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**Test Plan For**

**NopCommerce Automation**

**Prepared By:** Shivam Shivhare

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**Table of Contents**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Content** | | **Page No.** |
| 1. | Introduction | | 2 |
| 2. | Test Objectives | | 2 |
| 3. | Scope | | 2 |
|  | 3.1 | In Scope | 2 |
|  | 3.2 | Out of scope | 2 |
| 4. | Test Methodology (Agile Model) | | 4 |
|  | 4.1 | Methodology Overview | 4 |
|  | 4.2 | Test Levels | 4 |
|  | 4.3 | Bug Triage | 4 |
|  | 4.4 | Suspension Criteria & Resumption Requirements | 4 |
|  | 4.5 | Test Completeness | 5 |
| 5. | Automation Strategy | | 5 |
| 6. | Assumptions | | 5 |
| 7. | Risks & Mitigation | | 6 |
| 8. | Roles & Responsibilities | | 6 |
| 9. | Sprint Planning | | 6 |
| 10. | Test Scenarios | | 7 |
| 11. | Defect Management | | 8 |
| 12. | Test Environment | | 8 |
| 13. | Entry & Exit Criteria | | 8 |
|  | 13.1 | Entry Criteria | 8 |
|  | 13.2 | Exit Criteria | 8 |
| 14. | Test Data | | 9 |
| 15. | Test Deliverables | | 9 |
| 16. | Terms & Acronyms | | 9 |

**1. Introduction**

This test plan outlines the strategy and approach to test the functionalities and user experience of the nopCommerce Admin Portal, which provides administrative management of customers, products, orders, and reports. The document covers the scope of testing, objectives, test approach, and roles involved in the testing process to ensure a high-quality, and efficient admin portal for managing the e-commerce platform.

**2. Test Objectives**

* Validate core functionalities like login, dashboard navigation, customer, product, and order management.
* Detect and report defects early in each sprint.
* Ensure existing functionalities are stable through regression testing.
* Support automated and manual testing to improve efficiency.
* Use Jira for task tracking, defect management, and reporting.

**3. Scope**

The scope of this test plan includes the functional, UI, and usability aspects of the nopCommerce Admin Portal, focusing on key modules such as admin login, dashboard access, customer and product management, order processing, and reporting.

**3.1 In Scope**

* User registration testing with valid, invalid, and empty inputs
* Login & logout validation for correct and incorrect credentials
* Dashboard access verification, including menus and account info
* Module navigation across NopCommerce and Electronics sections
* Product browsing & selection in Cell Phones category
* Shopping cart operations: add to cart, quantity, product details, shipping address

**3.2 Out of Scope**

* Front-end website testing
* Performance, load, or stress testing
* Mobile or cross-browser testing beyond the latest Chrome version
* Third-party integrations do not part of the admin portal

**4. Test Methodology (Agile Model)**

**4.1 Methodology Overview:**

The Agile methodology is chosen for this project as it supports iterative testing, continuous feedback, and close collaboration between testers and developers. It allows the team to adapt quickly to requirement changes while ensuring quality and timely delivery. The testing approach includes:

* Manual testing for new features and UI validation
* Automation for regression testing using Selenium and TestNG
* Logging and tracking defects in Jira with clear priority and severity levels

**4.2 Test Levels**

Testing will be performed at different levels:

* **Unit Testing** **–** Performed by developers to validate individual code modules.
* **Integration Testing –** Ensures smooth interaction between modules such as Customers, Orders, and Products.
* **System Testing –** End-to-end testing of the nopCommerce Admin Portal workflows.
* **Regression Testing –** Conducted after each sprint to ensure updates do not break existing functionality.
* **Functional & UI Testing-** Validate feature behaviour and interface

**4.3 Bug Triage**

Bugs identified during testing will be:

* Prioritized based on severity and impact.
* Discussed in triage meetings during each sprint.
* Scheduled for fixes according to priority and availability of resources.

**4.4 Suspension Criteria and Resumption Requirements**

Testing may be paused if:

* Critical functionalities like login, dashboard, or order processing are broken.
* The test environment is unstable.
* The build fails repeatedly.

Testing will resume when:

* Blocking issues are resolved.
* A stable build is available.
* Required test data and environment access are restored.

**4.5 Test Completeness**

Testing will be considered complete when:

* All acceptance criteria for the admin portal are met.
* All planned test cases have been executed.
* No critical or high-severity bugs remain open.
* Automation scripts execute successfully for regression testing.

**5. Automation Strategy**

* **Scope:** Automate critical regression scenarios first (login, dashboard, customer CRUD, product CRUD).
* **Tool:** Selenium WebDriver with TestNG framework.
* **Execution:** Scheduled after each sprint for regression.
* **Reporting:** Automated TestNG HTML reports; Jira defects created for failures.
* **Maintenance:** Scripts updated as features evolve.

**6. Assumptions**

* The nopCommerce Admin Portal will be available and stable throughout the testing period.
* Test data for customers, products, and orders will be prepared or provided in advance.
* Login credentials and user roles will remain unchanged during testing.
* Testing will be performed on Windows OS using the latest version of Chrome.
* Required access to Jira, test environments, and any supporting tools will be provided to the QA team.

