# Test Strategy Document

Project: apo.vwo.com (A/B Testing Platform)

Prepared by: Senior QA Manager (20+ Yrs Experience)

Reviewed by: QA Lead (20+ Yrs Experience)

Date: 6th May 2025

## 1️⃣ Objective

Ensure the end-to-end functionality, usability, performance, security, and data accuracy of apo.vwo.com, an A/B testing platform, aligning with business and technical requirements.

## 2️⃣ Scope

In Scope:  
- User Registration (Sign-up)  
- User Login & Logout  
- Dashboard navigation  
- A/B Test creation, modification & deletion  
- Reporting and analytics viewing  
- Profile updates  
- Password reset  
- API Endpoints (A/B test management, user management, analytics)  
- Webhooks & third-party analytics integrations (e.g., Google Analytics)  
- Web application (Desktop + Mobile browsers)  
  
Out of Scope:  
- Mobile native apps (Android, iOS)  
- Internal admin dashboards  
- Third-party billing and payment workflows

## 3️⃣ Focus Areas

- Functional Correctness  
- Data Accuracy  
- UI / Navigation  
- Performance  
- Security  
- Compatibility  
- Usability  
- API Reliability  
- Database Integrity  
- Server Log Validation

## 4️⃣ Test Approach

- Functional Testing: Manual Testing, Selenium  
- API Testing: Postman / Rest Assured  
- Database Testing: SQL queries using DBeaver  
- Log Validation: Kibana / Splunk  
- Performance Testing: JMeter  
- Security Testing: OWASP ZAP / Burp Suite  
- Cross-browser Testing: BrowserStack  
- Accessibility Testing: Axe, Lighthouse  
- Exploratory Testing: Session-based test charters  
- Regression Testing: Selenium + TestNG

## 5️⃣ 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

## 6️⃣ Team & Schedule

Team:  
- 4 QA Engineers (2 Manual, 2 Automation)  
- 1 Performance Tester  
- 1 Security Tester (part-time)  
- 1 Contingency Backup QA  
  
Schedule:  
- May: Functional, API, DB & Security Testing  
- June: Performance & Cross-browser Testing  
- July: Usability Evaluation, UAT  
- August: Final Regression Testing  
  
UAT Participants:  
- 5 Business Stakeholders  
- 5 Beta Users

## 7️⃣ Entry & Exit Criteria

Entry:  
- All user stories signed-off  
- Stable test environment  
- Deployed & documented APIs  
  
Exit:  
- All test cases executed  
- No Critical/High open defects  
- Load test SLAs met (Avg Response < 2 sec @ 1000 users)  
- No OWASP Top 10 Critical/High issues  
- UAT sign-off received  
- 95%+ Test Coverage

## 8️⃣ Metrics to Track

- Requirement Coverage %  
- Test Case Execution %  
- Defect Density & Leakage Rate  
- API Test Coverage %  
- Automation Suite Pass Rate %  
- Performance Metrics  
- Security & Usability Issue counts

## 9️⃣ Risks & Mitigation

- UI Changes: Close Dev Collaboration  
- API Instability: Contract Testing  
- Limited UAT Users: Backup Beta Pool

## 🔟 Tools Stack

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

## ✅ Approval

Role | Name | Signature | Date  
QA Manager |   
QA Lead | Senior QA Lead |   
Product Owner |