Test Strategy Document – OpenCart E-Commerce Application

1. Introduction
This Test Strategy document defines the overall testing approach, objectives, scope, test levels, techniques, resources, environment, schedule, risks, and exit criteria for the OpenCart E-Commerce Application. The purpose of this document is to ensure that the application meets functional, non-functional, security, and usability requirements before release.

2. Test Objectives
• Verify that all core e-commerce functionalities work as per requirements.
• Ensure a secure, stable, and user-friendly shopping experience.
• Identify defects early and reduce production risks.

3. Scope of Testing
In-Scope:
• User Registration and Login
• Product Catalog and Add to Cart
• Checkout and Payment Gateway Integration
• Order History and Order Management
• UI, Usability, and Cross-Browser Testing

Out-of-Scope:
• Third-party payment gateway internal logic
• Production data validation
• Hardware-level performance tuning

4. Test Levels
• Unit Testing: Performed by developers for individual components
• Integration Testing: Validation of module interactions
• System Testing: End-to-end functional and non-functional testing
• User Acceptance Testing (UAT): Business validation by stakeholders

5. Test Techniques
• Black Box Testing: System and acceptance testing
• Equivalence Partitioning & Boundary Value Analysis: Functional testing
• Exploratory Testing: Usability and edge-case validation
• Regression Testing: Post-fix and build validation

6. Test Environment
Hardware:
• Desktop, Laptop, Android & iOS devices

Software:
• OS: Windows 10, macOS, Linux

• Browsers: Chrome, Firefox, Edge, Safari
• Tools: JIRA, Selenium, JMeter

Network:
• Secure Internet with SSL enabled

Devices/Browsers:
• Desktop, Mobile, Tablet across major browsers

7. Test Schedule
• Test Planning: Day 1
• Test Case Design: Day 2
• Test Execution: Day 3
• Regression & Retesting: Day 4
• Test Closure & Reporting: Day 5

8. Test Deliverables
• Test Strategy Document
• Test Cases & Test Data
• Defect Reports
• Test Execution & Summary Reports

9. Resource Planning
• Test Lead: Planning, coordination, reporting – 1 Resource
• Test Engineers: Test case design & execution – 2 Resources
• Automation Engineer: Script maintenance – 1 Resource

10. Risk Assessment and Mitigation
• Requirement Changes: Frequent review meetings
• Environment Unavailability: Backup environments
• Tight Timelines: Parallel test execution

11. Test Exit Criteria
• 95% test cases executed
• No Critical or High severity defects open
• Test summary report approved

12. Test Metrics and Reporting
KPIs:
• Test Case Execution Percentage
• Defect Density
• Defect Closure Rate

Reporting Structure:
• Daily Status Reports to Test Lead
• Weekly Summary to Stakeholders