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1. Introduction:

This test plan outlines the testing strategy for the E-Commerce Application OpenCart, version 1.0. The primary objective is to ensure the application meets specified requirements and operates without defects. This document provides a high-level overview of the test planning process, detailing the project scope, test strategy, schedule, resource needs, and expected deliverables.

2. Test Items:

* E-Commerce Application: OpenCart, version x.x

3. Features to be tested:

* Register

* Login & Logout

* Forgot Password

* Search

* Product Compare

* Product Display Page

* Add to Cart

* Wish List

* Shopping Cart

* Currencies

* Home Page

* Checkout Page

* My Account Page

* Order History Page

* Download Pages

* Contact Us Page

* Menu Option

* Footer Options

* Category Pages

The above functional areas will be the focus of our testing efforts.

4. Features not to be tested:

- Features not explicitly listed in section 3, "Features to be tested," are excluded from testing.
- Payment gateway integration will be tested.
- Automated testing is out of scope for this plan.

5. Test Environment:

- Operating system: Windows 11
- Browsers: Google Chrome, Firefox, Edge

6. Tools:

The following tools will be utilized during this project:

- Bug tracking system
- Word and Excel for documentation

7. Test Schedule:

- Test Planning: April 10 - April 15, 2025
- Test Case Creation: April 16 - April 20, 2025
- Test Execution: April 21 - April 30, 2025
- Regression Testing: May 1 - May 5, 2025
- Test Closure and Review: May 6, 2025

8. Test Responsibilities:

Test Manager: Provides guidance to the testing team and ensures alignment with project and client requirements.

QA Testers: Execute test cases, log and report defects, and ensure comprehensive test coverage.

9. Test Approach/Strategy:

Manual testing will be the primary method for assessing the features and functionalities of the OpenCart application. The functional testing process will include the following steps:

Step#1 – Creation of Test Scenarios and Test Cases covering the features outlined in Section 3 (Features to be Tested).

- We will employ various test design techniques during test case creation, including:
- Equivalence Class Partitioning
- Boundary Value Analysis
- Decision Table Testing
- State Transition Testing
- Use Case Testing
- Our expertise will also be leveraged by applying:
- Error Guessing
- Exploratory Testing.
- Test cases will be prioritized based on risk and criticality.

Step#2 – Our testing process upon receiving the application:

- Initial smoke testing will be performed to verify the core functionalities of the application.
- The build will be rejected if smoke testing fails, and further testing will be suspended until a stable build is provided.
- Upon receiving a stable build that passes smoke testing, in-depth testing will be conducted using the created test cases.
- Multiple testers will simultaneously test the application across various supported environments.
- Identified defects will be reported in the bug tracking system, and a daily defect status report will be sent to development management.
- The following types of testing will be performed:
- Smoke and Sanity Testing
- Regression and Retesting
- Usability, Functionality, and UI Testing
- The test cycle will be repeated until a high-quality product is achieved.

Step#3 - The following test practices will be implemented to enhance testing effectiveness:

- Context-Driven Testing: Testing will be tailored to the specific context of the application.
- Shift-Left Testing: Testing activities will commence early in the development lifecycle.
- Exploratory Testing: Expertise-based exploratory testing will supplement standard test case execution.

10. Defect Reporting Procedure:

During Test Execution:

- Any deviation from expected application behavior will be documented. If it cannot be immediately classified as a defect, it will be reported as an observation or a question.
- Any usability issues will be reported.
- After a defect is discovered, it will be retested to confirm its reproducibility.
- Screenshots and detailed steps to reproduce the defect will be documented.
- A daily defect report, including observations, will be distributed at the end of each testing day.

Note:

- Defects will be tracked in an Excel spreadsheet.
- Test scenarios and test cases will be documented in an Excel document.

11. Entry and Exit Criteria of STLC Phases

1) Requirement Analysis:

→Entry:

- The testing team receives the Requirements Document or project details.

←Exit:

- The testing team has thoroughly reviewed and understood the requirements.
- All questions and ambiguities are resolved.

2) Test Planning:

→Entry:

- Testable requirements are derived from the provided requirements or project details.
- All related questions are resolved.

←Exit:

- The Test Plan document is approved by the client.

3) Test Design:

→Entry:

- The Test Plan document is approved by the client.

←Exit:

- Test scenarios and test case documents are approved by the client.

4) Test Execution:

→Entry:

- Test scenarios and test case documents are approved by the client.
- The application is ready for testing.

←Exit:

- Test case execution report and defect report are completed.

5) Test Closure:

→Entry:

- Test Case Reports and Defect reports are finalized.

←Exit:

- Test closure report is issued.

12. Test Completion Criteria

- All identified defects must be resolved and verified.
- All test cases must be executed and passed.
- All test deliverables must be completed and submitted.
- Performance tests must meet predefined threshold limits.

13. Risks and Mitigations

The following are potential risks and mitigation strategies:

1. Risk: Resource unavailability

Mitigation: Maintain a backup resource pool.

1. Risk: Build URL malfunction

Mitigation: Affected resources will be reassigned to other tasks.

14. Approvals

Client approval is required for the following documents:

- Test Plan
- Test Scenarios
- Test Cases
- Reports

Testing will proceed to subsequent phases only after these approvals are obtained.

15. Test Deliverables:

- Test Cases
- Test Reports
- Defect Reports