**Test Plan for Amazon**

**1.Test Plan Identifier:** **TP\_2025\_Amazon**

**2. Introduction:**

This document discriminates the scope, approach, resources and schedule of testing activities for the Amazon E-Commerce Website. The aim of this test plan is to make sure the website meets the quality, security, usability and performance. This test plan will make sure the key functionalities perform correctly and meet user expectations as well.

**3. Test Items:**

The crucial components to be examined within the Amazon E-Commerce Website are as follows:

* **Homepage and Navigation:** UI elements for browsing products and categories.
* **Search Bar:** Products are searched with filter options.
* **User Registration & Login:** Account creation (by user registration), login process, password recovery and profile.
* **Add to Cart:** Functionality of adding products to the cart.
* **Product Details:** It shows the information of the product including images, pricing and reviews of the other users.
* **Product Reviews and Ratings:** Users provide their reviews and ratings for all of the products.
* **Payment:** Payment options, order confirmation and transaction process.

**4. Features to Be Tested:**

* **User Registration and Login:** Ensure the registration page, login page and password recovery.
* **Search and Filter:** Verifying product search abilities as well as filter options.
* **Add to Cart:** Testing the cart functionality as well as adding or removing items.
* **Product Details:** Confirm the validity of product information.
* **Process of Payment System:** Validating various payment methods such as credit card, debit card etc.
* **Confirmation of Order:** Ensure the correct order of confirmation messages.
* **Performance Testing:** Conducting load testing to ensure optimal website performance under high traffic conditions.
* **Security Testing:** Validating the security of user data, login credentials, and payment transactions.
* **Accessibility Testing:** Ensuring compliance with accessibility standards for users with disabilities.

**5. Features Not to Be Tested:**

* **Payment through EMI:** Not within the scope of this test cycle.
* **Third-party Integrations:** External plugins and integrations that do not directly affect the core functionality of the website.

**6. Testing Approach:**

The testing will be conducted using both manual and automated methods:

* **Manual Testing:** Focused on functional testing of User Interface elements, user flows, and cross-browser or device compatibility.
* **Automated Testing:** Utilized for regression testing and performance load tests, using tools such as Selenium for functional tests and LoadRunner for performance tests.
* **Security Testing:** Conducted using tools like OWASP ZAP and Burp Suite to identify vulnerabilities.
* **Performance Testing:** Utilizing load testing tools to simulate various traffic volumes and analyze website behavior under load.

**7. Pass/Fail Criteria:**

* **Pass Criteria:** A test passes when the actual result matches with the expected result without any errors.

1. Most of the cases are run successfully without any issues.
2. Functional requirements are met without crucial defects.
3. All user interface elements like buttons, links, forms perform as expected.

* **Fail Criteria:** A test fails if there is a mismatch between the actual and expected outcomes or if the feature does not function as intended.

1. Major functionality failures, such as the inability to register, log in or process orders.
2. Critical bugs are not fixed within the testing period.
3. Performance issues such as long load times or site crashes under high traffic.

**8. Suspension Criteria:**

Testing will be suspended if:

* Test environments are unstable or out of reach.
* Critical third-party integrations are non-functional.
* Critical blocking issues are identified that prevent further testing for example site crashes, major functionality failure.

**9. Test Deliverables:**

* **Test Plan:** This document outlining the testing strategy, scope, and approach.
* **Test Cases:** Detailed test cases covering all of the identified features.
* **Bug Reports:** Detailed report of defects or issues with their impact on the system.
* **User Guide:** Detailed instructions on how end-users should navigate and use the site.
* **Release Notes:** Information on the final state of the release, including new features, fixes, and known issues.

**10. Testing Tasks:**

* **Test Case Development:** Design and document test cases based on the requirements.
* **Test Execution:** Conduct tests across various browsers and devices.
* **Regression Testing:** Re-test after defects are fixed to ensure no new issues are found.
* **Performance & Load Testing:** Simulate user traffic to validate the site's capacity under peak conditions.
* **Bug Reporting:** Document and report any identified defects to the development team for resolution.

**11. Environmental Needs:**

* **Devices:** Android and iOS for mobile and windows 10/11, macOS for desktop.
* **Browsers:** Chrome, Firefox, Edge etc.
* **Tools:**  Postman for API testing, Selenium for functional automation, LoadRunner for performance testing, JIRA for bug tracking.

**12. Responsibilities:**

* **Test Manager:** Responsible for overseeing the testing process, ensuring proper resource allocation, and tracking progress.
* **Test Engineers:** Write, execute and report on test cases, including defect identification and reporting.
* **Developers:** Fix defects found during testing, provide necessary support for environment setup.
* **Business Analysts:** Ensure all business requirements are covered and review test cases for completeness.

**13. Training Needs:**

* **Test Tool Training:** Ensure that testers are skilled with tools like Selenium, Jira, Clickup, Postman, LoadRunner etc.
* **Performance Testing Training:** Training on performance testing tools and techniques to simulate and evaluate heavy traffic conditions.

**14. Schedule:**

* **Test Planning:** January 31, 2025 – February 10, 2025
* **Test Case Development:** February 11, 2025 – February 20, 2025
* **Test Execution:** February 21, 2025 – February 28, 2025
* **Bug Fixing:** March 1, 2025 – March 3, 2025
* **Regression Testing:** March 4, 2025- March 5, 2025
* **Final Testing & Report:** March 6, 2025 – March 10, 2025

**15. Risk & Contingencies:**

* **Risk:**

1. Delays in development could result in delayed testing.
2. Test environment instability could hinder testing progress.
3. Limited access to test data (e.g., payment gateway sandbox) could impact testing.

* **Contingency:**
  1. Close communication with the development team to address delays promptly.
  2. Ensure alternate environments are available for testing, if necessary.
  3. Prioritize the testing of core functionalities to ensure critical issues are caught early.

**16. Test Plan Approvals:**

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* **Stakeholders:** Bug Resistance Ltd.