# Test Plan : 1

**1. Test Plan Identifier**

**Document ID**: TP-AmazonEcom-001  
**Version**: 1.0  
**Date**: 2025-05-07

**2. Introduction**

This test plan describes the testing strategy and approach for validating the functionality, performance, security, and usability of the Amazon-like e-commerce web and mobile application. The goal is to ensure the system meets all functional and non-functional requirements.

**3. Objectives**

* Verify all features of the e-commerce platform function as expected (e.g., user login, product browsing, cart, checkout).
* Identify and resolve bugs or inconsistencies in the UI and backend.
* Ensure performance, load, and security requirements are met.
* Validate cross-browser and cross-device compatibility.

**4. Scope**

**In Scope:**

* User registration/login
* Product search and filtering
* Product detail pages
* Add to cart / remove from cart
* Checkout and payment
* Order tracking
* Reviews and ratings
* Wishlist functionality
* Admin panel (for product & order management)
* Notifications (email/SMS/push)
* Mobile app (Android/iOS)

**Out of Scope:**

* Third-party logistics systems
* External payment gateway testing (only interface tested)

**5. Test Items**

* Web Application (desktop and mobile view)
* Mobile Application (Android & iOS)
* Backend APIs
* Admin Panel

**6. Test Types / Test Strategy**

| **Test Type** | **Description** |
| --- | --- |
| **Functional Testing** | Validate features like login, cart, checkout, etc. |
| **UI Testing** | Ensure UI/UX consistency across browsers/devices |
| **Regression Testing** | Validate old features after new changes |
| **Integration Testing** | Validate interaction between components (e.g., UI + backend API) |
| **Performance Testing** | Load and stress testing of APIs and key workflows |
| **Security Testing** | Authentication, authorization, data protection |
| **Usability Testing** | Ease of navigation, search, checkout experience |
| **Compatibility Testing** | Browsers (Chrome, Firefox, Safari), Devices (mobile/tablet/desktop) |

**7. Test Environment**

* **Frontend**: ReactJS / HTML5 / CSS3
* **Backend**: NodeJS / Java Spring Boot / Python Django (depending on stack)
* **Database**: MySQL / MongoDB
* **Test Environments**:
  + Dev
  + QA
  + Staging
* **Devices**: Android (v10+), iOS (v14+), Tablets
* **Browsers**: Chrome, Firefox, Safari, Edge (latest versions)

**8. Entry and Exit Criteria**

**Entry Criteria:**

* Code is deployed to QA/Staging environment
* Functional specs approved
* Test data available

**Exit Criteria:**

* All high/critical severity bugs are resolved
* At least 95% test cases passed
* Regression testing complete
* Performance and security test reports signed off

**9. Test Deliverables**

* Test Plan document
* Test Cases (manual + automation)
* Test Data
* Test Execution Report
* Defect Report
* Final Test Summary Report
* Automation Scripts

**10. Testing Tools**

| **Purpose** | **Tool Suggestion** |
| --- | --- |
| Test Management | Jira, TestRail, Zephyr |
| Automation | Selenium, Appium, Cypress |
| API Testing | Postman, SoapUI, JMeter |
| Performance Testing | JMeter, Gatling |
| Bug Tracking | Jira, Bugzilla |
| Security Testing | OWASP ZAP, Burp Suite |

**11. Test Schedule**

| **Phase** | **Start Date** | **End Date** |
| --- | --- | --- |
| Test Planning | May 1 | May 5 |
| Test Case Design | May 6 | May 12 |
| Test Environment Setup | May 6 | May 10 |
| Test Execution (Cycle 1) | May 13 | May 24 |
| Bug Fixes & Regression | May 25 | June 3 |
| Final Report | June 4 | June 5 |

**12. Roles and Responsibilities**

| **Role** | **Responsibility** |
| --- | --- |
| Test Manager | Planning, Reporting, Resource Management |
| QA Engineers | Test case creation, execution |
| Automation QA | Script development, maintenance |
| Developers | Bug fixing, unit testing |
| Product Owner | Requirement validation |

**13. Risk Management**

| **Risk** | **Mitigation Plan** |
| --- | --- |
| Unclear requirements | Early review with stakeholders |
| Environment unavailability | Backup test environments |
| Delays in development | Buffer in schedule, prioritize critical paths |
| Test data insufficiency | Use mock data or synthetic data generators |

**14. Approvals**

| **Name** | **Role** | **Signature / Date** |
| --- | --- | --- |
| QA Lead |  |  |
| Project Manager |  |  |
| Product Owner |  |  |