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| Test Plan Documentation -for  OpenCart (Frontend) |

**DOCUMENT VERSION <04>**

**November-07**

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# Overview

The purpose of this document is to outline the test plan for the frontend of the OpenCart Demo, ensuring the verification of its functionalities against the provided Functional Requirements Specification.

## Scope

The testing scope includes the frontend functionalities of the OpenCart Demo, covering areas such as registration, login, product display, cart management, checkout, and other user interface elements.

## Inclusions

## The following functionalities will be tested:

* Register
* Login & Logout
* Forgot Password
* Search
* Product Compare
* Product Display Page
* Add to Cart
* Wish List
* Home Page
* My Account Page
* Change Password
* Order History Page
* Product Returns
* Downloads Page
* Contact Us Page
* Footer Options

## Test Environment

Testing will be conducted on the following environments:

* Windows 10 – Chrome, Firefox, Edge
  1. **Exclusions**

The following are excluded from this testing:

* Backend functionalities
* Third-party integrations
* Test automation

1. **Test Strategy**

For the OpenCart Demo Frontend, the testing approach will primarily focus on Functional Testing to ensure the robustness and reliability of the system. The following steps will be undertaken in this testing strategy:

**Step #1 – Test Scenario and Test Case Creation:**

* I will meticulously create Test Scenarios and Test Cases for each feature identified in the Scope section.
* Test Designing Techniques such as Equivalence Class Partition, Boundary Value Analysis, Decision Table Testing, State Transition Testing, and Use Case Testing will be employed to enhance test coverage.
* Test Cases will be crafted using a combination of systematic methods and the testing expertise, including Error Guessing and Exploratory Testing.
* Prioritization of Test Cases will be performed to optimize testing efforts.

**Step #2 – Testing Process:**

* A preliminary Smoke Testing phase will be executed to verify the functionality of critical features. If the Smoke Testing fails, the build will be rejected, and testing will resume upon receiving a stable build.
* In-depth testing will commence once a stable build, passing Smoke Testing, is available. Multiple Test Resources will perform simultaneous testing on various supported environments.
* Bugs and defects identified during testing will be diligently reported through the bug tracking tool, accompanied by end-of-day status emails to the development management.
* A comprehensive set of testing types will be conducted, including Smoke Testing, Sanity Testing, Regression Testing, Retesting, Usability Testing, Functionality Testing, and UI Testing.
* Test cycles will be repeated iteratively until the desired level of product quality is achieved.

**Step #3 – Best Practices:**

* Context-Driven Testing will be applied, ensuring testing aligns with the specific context of the OpenCart application.
* Shift Left Testing will be adopted, initiating testing activities in the early stages of development rather than waiting for a stable build.
* Exploratory Testing will be conducted by leveraging testing expertise, providing an additional layer of coverage beyond scripted test cases.
* End-to-End Flow Testing will be employed to simulate and validate complex end-user scenarios involving multiple functionalities.

This comprehensive test strategy aims to ensure thorough testing of the OpenCart Demo Frontend, incorporating a combination of systematic testing techniques and exploratory approaches to deliver a high-quality product.

1. **Defect Reporting Procedure:**

**During Test Execution:**

* Any deviation from the expected behavior by the application will be diligently noted.
* If a deviation cannot be directly reported as a defect, it will be documented as an observation, issue, or presented as a question for further clarification.
* Usability issues, if identified, will be reported systematically.

**Defect Discovery and Verification:**

* Upon discovering a defect, a retesting process will be initiated to verify the reproducibility of the identified issue.
* Screenshots capturing the defect, along with detailed steps to reproduce it, will be meticulously documented for clarity and precision.

**End-of-Day Reporting:**

* At the conclusion of each testing day, a comprehensive report summarizing all encountered defects will be compiled.
* This report will include not only identified defects but also observations made during testing.

**Documentation:**

* Defects will be meticulously documented in an Excel sheet for organized tracking and management.
* Test scenarios and test cases will be systematically recorded in a separate Excel document, ensuring transparency and accessibility.

1. **Roles/Responsibilities:**

|  |  |
| --- | --- |
| Roles | Responsibilities |
| Test Manager | Escalations. |
| Test Lead | Test plan creation, execution, defect reporting, coordination. |
| Senior Test Engineer and Test Engineer | Interaction with the application, test case execution, defect reporting. |

1. **Test Schedule:**

|  |  |
| --- | --- |
| Task | Time Duration |
| Creating Test Plan | 25 Aug- 07 Nov |
| Test Case Creation | 07 Nov – 15 Nov |
| Test Case Execution | 15 Nov- 17 Nov |
| Summary Reports Submission | 25 Nov |

1. **Test Deliverables:**

The following are to be delivered to the client:

|  |  |  |
| --- | --- | --- |
| Deliverables | Description | Target Completion Date |
| Test Plan | Details on the scope of the Project, test strategy, test schedule, resource requirements, test deliverables and schedule | 07-11-2023 |
| Functional Test Cases | Test Cases created for the scope defined | 17-11-2023 |
| Defect Reports | Detailed description of the defects identified along with screenshots and steps to reproduce on a daily basis. | Not Applicable |
| Summary Reports | Summary Reports – Bugs by Bug#, Bugs by Functional Area and Bugs by Priority | 25-11-2023 |

1. **Pricing**

Not Applicable.

1. **Entry & Exit Criteria**
2. **Test Plan Entry Criteria:**

* Testable Requirements: Test planning begins once the testing team receives the Requirements Documents or project details, and the requirements are deemed testable.
* Clearance of Doubts: Any doubts regarding the requirements are clarified before proceeding with test planning.

1. **Test Plan Exit Criteria:**

* Requirements Exploration: The testing team thoroughly explores and understands all requirements.
* Doubt Clearance: All doubts related to the requirements are addressed and resolved.
* Client Sign-off: The Test Plan document, encompassing the Test Strategy, is signed off by the client.

1. **Test Execution Entry Criteria:**

* Signed-off Test Scenarios and Test Cases: Test execution begins when the Test Scenarios and Test Cases Documents are signed off by the client.
* Application Readiness: The application is ready for testing, with all necessary components and environments in place.

1. **Test Execution Exit Criteria:**

* Ready Test Case Reports and Defect Reports: Completion of test execution requires that Test Case Reports and Defect Reports are ready.

1. **Test Closure Entry Criteria:**

* Ready Test Case Reports and Defect Reports: Test closure commences when Test Case Reports and Defect Reports are finalized.

1. **Test Closure Exit Criteria:**

* Test Summary Reports: The Test Summary Reports, summarizing the testing process and outcomes, mark the completion of the test closure phase.

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1. **Suspension and Resumption Criteria**

Project suspension and resumption based on client decision and resource adjustments.

1. **Tools**

* Snipping Screenshot Tool
* Word and Excel documents

1. **Risks and Mitigations**

The following are the list of risks possible and the ways to mitigate them:

Risk: Non-Availability of a Resource

Mitigation: Backup Resource Planning

Risk: Build URL is not working

Mitigation: Resources work on other tasks

Risk: Less time for Testing

Mitigation: Dynamic resource ramp-up based on client needs

1. **Approvals**

Client approval required for various documents:

* Test Plan,
* Test Scenarios,
* Test Cases,
* Reports.

Testing will only continue to the next steps once these approvals are done.