sign-in page.
 - Enter a valid email but an incorrect password.
 - Click "Sign In."
- **Expected Result:**
 - An error message appears indicating incorrect credentials.

Test Case 2.3: Unregistered Email

- **Description:** User enters an email that has not been registered.
- **Steps:**
 - Navigate to the sign-in page.
 - Enter an unregistered email and any password.
 - Click "Sign In."
- **Expected Result:**
 - An error message appears indicating the email is not registered.

3. Onboarding Nodes to Existing Blockchain

Test Case 3.1: Add a Single Node

- **Description:** User successfully adds a node to the onboarding request.
- **Steps:**
 - Navigate to the blockchain onboarding page.
 - Enter a valid node ID and public IP address.
 - Click "Add Node."
- **Expected Result:**
 - The node is added to the list of nodes.

Test Case 3.2: Add Multiple Nodes

- **Description:** User adds multiple nodes to the list.
- **Steps:**
 - Enter the details of multiple nodes.
 - Click "Add Node" for each node.
- **Expected Result:**
 - Each node is added to the list and displayed correctly.

Test Case 3.3: Node ID and Public IP Validation

- **Description:** User enters an invalid node ID or IP.
- **Steps:**
 - Enter an invalid node ID (e.g., alphanumeric characters).

- Enter an invalid IP address (e.g., 999.999.999.999).
 - Click "Add Node."
- **Expected Result:**
 - A validation message appears indicating the node ID or IP is invalid.

Test Case 3.4: Node List Maximum Limit

- **Description:** User attempts to add more nodes than allowed by the system.
- **Steps:**
 - Add nodes up to the system's maximum limit (e.g., 1000 nodes).
 - Try adding one more node.
- **Expected Result:**
 - A message appears indicating that the node limit has been reached.

4. Add Wallets to Blockchain

Test Case 4.1: Add a Single Wallet

- **Description:** User successfully adds a wallet with a specific permission type.
- **Steps:**
 - Enter a valid wallet address.
 - Select a permission type (e.g., "Read" or "Write").
 - Click "Add Wallet."
- **Expected Result:**
 - The wallet is added to the list of wallets.

Test Case 4.2: Add Multiple Wallets

- **Description:** User adds multiple wallets.
- **Steps:**
 - Enter wallet addresses and select permission types for multiple wallets.
 - Click "Add Wallet" for each wallet.
- **Expected Result:**
 - All wallets are added to the list and displayed correctly.

Test Case 4.3: Invalid Wallet Address

- **Description:** User enters an invalid wallet address.
- **Steps:**
 - Enter an invalid wallet address (e.g., incorrect length or format).
 - Select a permission type and click "Add Wallet."
- **Expected Result:**
 - A validation message appears indicating the wallet address is invalid.

5. Create New Private Blockchain

Test Case 5.1: Successful Blockchain Creation

- **Description:** User successfully creates a new private blockchain.
- **Steps:**
 - Enter a valid network name.
 - Enter a valid wallet address.
 - Add nodes and wallets as described in previous steps.
 - Click "Submit."
- **Expected Result:**
 - Blockchain is created successfully, and a confirmation is displayed.

Test Case 5.2: Missing Network Name

- **Description:** User does not enter a network name.
- **Steps:**
 - Leave the network name field empty.
 - Click "Submit."
- **Expected Result:**
 - A validation message appears indicating that the network name is required.

Test Case 5.3: Missing Wallet Address

- **Description:** User does not enter a wallet address.
- **Steps:**
 - Leave the wallet address field empty.
 - Click "Submit."
- **Expected Result:**
 - A validation message appears indicating that the wallet address is required.

6. Sign Out Process

Test Case 6.1: Successful Sign-Out

- **Description:** User successfully logs out from the application.
- **Steps:**
 - Click on the "Sign Out" button.
- **Expected Result:**
 - User is logged out and redirected to the login page.