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Magento

Test plan

Project Name	Magento	Test Plan Version	1.0
Product Version	1.0	Test Plan Template Version	1.0

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Table of Content

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1. INTRODUCTION

1.1 Purpose of the test plan document

This document serves as a test plan. It describes the testing approach and automation framework that will test the application.
This document describes:
- Application under test overview
- Testing strategy
- Test management
- Test Risks
- Deliverables

Each section is divided into several subsections that serve to provide more detailed insight into the description and the goals of that section.
This document focuses on the functional testing of the application. Providing details on the strategy and management of performance testing and security testing is not in the scope of this document.

1.2 APPLICATION UNDER TEST OVERVIEW - Magento

The Magento website is an open-source e-commerce platform that has been in use for some time. It is widely known for its extensibility and flexibility in creating online stores and managing product catalogs. The project's history indicates continuous development and maintenance to meet user needs and adapt to evolving e-commerce standards.

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Requirements for Test

The listing below identifies those items'_ functional requirements _ that have been identified as targets for testing:

Accessing the Magento Website
- The system must be able to access the Magento website at the URL https://magento.softwaretestingboard.com/.
- The website must load successfully without errors.

Filter for a Certain Category (e.g., shirt, tees, hoodie)
- The system must support filtering for a category
- The products displayed should match the selected category.

Opening the Product Page
- The system should enable the user to click on a product within the shirt category.
- The product page should open successfully without any errors.

Adding Multiple Quantities of the Product to the Cart
- The system must allow the user to increase the quantity of the selected product on the product page before adding it to the cart.
- The quantity in the cart should reflect the chosen number of items.

Performing a Checkout
- The system should support the user in completing the checkout process.
- The checkout process must be executed successfully without any critical errors or interruptions.

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2. TESTING STRATEGY

The company utilizes the Behavior-driven Testing approach to ensure that automated testing brings business value. The company will work to identify priorities based on the value they bring. Tools like Cucumber BDD, and Selenium WebDriver will be used to implement the BDD testing approach.

2.1 TEST SCOPE

2.1.1 Functional testing

Functional testing will be performed to verify if the application features are developed according to the specifications. Functional testing will be done manually and using automation. BA will provide the scenarios for functional tests. However, testers also will need to write scenarios for functional tests when required.
Functional testing will be carried out by the functional testing team.

2.1.2. Layers of testing

Functional testing will be conducted on the UI layer of the application, tests can be executed manually or using automation.

2.1.3. Smoke tests

Smoke tests will be developed and executed periodically. Smoke testing will be used to identify the general stability of the application. Testing scenarios for the smoke test will be approved by the BA. Smoke test reports will be emailed to the whole team in case of a failure.

2.1.4. Regression tests

will be carried out after a major code change as well as before certain milestones or after some updates.

2.1.5. Risks and Contingencies

Possible risks include changes in the website's structure or behavior. In such cases, adjustments to test scripts may be required. Contingencies include retesting if any issues are discovered.

2.2 TEST ENVIRONMENT

QA1 environment - Functional testing https://magento.softwaretestingboard.com/

Windows OS environment with Google Chrome version 119 should be available to each tester.

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3. SCHEDULE / Sprint Iteration

Based on the Test Strategy company sets sprint duration and release cycle.

Iteration (or) Build No	Start Date	End Date
Iteration#1(sprint#1) *based on task requirements	11-13-2023	11-15-2023

4. ROLE & RESOURCES

4.1 Tools

The following tools will be employed for this project:

Category	Tool	Version
Test Management	Excel/Jira	7.3.9
Project Management	Excel/Jira	7.3.9
Defect Tracking	Excel/Jira	7.3.9
Test Data Source	IntelliJExcel/Apache POI	
IDE	Idea	2023.2.5
Programming Language	Java	11
Dependencies		
	org.seleniumhq.selenium / selenium-java	4.11.0
	io.github.bonigarcia / webdrivermanager	5.5.2
	io.cucumber / cucumber-junit	7.3.0
	io.cucumber/cucumber-java	7.3.0
	me.jvt.cucumber / reporting-plugin	7.3.0
	org.apache.poi / poi-ooxml	5.2.3
	maven-surefire-plugin	3.0.0-M5

4.2 Project Management

Project Manager: reviews the content of the Test Plan, Test Strategy, and Test Estimates and signs off on it.

