# Test Plan — App.vwo.com A/B Testing Platform (Phase 1)

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Project: A/B Testing Web Platform — Login & Dashboard Modules

## 1. Objective / Purpose

* Define QA approach, test coverage, and execution plan for App.vwo.com A/B Testing platform.
* Focus on authentication, dashboard analytics, and campaign management workflows.
* Ensure security, usability, and performance before production release.

## 2. Scope

* In-Scope: Login/Sign-up, Dashboard metrics, Campaign lifecycle, Security, and Analytics verification.
* Out-of-Scope: Multivariate tests, mobile app features, 3rd-party analytics, non-production integrations.

## 3. Test Objectives

* Detect functional and UI defects early.
* Validate variant traffic allocation and conversion attribution.
* Confirm dashboard metric accuracy and automation stability.

## 4. Test Environment

* OS: Windows 10/11, macOS Monterey+, Ubuntu LTS.
* Browsers: Chrome, Firefox, Edge, Safari.
* Devices: Desktop primary, tablet/mobile responsive checks.
* Network: Wi-Fi and throttled 3G/4G.
* Accounts: Active, Expired, Paid users.
* Environment URL: https://app.vwo.com.
* Backend APIs: Auth, Campaign, Reporting, User Management.
* Database: MySQL replica.

## 5. Roles & Responsibilities

* QA Lead: Plan, review, manage risk, sign-off.
* Test Engineer: Manual testing, defect reporting, data validation.
* SDET: Automation suite creation and maintenance.
* Product Owner: UAT and requirement validation.
* DevOps: Environment setup, CI/CD monitoring.
* Release Manager: Coordinate release readiness.

## 6. Assumptions & Dependencies

* Login and Dashboard requirements are approved.
* Test data and environment available.
* Stable APIs for authentication and reporting.
* Mock analytics endpoint for non-prod tests.

## 7. Risks & Mitigation

* Ambiguity in metrics — Clarify schema with Product.
* Environment downtime — Maintain backup environment.
* Browser conflicts — Use latest stable versions.
* Trial expiry inconsistencies — Simulate time controls.

## 8. Test Items / Features to Test

* Login: Authentication, password reset, token expiration.
* Dashboard: Variant traffic, KPIs, export, visualization.
* Campaign Management: Create, start, pause, delete campaign.

## 9. Test Types & Levels

* Functional, Integration, Regression, Smoke, Security, Performance, Accessibility.

## 10. Test Design Techniques

* Equivalence Partitioning, Boundary Value, Decision Table, State Transition, Error Guessing.

## 11. Test Data Strategy

* Synthetic anonymized data.
* Separate datasets for positive/negative cases.
* Refresh before regression.
* Maintain golden datasets for automation.

## 12. Automation Plan

* Framework: Selenium + TestNG + POM.
* Scope: Smoke, Regression, API tests.
* Integration: Jenkins CI/CD.
* Reports: Allure or Extent integrated with Jira.
* Target 70% automation coverage.

## 13. Execution Approach

* Daily smoke after deployment.
* Manual validation for new features.
* Regression before release.
* Defect re-testing and closure verification.

## 14. Entry & Exit Criteria

* Entry: Stable environment, approved data, smoke passed.
* Exit: 95% coverage, 0 Sev1/2 defects, ±0.5% KPI accuracy, UAT signed.

## 15. Defect Management

* Tool: Jira.
* Severity: Critical, High, Medium, Low.
* Priority: P1–P4.
* Lifecycle: New → Assigned → Fixed → Retest → Closed.
* Weekly triage with QA Lead and PO.

## 16. Metrics & Reporting

* Defect Density = Defects/KLOC.
* Defect Leakage = Prod/Total Defects × 100.
* Execution Rate, Pass Rate ≥95%, Automation Success Rate.

## 17. Test Schedule

* Planning: 2 days.
* Design: 5 days.
* Setup: 3 days.
* Execution: 10–12 days.
* UAT: 3 days.
* Closure: 2 days.

## 18. Deliverables

* Test Plan, Test Cases, Automation Scripts, Traceability Matrix, Defect Reports, Summary Report, Sign-off.

## 19. Performance & Scalability

* Tool: JMeter.
* 500 concurrent login, 1000 dashboard users.
* Login ≤2s, Dashboard ≤4s, Error rate <1%.

## 20. Security & Compliance

* OWASP Top 10 validation.
* Session and token security checks.
* HTTPS enforcement, GDPR/CCPA compliance.

## 21. Accessibility & Usability

* WCAG 2.1 AA compliance.
* Keyboard navigation, contrast validation, responsive UI.

## 22. Communication & Reporting

* Daily QA standups.
* Weekly progress reports.
* Twice-weekly defect triage.
* Pre-release readiness review.

## 23. Approvals

* QA Lead: Simran Shaikh.
* Product Owner: TBD.
* Release Manager: TBD.