Test Plan

For

**OPENCART E-COMMERCE**

**WEBSITE**

**OCTOBER 2023**

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# 1. Introduction:

This ‘Test Plan Document’ is for an E-Commerce Web Application named **OpenCart** (version 1.0). The purpose of this Test Plan is to establish a clear roadmap for the testing phase, detailing the features to be tested, the test environment, responsibilities, schedules, and the overall approach to ensure the quality and reliability of the OpenCart E-Commerce Web App. This document will guide the testing team and stakeholders throughout the testing process and contribute to the delivery of a robust and customer-centric online shopping platform.

# 2. Test Items:

E-Commerce Web Application: OpenCart Version 1.0

# 3. Features to be tested:

* Register
* Login & Logout
* Forgot Password
* Home Page
* Header
* Currency Block
* Contact Us page
* My Account
* Wish List
* Shopping Cart Page
* Checkout Page
* Search Bar
* Shopping Cart Button
* Product Categories (Top Menu)
* Slideshow
* Featured Products Section
* Categories Product Listing Page(s)
* Product Compare
* Products Display functionality (List/Grid)
* Sort by functionality
* Show box functionality
* Product Pages
* Product Description
* Product Specification
* Ratings & Reviews
* Footer Options

The features/functional areas mentioned above need to be tested according to our understanding & knowledge.

# 4. Features not to be tested:

* Features that are not mentioned above (in section 3) will not be tested.
* Payment Gateway will not be tested.

# 5. Test Environment:

* Operating System: Windows 10
* Web Browsers: Google Chrome, Microsoft Edge

# 6. Tools:

* Microsoft Word
* Microsoft Excel

# 7. Schedule:

|  |  |  |
| --- | --- | --- |
| Phases | Start Date (DD-MM-YYYY) | End Date (DD-MM-YYYY) |
| Test Planning | 02/10/2023 | 07/10/2023 |
| Test Case Design | 08/10/2023 | 14/10/2023 |
| Test Execution | 14/10/2023 | 25/10/2023 |
| Test Closure | 26/10/2023 | 26/10/2023 |

# 8. Roles & Responsibilities:

|  |  |  |
| --- | --- | --- |
| Name | Role | Responsibilities |
| Mr. Danish | Test Manager | * Overall Supervision * Client Escalations * Dealing Project Problems * Resource Allocation * Creating Delivery Time-lines for a project etc. |
| Mr. Adeel | Test Lead | * Managing Testing Team * Assigning Tasks * Reviewing Tasks * Collecting Reports / Test Results * Take Responsibility of Test Plans and other Test Artifacts * Create Test Plans and Test Cases * Execute Test Cases * Creating and Maintaining Test Reports and Defect Reports |
| Mr. Asim | Senior Test Engineer | * Create Test Plans and Test Cases * Execute Test Cases * Creating and Maintaining Test Reports and Defect Reports |
| Mr. Hassan | Test Engineer | * Execute the test cases (performs testing) * Defects Reporting |
| Mr. Shiraz | Developer | * Bug fixing and supporting the testing process |
| Mr. Hamza | Server Admin | * Responsible for test environment maintainability |

# 9. Testing Strategy/Approach:

We will use manual testing to test all the functionalities/features of the OpenCart Web Application. As part of ‘Functional Testing’ we will follow these testing approaches:

**Step 1 - Creation of Test Scenarios & Test Cases:** Test scenarios & Test cases will be created for the testing of different features in scope (refer **section 3. ‘Features to be tested’**) of OpenCart web app to ensure maximum test coverage of the Application Under Test (AUT).

* Several Black Box testing design techniques will be used to write the test cases:
* Equivalence Class Partitioning
* Boundary Value Analysis
* Decision Table Testing
* State Transition Testing
* Use Case Testing
* We will also use the following Experience-Based Testing techniques to track/identify unusual bugs residing in the AUT:
* Exploratory Testing
* Error Guessing
* We will also prioritize the test cases according to different risks and business needs.

**Step 2 - Testing Process:**

We’ll follow the following testing process when we will get the first build:

* Firstly we’ll perform Smoke testing on the build to check the basic & critical functionalities of the web app are working as intended or not.
* If the Smoke testing fails on the build then we’ll reject the build & give it back to the development team so they make that build stable.
* Once the smoke testing passed on the stable build then we’ll perform more in depth testing using different types & techniques of testing to find bugs.
* We’ll use multiple test resources to test the web app on multiple supported testing environments concurrently.
* During the testing, we will track and report the bugs in the defect tracking tools and send the reports to the development team to fix those bugs.
* We’ll perform the following different types of testing to find every possible bug in the system:

1. Smoke Testing
2. Happy Path Testing
3. Retesting
4. Regression Testing
5. Sanity Testing
6. End to End Testing
7. Functionality Testing
8. UI Testing
9. Ad-hoc Testing

Testing is an iterative process that’s why we’ll repeat the test cycles until the quality of the product is assured/achieved.

**Step 3 - Testing Best Practices:**

We will follow the best practices during the testing phase to make this process more efficient & quality-driven.

1. **Context-Driven Testing:** We will perform the testing according to the context in which the application will be used by identifying its domain & usage in the production environment.
2. **Shift-Left Testing:** We will start the testing from the initial phases of the development of the application to reduce the testing cost in later stages & to find bugs early which will make it possible to deliver the product in the proposed time.

# 10. Defect Reporting Procedure:

While testing the web application:

1. Any test case’s actual result mismatched with the expected result will be declared as failed and will be reported as a bug.
2. Usability issues/observations will be reported accordingly.
3. After the bug discovery we will retest that bug to check its reproducibility & screenshots will be taken and attached with the defect report for the ease of development team in the bug fixing process.
4. Every day at the end of the test execution, all the defects encountered will be properly documented & reported to the development team.
5. All the test scenarios, test cases & defects will be documented in Microsoft Excel sheets.

# 11. Entry & Exit Criteria of STLC Phases:

|  |  |  |
| --- | --- | --- |
| STLC Phase | Entry Criteria | Exit Criteria |
| Requirements Analysis | Availability of SRS/FRS documents | List of requirements are analyzed & understood by the QA team |
| Test Planning | Requirements derived from SRS/FRS have been analyzed & doubts are cleared | Test Plan & Test Efforts Estimation documents are ready |
| Test Case Design | SRS/FRS documents, Test Plan documents are ready | Test Scenarios, Test Data, Test Cases are ready |
| Test Environment Setup | Test Plan, Test Data & Test Cases are ready | Test Environment is ready |
| Test Execution | Test Data, Test Scenarios, Test Cases are available & Test Environment has been setup for testing the app | Test Reports, Bug Reports & RTM has been prepared |
| Test Closure | Test Case Execution Reports, Bug Reports, RTM has been documented | Test Closure Report has been prepared |

# 12. Test Completion Criteria:

* All encountered defects during the testing phase must be fixed & validated.
* All the test cases must be executed & passed.
* All the test deliverables must be completed & delivered.

# 13. Risks & Mitigations:

|  |  |
| --- | --- |
| Risks | Mitigations |
| Non-availability of resources | Plan for backup resources |
| Problem with build URL (URL not working) | Resources will be utilized for other tasks |

# 14. Approvals:

Following documents needs to be approved by the client:

* Test Plan
* Test Scenarios
* Test Cases
* Test Reports
* Bug Reports
* Test Closure Report

# 15. Test Deliverables:

Following are the test deliverables that must be delivered at the end of the STLC phases.

* Test Plan
* Test Cases
* Requirements Traceability Matrix (RTM)
* Test Reports
* Defect Reports
* Test Summary Report
* Test Closure Report