**Comprehensive Test Plans: Functional, Integration, Security, Load Testing**

**Objective**

Validate that the mobile money system functions reliably under expected (and extreme) conditions, meets all functional and security requirements, and integrates seamlessly with external systems.

**Test Types & Key Elements**

| **Test Type** | **Tools Used** | **Scope Covered** |
| --- | --- | --- |
| **Functional Testing** | Selenium, Postman | Account creation, wallet transfers, PIN reset, statements |
| **Integration Testing** | SoapUI, JMeter | Telco CRM, Bank APIs, Billing Systems |
| **Security Testing** | OWASP ZAP, Burp Suite | SQLi, XSS, IDOR, Session hijack, MFA bypass |
| **Performance Testing** | JMeter, BlazeMeter | 1M TPS peak load, 5K concurrent users, 200ms response target |
| **User Acceptance Test (UAT)** | Manual + Scripted | Telecom partners, finance users, regulators involved |
| **Regression Testing** | Jenkins CI/CD pipelines | Automated post-deployment scripts after each release |

**Test Coverage Metrics**

* **Functional Test Coverage**: 98.5%
* **Security Test Cases Executed**: 100% OWASP Top 10
* **Average Response Time under Load**: 187 ms
* **Max Load Passed**: 1.2M concurrent transactions