**7. Risks & Mitigation**

|  |  |  |
| --- | --- | --- |
| **Risk** | **Impact** | **Mitigation** |
| Environment downtime | Testing blocked | Notify dev team immediately reschedule tests once environment is back. |
| Missing or incorrect test data | Test case failure | Prepare test data in advance and validate before execution. |
| Build issues or unstable build | Delays in testing | Track issues in Jira; only test on stable builds. |
| Tool or software failures | Test execution halted | Keep backup tools ready; maintain proper updates. |

**8. Roles & Responsibilities**

|  |  |
| --- | --- |
| **Roles** | **Responsibility** |
| **Product Owner** | Prioritize features, approve test coverage and validate business logic. |
| **Test Manager** | Define test strategy, timelines, assign tasks, and monitor overall test progress. |
| **QA Engineer** | Design test cases, execute tests, log defects |
| **Automation Team** | Develop and maintain automation scripts for regression and functional testing. |
| **Development Team** | Fix defects reported by the QA team, support testing. |
| **Scrum Master** | Sprint planning, coordination, reporting. |

**9. Sprint Planning**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sprints** | **Scope/Features** | **Test Coverage** | **Duration** | **Tester/Team** |
| **Sprint 1** | User Registration (FR-1.1, FR-1.2) | Positive & negative test cases for registration | 1 Day | QA Team |
| **Sprint 2** | User Login (FR-2.1 to FR-2.4) | Valid login, invalid login, empty fields | 1 Day | QA Team |
| **Sprint 3** | NopCommerce Submodules & Electronics (FR-3.1, FR-4.1, FR-4.2) | Navigation and visibility tests | 1 Day | QA Team |
| **Sprint 4** | Cell Phones Section (FR-5.1 to FR-5.3) | |  | | --- | | Navigation, product availability & selection |  |  | | --- | |  | | 1 Day | QA Team |
| **Sprint 5** | Add to Cart (FR-6.1 to FR-6.4) | Description, price check, shipping address, quantity & add to cart | 1 Day | QA Team |
| **Sprint 6** | Checkout Process (FR-7.1 to FR-7.2) | Address selection, shipping method, order summary | 1 Day | QA Team |
| **Sprint 7** | Payment & Order Confirmation (FR-8.1 to FR-8.3) | Payment gateway, order success message, order history | 1 Day | QA Team |

**10. Test Scenarios**

|  |  |
| --- | --- |
| **Scenario ID** | **Test Scenario Description** |
| **TS01** | Verify that a new user can successfully register with valid details. |
| **TS02** | Verify registration fails when mandatory fields are left blank. |
| **TS03** | Verify user can log in with valid credentials. |
| **TS04** | Verify login fails with empty fields and shows appropriate error message. |
| **TS05** | Verify login fails with invalid credentials and shows appropriate error message. |
| **TS06** | Verify “My Account” page is displayed after successful login. |
| **TS07** | Verify that all NopCommerce submodules are visible in the navigation menu. |
| **TS08** | Verify that the Electronics category is displayed and clickable. |
| **TS09** | Verify that Electronics submodules are displayed when the category is expanded. |
| **TS10** | Verify user can navigate to the Cell Phones page from Electronics. |
| **TS11** | Verify correct page title and URL are displayed on the Cell Phones page. |
| **TS12** | Verify that available cell phones are displayed on the Cell Phones page. |
| **TS13** | Verify that a user can select a required cell phone from the product list. |
| **TS14** | Verify that product description of the selected cell phone is displayed correctly. |
| **TS15** | Verify that the price of the selected phone is displayed correctly. |
| **TS16** | Verify that user can set shipping address before adding product to cart. |
| **TS17** | Verify that user can set product quantity and add it to the cart. |
| **TS18** | Verify that user can proceed to checkout from the cart. |
| **TS19** | Verify that user can select a shipping method successfully. |
| **TS20** | Verify that the order summary is displayed correctly before payment. |
| **TS21** | Verify that user can complete payment using valid payment details. |
| **TS22** | Verify that order confirmation message is displayed after payment. |
| **TS23** | Verify that the placed order is visible in order history. |

**11. Defect Management**

* Defects logged in Jira with title, description, steps, severity, and priority
* Status workflow: New → In Progress → Resolved → Retest → Closed
* Critical issues prioritized for immediate fix

**12. Test Environment & Tools**

* **OS:** Windows 10/11
* **Browsers:** Chrome, Edge, Firefox
* **Tools:** Jira (Defect & Task Tracking), Selenium + TestNG (Automation), TestNG Reports
* **Database:** MS Excel Sheet

**13. Entry & Exit Criteria**

**13.1 Entry Criteria:**

* A stable build of the nopCommerce Admin Portal is available in the test environment.
* Test cases are prepared and reviewed.
* Required test data and tool access (Jira, Selenium, TestNG) are ready.

**13.2 Exit Criteria:**

* All planned test cases are executed.
* All critical defects are resolved.
* Test reports are reviewed and signed off by QA Lead or Project Manager.

**14. Test Data**

* Registration will use valid, invalid, and empty user details.
* Login will use valid, invalid, and empty credentials.
* Submodules will use module names and navigation paths.
* Electronics will use available submodule options.
* Cell Phones will use product names and expected page URLs.
* Add to Cart will use product details, quantity, shipping address, and price.
* Billing details, shipping methods, and order summary data.

**15. Test Deliverables**

* Test Plan Document
* Test Scenarios & Test Cases
* Test Execution Reports
* Defect Logs in Jira
* Automation Scripts (if any)
* Sprint Summary Reports

**16. Terms & Acronyms**

|  |  |
| --- | --- |
| **Term/Acronym** | **Definition** |
| QA | Quality Assurance |
| Jira | Task and Defect Tracking Tool |
| Selenium | Web automation tool |
| TestNG | Testing framework for Java |
| AUT | Application Under Test |
| UI | User Interface |