

Test Plan - OpenCart Demo Website

1. Introduction

1.1 Purpose

The purpose of this document is to define the testing approach, scope, objectives, strategy, and execution framework for the OpenCart Demo Website project. It serves as a guideline for QA activities to ensure product quality and consistency.

1.2 Project Overview

The OpenCart Demo Website is an e-commerce platform that allows users to register, log in, browse products, add them to their cart, and complete checkout. The project includes testing the website's core functionalities, backend data integrity, and API interactions.

2. Scope

2.1 In-Scope

- User Registration and Login
- Product Search and Browsing
- Add to Cart and Checkout Process
- User Profile and Order History
- Admin Dashboard basic functionalities

2.2 Out-of-Scope

- Third-party payment gateways
- Performance and load testing
- Penetration or security testing

3. Testing Strategy

3.1 Test Objectives

- Validate all functional modules for correct behavior.
- Ensure usability and stability across browsers.
- Verify backend database updates align with front-end actions.
- Automate regression testing for core features.

3.2 Test Assumptions

- The website is stable and accessible during testing.
- Test data and environment are properly configured.
- All dependencies such as APIs and product data are available.

3.3 Data Approach

Test data will include dummy users, sample products, and test orders. Data will be reset between major test cycles to maintain consistency and avoid conflicts. Sensitive data will not be used.

3.4 Level of Testing

Unit Testing - Conducted by developers before QA testing.

Functional Testing - Conducted by QA team to verify UI and workflows.

User Acceptance Testing - Conducted to ensure business requirements are met.

Regression Testing - Automated verification after each release.

4. Execution Strategy

4.1 Entry Criteria

- Stable build deployed on the test environment.
- Test data prepared and accessible.
- All required APIs and modules are integrated.
- Test cases reviewed and approved by QA Lead.

4.2 Exit Criteria Security

- All test cases executed.
- 90% or higher pass rate achieved.
- No open critical or high-severity defects.
- Test summary report completed and approved.

4.3 Validation and Defect Management

All test cases will be validated according to predefined acceptance criteria. Defects will be logged in Jira or Excel with severity levels (Critical, High, Medium, Low). Testers are responsible for logging, retesting, and closing defects upon confirmation from the development team.

5. Environment Requirements

Test Environment	https://demo.opencart.com/
Browsers	Chrome, Firefox, Edge
Tools	Selenium (Java), Postman, MySQL, Excel
Test Data	Dummy users, products, and orders
Security	No real financial transactions or personal data will be used.

6. Roles and Responsibilities

Test Lead - Plan and oversee test execution.

QA Engineer - Design, execute, and report test cases.

Automation Engineer - Develop Selenium test scripts and regression suite.

API Tester - Validate API endpoints using Postman.

Database Administrator - Validate data consistency in the backend.

7. Schedule

Task name	Days	Task name	Days
Requirement Analysis		Automation Development	
Test Planning		API & Database Testing	
Manual Testing		Reporting & Closure	

8. Risks and Mitigation

Risk: Unstable demo environment → Mitigation: Use a local OpenCart setup.

Risk: Limited access to APIs or DB → Mitigation: Use mock data or logs.

Risk: Tight deadlines → Mitigation: Prioritize critical functionalities.

9. Dependencies

- Availability of stable OpenCart build.
- Access to necessary test environments and accounts.
- Coordination with development team for defect fixes.
- Timely approval of test data and cases.

10. Approval

Group Code: ONL3_SWD6_S1

Prepared By:

Ahmed Hegazy Mahrous.

Steven Ezzat Halim.

Ahmed Adel Mohamed.

Reviewed & Approved:

Youssef Bahaa Ali.

Mostafa Aiman Hassan.

Mohammed Ahmed Abd El Hamed.

Date: 16 / 10 / 2025