# **Test Plan**

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## Introduction

This Test Plan would serve as an outline for the comprehensive testing strategy and approach for ensuring the quality, reliability, and performance of our ecommerce website. This document serves as a guiding blueprint for all testing activities associated with the development and deployment of the website, providing a structured framework to achieve a high level of confidence in its functionality and usability.

## Objective

The objective of this test plan is to ensure that the e-commerce platform meets all the functional requirements, provides a user-friendly experience, is secure, and performs well under various load conditions.

The primary objectives of this test plan are as follows:

a. ensure that the e-commerce platform meets all the functional requirements.

b. To provide a user-friendly experience.

c. To verify the website's security measures to safeguard customer data and transactions.

d. To document the testing process and results for transparency and compliance.

e. To ensure the performance under various load conditions.

## Scope

The scope of this test plan includes the following areas:

* Login and registration functionality
* Add to cart and checkout functionality.
* Payment gateway functionality
* Order management and fulfillment functionality

## Risks

* Team member issues
* Time
* Budget

## Inclusions

Test strategy document

## Test Environments

The following test environments will be used:

|  |  |
| --- | --- |
| **Name** | **Env url** |
| QA | http://localhost/opencartsite/ |

Operating System: Windows 10

Browser: Chrome

Device Type: Desktop computer

## Tools

Testing Management: Jira, Confluence, Zephyr

Test Tools: Test Rail

## Test Strategy

|  |  |
| --- | --- |
| **Component** | **Description** |
| Objectives | * Ensure the e-commerce website is reliable, secure, and user-friendly. * Verify that all features and functionalities work as expected. * Validate the performance of the website. |
| Test Levels | 1. Unit Testing:   * Purpose: Unit testing focuses on verifying the smallest units of code, such as functions or methods, in isolation to ensure they work correctly. * Scope: It involves testing individual components or modules of the software. * Objectives: * Ensure each unit of code performs its intended functionality accurately. * Detect and fix coding errors, logic issues, and bugs at an early stage. * Verify that functions and methods produce the expected outputs for various inputs.   2. Integration Testing:   * Purpose: Integration testing validates the interactions between different units or modules to ensure they function correctly when combined. * Scope: It involves testing the interfaces and interactions between various components or modules. * Objectives: * Verify that units/modules can work together without errors. * Identify and rectify issues related to data exchange and communication. * Ensure that integrated components maintain data consistency and integrity.   3. System Testing:   * Purpose: System testing evaluates the entire system as a whole, testing it against the specified requirements and business use cases. * Scope: It encompasses the entire application, including all integrated components. * Objectives: * Confirm that the software meets functional and non-functional requirements. * Validate that the system works as expected in different scenarios. * Identify any system-level defects, performance issues, or security vulnerabilities.   4. Acceptance Testing:   * Purpose: Acceptance testing ensures that the software meets the business requirements and is ready for deployment. * Scope: It involves testing the system from a user's perspective, often in a production-like environment. * Objectives: * Validate that the software fulfills business and user requirements. * Ensure that the software aligns with user expectations and needs. * Obtain user or stakeholder approval for production release. |
| Test Types | * Functional Testing * Usability Testing * Security Testing * Performance Testing * Compatibility Testing * Regression Testing |
| Test Techniques | * Black Box Testing * White Box Testing * Exploratory Testing * User Interface Testing * API Testing * Load Testing * Security Scanning * Cross-browser Testing |
| Test Deliverables | * Test Plan * Test Cases and Test Scripts * Test Data * Defect Reports * Traceability Matrix |
| Test Environment | * Browsers (Chrome) * Database Servers * Testing Tools (JIRA, Confluence, Zephyr,Testrail) |
| Test Exit Criteria | * No high-priority defects in the production environment. * All critical and major defects are resolved and verified. * Performance benchmarks meet or exceed predefined standards. * All test cases and requirements are covered. * User acceptance testing (UAT) is successful. * Stakeholder sign-off on the test closure report. |

## Entry Criteria

* Requirements and test goals are clear for the team.
* All environments and test tools are ready for use.

## Exit Criteria

* All possible tests were executed.
* Maximum defect fixed.
* No high-priority defects in the production environment.
* All critical and major defects are resolved and verified.