📄 Test Strategy Document

Project: SSO
Prepared by: Senior QA
Reviewed by: QA Lead
Date: 3rd May 2025

1️⃣ Objective

Ensure the end-to-end functionality, usability, performance, security, and data accuracy of **SSO** aligning with business and technical requirements.

2️⃣ Scope

✅ In Scope

- **Customer Workflows:**
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  - User Registration (Sign-up)
  - User Login & Logout
  - Dashboard navigation
  - modification & deletion
  - Reporting and analytics viewing

- **Account Management:**

  - Profile updates
  - Password reset

- **Integrations:**

  - API Endpoints (SSO management, user management, analytics)
  - Webhooks & third-party analytics integrations (e.g., Google Analytics)

- **Platform Coverage:**

  - Web application (Desktop + Mobile browsers)

❌ Out of Scope

- Mobile native apps (Android, iOS or now)

- Internal admin dashboards (for now)

- Third-party billing and payment workflows (handled externally)

3️⃣ Focus Areas

Area	Description
Functional Correctness	Ensure all user workflows operate as intended
Data Accuracy	Ensure correct reporting of A/B test results and metrics
UI / Navigation	Consistency, responsiveness, and intuitiveness of UI
Performance	Load, stress testing of high-traffic scenarios
Security	Vulnerability assessment (OWASP Top 10)
Compatibility	Cross-browser and device validation
Usability	Accessibility (WCAG 2.1 compliance) and user-friendliness
API Reliability	REST API testing (CRUD, auth, error handling)
Database Integrity	Backend data correctness and referential integrity
Server Log Validation	Ensure error-free server logs for key workflows

4 Test Approach

Testing Type	Approach / Tools
Functional Testing	Manual Testing (Test Scenarios & Cases), Selenium for UI automation
API Testing	Postman / Rest Assured (Java)
Database Testing	SQL queries using DBeaver
Log Validation	Kibana / Splunk (Server log monitoring)
Performance Testing	JMeter (Load & Stress Testing)
Security Testing	OWASP ZAP / Burp Suite
Cross-browser Testing	BrowserStack (Chrome, Firefox, Safari, Edge)
Accessibility Testing	Axe, Lighthouse
Exploratory Testing	Session-based test charters
Regression Testing	Automated regression suite (Selenium + TestNG)

5 Deliverables

- Functional Test Reports
- API Test Report
- Performance Test Results
- Security Assessment Report
- Cross-browser Compatibility Report
- Usability Evaluation Report
- UAT Sign-off Report
- Test Coverage & Defect Reports
- Automated Test Suite & Execution Logs

6 Team & Schedule

Team Composition

- 4 QA Engineers (2 Manual, 2 Automation)
- 1 Performance Tester
- 1 Security Tester (part-time)
- 1 Contingency Backup QA (floating)

Schedule

Month	Activity
May	Functional, API, Database & Security Testing
June	Performance Testing, Cross-browser Testing
July	Usability Evaluation, UAT
August	Final Regression Testing & Release Sign-off

UAT Participants

- 5 Business Stakeholders
- 5 Beta Users (Early Adopters)

7 Entry & Exit Criteria

Criteria	Description
Entry	- All user stories signed-off by Product - Test environment stable & accessible - APIs deployed and documented
Exit	- All functional & non-functional tests executed - No Critical/High open defects - Load test SLAs met (Avg Response < 2 sec @ 1000 users) - No OWASP Top 10 Critical/High vulnerabilities - UAT sign-off obtained - 95%+ Test Coverage achieved

🔟 Metrics to Track

- Requirement Coverage %
- Test Case Execution %
- Defect Density & Leakage Rate
- API Test Coverage %
- Automation Suite Pass Rate %
- Performance Metrics (TPS, Response time)
- Security Issues count (by severity)
- Usability Issues count

9️⃣ Risks & Mitigation

Risk	Mitigation
Frequent UI changes	Early collaboration with Dev + Flexible exploratory testing
API schema instability	API Contract Testing + Close dev sync
Limited UAT participants	Pre-identify backups from business team

🔟 Tools Stack

Category	Tool
Test Management	Jira + Zephyr
Automation	Selenium +TestNG
API Testing	Postman / Rest Assured
Database	DBeaver
Log Monitoring	Kibana / Splunk
Performance	JMeter
Security	OWASP ZAP / Burp Suite
Cross-browser	BrowserStack
Accessibility	Axe, Lighthouse
CI/CD	Jenkins

✅ Approval

Role	Name	Signature	Date
QA Manager			03-May-2025
QA Lead			03-May-2025
Product Owner			