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**Test Plan Document**

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**Introduction**

The purpose of this test plan is to outline the testing strategy and activities for the [Open Cart] e-commerce website based on the OpenCart platform.

This document aims to guide the testing team in identifying and addressing potential issues, ensuring that the online store meets user requirements, functions as intended, and complies with industry standards. Through a structured testing approach, the objective is to guarantee a reliable, secure, and user-friendly experience for customers interacting with the OpenCart-based e-commerce platform.

**Test Items**

E – commerce Application – OpenCart

**Features to be Tested**

User Registration and Authentication:

* Verify user registration.
* Test login/logout.
* Validate password recovery.

Homepage:

* Test featured product display.
* Validate responsive design.
* Confirm accuracy of promotional banners and links.

Menu Options:

* Test navigation through menu options.
* Confirm accuracy of links and submenus.

Shopping Cart Functionality:

* Test adding/removing items.
* Validate quantity edits.
* Confirm total price calculation.

Checkout Process:

* Test address entry.
* Validate payment methods.
* Confirm order confirmation.

User Account Management:

* Verify profile creation/editing.
* Test password management.
* Validate order history/tracking.

Search and Navigation:

* Test search functionality.
* Validate filters/sorting.

Product Reviews and Ratings:

* Test leaving reviews/ratings.
* Validate review moderation.

Responsive Design:

* Test responsiveness.
* Validate cross-browser compatibility.

**Features not to be Tested**

* Payment Gateway will be Tested

**Test Environment**

* Operating System: windows 11
* Browser: Google chrome

**Tools**

* Bug tracking tool : Jira
* Documentation : Word and excel
* Automation Tool : Selenium WebDriver
* BDD cucumber framework
* Version control : GitHub
* Testing Framework: TestNG

**Test Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Phase | Weeks/Date | Tasks |
| 1 | Planning and Setup |  |  |
| a. | Define Test Objectives and Scope | 1-2 | Identify features and functionalities to be automated. |
| b. | Tool Selection and Setup | 3-4 | Research and select appropriate automation tools. Set up the chosen automation framework. |
|  |  |  |  |
| 2 | Test Script Development |  |  |
| a. | Design Test Cases | 5-8 | Analyze manual test cases and identify scenarios for automation. |
| b. | Script Development | 9-12 | Write and review automated test scripts. Implement reusable functions and libraries. |
|  |  |  |  |
| 3 | Test Data Preparation |  |  |
| a | Identify Test Data Requirements | 13-14 | Define test data requirements for automated test cases. |
| b | Test Data Setup | 15-16 | Prepare necessary test data for automated tests. |
|  |  |  |  |
| 4 | Environment Setup |  |  |
| a | Define Test Environments | 17-18 | Identify the target environments (browsers, devices, configurations). |
| b | Set up Environments | 19-22 | Set up the required test environments. |
|  |  |  |  |
| 5 | Test Execution |  |  |
| a | Initial Test Execution | 23-26 | Execute automated test scripts on a small scale. |
| b | Full-scale Test Execution | 27-30 | Execute the complete suite of automated tests. Monitor and analyze test results. |
|  |  |  |  |
| 6 | Defect Reporting and Regression Testing |  |  |
| a | Defect Reporting | 31-32 | Report and prioritize defects found during automated testing. |
| b | Regression Testing | 33-34 | Execute regression tests to ensure application stability. |
|  |  |  |  |
| 7 | Documentation and Reporting |  |  |
| a | Documentation | 35-36 | Update test documentation, including test scripts and test data. |
| b | Test Summary and Reporting | Ongoing | Prepare a summary report of automated testing results. Present findings and recommendations. |
|  |  |  |  |
| 8 | Review and Maintenance |  |  |
| a | Review and Feedback | 37-38 | Collect feedback from the team and stakeholders. |
| b | Maintenance and Updates | Ongoing | Continuously update and maintain automated test scripts. Incorporate changes in the application and update test cases. |

**Test Responsibilities**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Name | Role | Responsibilities |
| 1 | Miss. Aparna | Test Manager | * Test Strategy and Planning * Resource Management * Risk Management * Communicate with stakeholders * Test Environment Management * Tool Selection and Implementation * Quality Assurance * Budget Management |
| 2 | Miss. Aparna | Test Lead | * Test Planning * Test Execution * Team Coordination * Defect Management * Test Automation * Test Documentation |
| 3 | Miss. Aparna | Senior Test Engineer | * Test Design and Execution * Test Planning Assistance * Defect Analysis * Mentoring and Training * Test Environment Setup * Continuous Improvement |
| 4 | Miss. Aparna | Test Engineer | * Test Case Execution * Defect Reporting * Test Data Setup * Collaboration * Documentation |

**Test Approach/Strategy**

BDD Cucumber framework will be used to test all features of Open Cart Application.

As a part of functional testing following approach will be followed.

Step 1

* We will develop high-level test scenarios based on anticipated user interactions and system functionalities. We will prioritize scenarios based on predicted business impact and criticality.
* We will create detailed test cases for each test scenario, outlining input data, expected results, and preconditions. We will include both positive and negative test cases for comprehensive future coverage.
* We will utilize a mix of test design techniques to ensure diverse coverage.
  + Equivalence Partitioning: Test different payment methods (valid and invalid).
  + Boundary Value Analysis: Check the application's behavior with minimum and maximum order quantities.
  + Pair Testing: Collaborate with another tester to explore scenarios.

Step 2

* Once we get the build for testing, we will perform smoke testing.
* If smoke testing fails then we will reject the bill and wait for stable build.
* When we receive the stable build then we will perform below types of testing
  + Smoke Testing
  + Unit Testing
  + Integration Testing
  + System Testing
  + Acceptance Testing
  + Regression Testing
  + Alpha Testing
  + Beta Testing
  + Sanity Testing
* We then report the bug in Jira and sent to the development team for fixes.
* We repeat the test cycles until we get the quality product.

**Defect Reporting Procedures**

* When tester identify the defect during test execution then tester will document detailed information of each identical defect, including title/ summery , screenshot with steps to reproduce, environment details, severity level, and priority.
* Every day, at the end of test execution, defect encountered will be sent along with the observations.
* Defects will be documented in Jira.

**Test completion criteria**

* A high percentage of planned test cases should be executed.
* All critical and high-priority requirements must be covered in testing.
* The test environment should be stable and available for testing.
* All the identified defects must be fixed and verified.
* Test results and test documentation should be reviewed and approved by stakeholders.
* The test summary report should be generated and distributed.