Test Plan for Xalts Blockchain Portal

# 1. Introduction

Objective:  
To validate the functional and non-functional aspects of the Xalts Blockchain Portal and ensure end-to-end functionality for all user actions.

Scope:  
Covers user onboarding, request submission (nodes, wallets, new blockchains), and session handling (Sign Up, Sign In, Sign Out).

# 2. Test Types and Objectives

|  |  |
| --- | --- |
| Test Type | Objective |
| Functional Testing | Ensure all user actions work as intended (e.g., signing up, submitting requests). |
| UI/UX Testing | Validate layout, labels, and interactions for user-friendliness. |
| Boundary Testing | Test field input limits (e.g., max length, IP value limits). |
| Input Validation | Ensure proper error handling for invalid inputs. |
| Integration Testing | Check data flow across modules (e.g., node submission to review screen). |
| Negative Testing | Ensure the system gracefully handles incorrect or unexpected input. |
| Smoke Testing | Validate core features work for basic end-to-end use. |
| Regression Testing | Confirm that new changes don’t break existing functionality. |
| Automation Testing | Speed up repetitive test coverage using scripts (e.g., auth flow). |

# 3. Test Environment

|  |  |
| --- | --- |
| App URL | https://xaltsocnportal.web.app |
| Browsers | Chrome, Firefox, Edge |
| Devices | Desktop only |
| Test Data | Valid/invalid emails, IPs, node IDs, wallet addresses |

# 4. Test Scenarios and Cases

## 4.1 Sign Up

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Test Case | Input | Expected Result | Type |
| TC1 | Valid Sign Up | Valid email + password | Account is created, user logged in | Positive |
| TC2 | Invalid Email Format | abc.com | Error: Invalid email | Negative |
| TC3 | Password Too Short | 123 | Error: Password too short | Negative |
| TC4 | Email Already Exists | Existing email | Error: Account already exists | Negative |

# 5. Automation Plan

|  |  |  |
| --- | --- | --- |
| Feature | Tool | Test Cases |
| Sign Up | Cypress/Selenium | TC1–TC4 |
| Sign In | Cypress/Selenium | TC5–TC7 |
| Sign Out | Cypress/Selenium | TC11 |

# 6. Reporting & Tracking

• Use GitHub Issues or TestRail to track test case results.  
• Maintain test logs and screenshots for failed cases.

# 7. Deliverables

• Test Plan Document  
• Automation Test Scripts (Sign Up, Sign In, Sign Out)  
• GitHub repository link