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4.3 Test Lead

- Ensure entrance criteria are used as input before starting the execution.
- Develop test plans and guidelines to create test conditions, test cases, and expected results, and execute scripts.
- Provide guidelines on how to manage defects. Attend status meetings in person or via the conference call line.
- Communicate to the test team any changes that need to be made to the test deliverables or application and when they will be completed.
- Provide on-premise or telecommute support.

4.4 Test Team

- Develop test conditions, test cases, expected results, and execute scripts.
- Perform execution and validation.
- Identify, document, and prioritize defects according to the guidance provided by the Test lead.
- Re-test after software modifications have been made according to the schedule.
- Prepare testing metrics and provide regular status.

The current task structure of the team involves one person responsible for carrying out the duties described above within the specified time frames assigned by the task.

5 . RISKS & MITIGATION:

Risk	Mitigation
Incomplete Requirements	Actively participate in requirement-gathering sessions, collaborate closely with stakeholders, and document test scenarios based on available information. Regularly update test cases as requirements evolve.
Communication Breakdown	Implement regular status meetings, use collaboration tools and maintain open communication channels to ensure everyone is on the same page. Foster a collaborative environment.
Resource not enough, schedule	Team structure calculated based on Velocity. Holiday and vacation estimation is included in the original schedule.
Hardware failure during testing	Maintain backup inventory of hardware resources.
Too many bugs to handle	Defect management plan (refer to the Test Strategy provided by Heartland) is in place to ensure prompt communication and fixing of issues.
Unstable Test Environment	Regularly communicate with the development team to ensure the stability of the test environment. Implement automated environment health checks before each test cycle.
Testing Tool Issues	Regularly update testing tools, provide training to the testing team, and have contingency plans in case a tool becomes unusable. Consider open communication channels with tool vendors for support.

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Regression Test Suite Maintenance	Implement a robust regression testing strategy, automate repetitive and critical test cases, and regularly review and update the regression suite based on changes in the application.
Dependency on Third-Party Systems:	Establish early communication with third-party vendors, conduct integration testing as early as possible, and implement mock services or simulate third-party system behavior in a controlled environment.

6. DELIVERABLES

Deliverable (if applicable)	Description
Test Plan Document	Comprehensive document outlining the test strategy, scope, resources, schedule, and test approach.
Test Cases	Detailed test cases specifying inputs, expected outcomes, and execution steps.
Test Data	Necessary data is required to execute the test cases.
Test Environment Setup	Instructions for setting up the test environment.
Test Scripts	Automated scripts for test execution.
Test Execution Logs	Records of test execution activities, including date, time, tester, and outcomes.
Test Summary Report	Summary of the test execution results and key findings.
Traceability Matrix	Matrix mapping requirements to test cases to ensure test coverage.
Defect Reports	Documentation of any defects found during testing, including details and status.
Test Sign-off	Formal acknowledgment that testing is complete and meets the exit criteria.

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7. APPROVALS

The undersigned acknowledge they have reviewed THE TEST PLAN document and agree with the approach it presents. Any changes to this Requirements Definition will be coordinated with and approved by the undersigned or their designated representatives.

Signature:
Date:
Print Name:
Title:
Role:

Signature:
Date:
Print Name:
Title:
Role:

Signature:
Date:
Print Name:
Title:
Role:

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NOTES FOR RETRO-MEETING

Provide choices for a user who is logged in.
Allow the user to augment the quantity of a product in the cart after adding a single item initially.
Allow the user to increase/decrease the quantity of products in the cart after initially adding multiple different items.

ETC