**Test Plan & Test Cases Document**

**Project Name:** E-Commerce Application  
**Version:** 1.0  
**Prepared By:** [Insert Name]  
**Date:** [Insert Date]

**1️⃣ Test Plan**

**1.1 Objective**

Ensure all functional and non-functional aspects of the e-commerce application are thoroughly tested for quality, reliability, performance, and security.

**1.2 Testing Scope**

| **In Scope** | **Out of Scope** |
| --- | --- |
| User registration/login | Third-party payment gateway internal testing |
| Product catalog & search | ERP integration (if applicable) |
| Cart & checkout | Mobile app testing (Phase 2) |
| Payment processing | Backend database performance tuning |
| Order management | Load testing beyond 10,000 concurrent users |
| Admin panel operations | Multi-vendor features (Phase 2) |

**1.3 Testing Types**

* Functional Testing
* Regression Testing
* API Testing
* UI/UX Testing
* Integration Testing
* System Testing
* UAT (User Acceptance Testing)
* Security Testing
* Performance Testing

**1.4 Test Environments**

* **Frontend:** Web browsers (Chrome, Firefox, Edge)
* **Backend:** APIs tested via Postman/Swagger
* **Database:** MySQL/PostgreSQL test instance
* **Deployment:** Cloud-hosted staging environment

**1.5 Entry & Exit Criteria**

* **Entry Criteria:**
  + Stable build deployed to staging
  + APIs exposed and functional
  + Database initialized with test data
* **Exit Criteria:**
  + All critical/high test cases passed
  + No open severity 1/2 defects
  + UAT sign-off received

**1.6 Roles & Responsibilities**

| **Role** | **Responsibility** |
| --- | --- |
| QA Lead | Test planning, reporting |
| Test Engineers | Test execution, defect logging |
| Developers | Fix defects |
| Product Owner | UAT execution |

**2️⃣ Test Cases**

**Module: User Registration & Login**

| **Test Case ID** | **Test Scenario** | **Test Steps** | **Expected Result** |
| --- | --- | --- | --- |
| TC-001 | Register new user | Enter valid data and submit | User registered and confirmation received |
| TC-002 | Register with existing email | Submit form with duplicate email | Error message displayed |
| TC-003 | Login with correct credentials | Submit login form with valid email/password | User logged in, redirected to homepage |
| TC-004 | Login with incorrect password | Submit login form with wrong password | Error message displayed |
| TC-005 | Forgot Password | Request password reset email | Reset link sent to registered email |

**Module: Product Catalog**

| **Test Case ID** | **Test Scenario** | **Test Steps** | **Expected Result** |
| --- | --- | --- | --- |
| TC-006 | Search for product | Enter keyword in search bar | Relevant products displayed |
| TC-007 | Filter by category | Select category from filters | Products under selected category displayed |
| TC-008 | Sort products | Select price low-to-high | Products sorted accordingly |
| TC-009 | View product details | Click on a product | Product detail page with images, price, description displayed |

**Module: Cart & Checkout**

| **Test Case ID** | **Test Scenario** | **Test Steps** | **Expected Result** |
| --- | --- | --- | --- |
| TC-010 | Add product to cart | Click "Add to Cart" | Product added, cart updated |
| TC-011 | Update quantity in cart | Increase/decrease item quantity in cart | Cart total updated accordingly |
| TC-012 | Remove item from cart | Click remove on cart item | Item removed, cart updated |
| TC-013 | Checkout with valid payment | Proceed to checkout, complete payment | Order confirmation page displayed |
| TC-014 | Checkout with payment failure | Simulate failure from payment gateway | Error message displayed, order not placed |

**Module: Order Management**

| **Test Case ID** | **Test Scenario** | **Test Steps** | **Expected Result** |
| --- | --- | --- | --- |
| TC-015 | View past orders | Login → View Order History | List of past orders displayed |
| TC-016 | Track an order | Click on "Track Order" | Order status displayed |
| TC-017 | Cancel unshipped order | Click on "Cancel Order" | Order status updated to "Cancelled" |

**Module: Admin Panel**

| **Test Case ID** | **Test Scenario** | **Test Steps** | **Expected Result** |
| --- | --- | --- | --- |
| TC-018 | Admin login | Login as admin | Access granted to admin dashboard |
| TC-019 | Add new product | Enter product details and submit | Product added, visible in catalog |
| TC-020 | Edit product details | Update existing product and save | Product information updated |
| TC-021 | View sales reports | Navigate to Reports | Sales report data displayed |

**3️⃣ Defect Reporting Process**

* Log defects in [Jira / Azure DevOps / Bugzilla]
* Include:
  + Test Case ID reference
  + Steps to reproduce
  + Screenshots/logs
  + Severity & priority assignment
* Assign to developers for resolution

**4️⃣ Summary Reports**

* Daily test execution progress
* Defect summary reports (by severity, module)
* Final test summary with pass/fail percentage

**5️⃣ Sign-Off**

| **Name** | **Role** | **Signature** | **Date** |
| --- | --- | --- | --- |
| QA Lead | Quality Assurance |  |  |
| Project Manager | Project Lead |  |  |
| Product Owner | Business Lead |  |  |