# Xalts Test Plan 06-11-2024

## Project Name: Xalts

Xalts is a financial technology firm delivering enterprise-grade, real-time connectivity between financial services and businesses. Using APIs, blockchains, and orchestration layers, it digitalizes complex workflows and financial processes.

## Test Scope

UI Testing (Manual):  
Focuses on verifying user interaction with the system interface. It includes testing visual components such as icons, images, and layout across various browsers for consistency.

Functional Testing (Manual & Automated):  
Objective: To ensure each application function operates as specified.  
Scope includes:   
- User Authentication: Sign Up, Sign In, Sign Out  
- Blockchain Operations: Adding nodes, adding wallets, creating new blockchain

Security Testing (Manual):  
Objective: To validate security features, including encryption, access control, and data protection mechanisms.  
Scope includes:  
- Password Validation  
- SQL Injection Prevention  
- Secure Data Transmission

Performance Testing:  
Objective: To assess application performance under varying loads, specifically during node onboarding.

Regression Testing (Automated):  
Objective: To confirm that existing functionalities remain unaffected after updates.

## Test Objectives

The testing phase will be considered complete when:  
- All CRUD operations on user profiles are functional.  
- User authentication and access levels function correctly.  
- Nodes can be successfully onboarded to existing blockchains.  
- Creation of new private blockchains is seamless.

## Test Environment

Hardware: Dedicated server space with a test environment integrated into the CI/CD pipeline to ensure the latest version is deployed.

Software: Selenium for automation, integrated into the CI/CD pipeline via Jenkins.

Test Data: Dummy data will be generated as required.

## Test Strategy and Approach

The Xalts project aims to create secure, regulatory-compliant financial services ecosystems using blockchain and DLT technology. An agile and iterative approach will be applied, supporting rapid adaptation to evolving requirements.

Testing Approach:  
A combination of manual and automated testing will be performed, prioritizing high-impact functionalities.

Automation Focus:  
Selenium will handle functional and regression testing, maximizing efficiency in validating critical workflows.

## Testing Team Responsibilities

Tester 1: Estimation, test execution, and logging defect reports.  
Tester 2: Updating test scenarios and coordinating between testing and development teams.

## Test Case List

|  |  |  |
| --- | --- | --- |
| ID | Test Scenario | Test Case Description |
| 1 | Validate Sign-Up Page (Valid Input) | Verify that valid new user details allow sign-up completion. |
| 2 | Validate Sign-Up Page (Invalid Input) | Check that invalid email and password disable the sign-up action. |
| 3 | Validate Sign-Up Page (Existing User) | Ensure existing user details prompt an appropriate error message. |
| 4 | Validate Sign-In Page (Valid Credentials) | Confirm that valid credentials allow successful login. |
| 5 | Validate Sign-In Page (Invalid Credentials) | Ensure invalid credentials trigger an error message. |
| 6 | Validate Sign-Out | Verify successful sign-out upon action. |
| 7 | Node Onboarding (Valid Input) | Confirm user can add multiple valid nodes and proceed with onboarding. |
| 8 | Node Onboarding (Invalid Node ID) | Verify that invalid Node IDs disable the "Add Node" and "Next" buttons. |
| 9 | Node Onboarding (Invalid Public IP) | Ensure invalid IP format disables the "Add Node" and "Next" buttons. |
| 10 | Wallet Addition (Valid Details) | Confirm user can add multiple valid wallets and proceed. |
| 11 | Wallet Addition (Invalid Wallet Format) | Verify that invalid wallet addresses disable the "Add Wallet" button. |
| 12 | Submit Onboarding Request | Ensure successful submission of the onboarding request. |
| 13 | Private Blockchain Creation (Valid Details) | Validate creation of a new private blockchain with valid entries. |
| 14 | Private Blockchain Creation (Invalid Wallet Format) | Ensure invalid wallet format disables the "Next" button. |

## Defect Reporting and Tracking

All defects identified will be logged in JIRA with the following details:  
- Defect ID  
- Short Description  
- Detailed Description  
- Severity/Priority  
- Status