Test Strategy Document

Project: apo.vwo.com (A/B Testing Platform)
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1. 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.

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2. Scope

✅ In Scope

- **Customer Workflows:**
  - User Registration (Sign-up)
  - User Login & Logout
  - Dashboard navigation
  - A/B Test creation, modification & deletion
  - Reporting and analytics viewing
- **Account Management:**
  - Profile updates
  - Password reset
- **Integrations:**
  - API Endpoints (A/B test 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)
- Internal admin dashboards (for now)
- Third-party billing and payment workflows (handled externally)

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3. 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

Area	Description
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)

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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

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8. 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

9. 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

10. 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

11. Approval

Role	Name	Signature	Date
QA Manager	Pramod Dutta	*(signed)*	03-May-2025
QA Lead	Senior QA Lead	*(signed)*	03-May-2025
Product Owner	[Name]	*(pending)*	—