**Test Plan for Amazon Project**

1. **Test Plan ID: AMZ\_ST\_TP\_001**
2. **Introduction:**
   * This is the System Test Plan for the Amazon e-commerce platform, a globally recognized online retail website offering a diverse range of products.
   * The application includes key features such as user authentication (Login), product search (ValidateSearchItem), shopping cart management (AddtoCart), and wishlist functionality (AddtoWishlist).
3. **Test Items:**
   * Login
   * ValidateSearchItem
   * AddtoCart
   * AddtoWishlist
4. **References:**
   * Requirements
   * Project Plan
   * Test Strategy
   * Use Cases (if available)
   * High-Level Design Documents
   * Low-Level Design Documents
   * Process Guideline Document
   * Prototypes
5. **Features to Be Tested:**

**a) Login:**

* + Verify successful login with valid credentials:
    - Input valid username and password within the specified character range.
    - Confirm successful user login.
  + Verify unsuccessful login with invalid credentials:
    - Input invalid username and password combinations outside the valid range.
    - Confirm appropriate error messages and prevention of unauthorized access.
  + Validate forgot password functionality:
    - Click on the "Forgot Password" link.
    - Enter a valid email address within the valid range and verify the initiation of the password reset process.

**b) ValidateSearchItem:**

* + Verify search functionality with valid search terms:
    - Input valid search terms for various product categories within the allowed character range.
    - Confirm the display of relevant search results.
  + Verify no results are displayed for invalid search terms:
    - Input invalid search terms or nonsensical characters outside the valid range.
    - Confirm the absence of matching results.
  + Validate advanced search options:
    - Use advanced search options such as filters and sorting within the valid range.
    - Confirm refined results based on the selected criteria.

**c) AddtoCart:**

* + Add items to the cart:
    - Select items and add them to the cart.
    - Confirm the appearance of items in the cart with correct details.
  + Verify the correct quantity and pricing in the cart:
    - Adjust the quantity of items in the cart within the specified limits.
    - Confirm the correct calculation of the total price.
  + Remove items from the cart:
    - Remove items from the cart.
    - Confirm the successful removal of items and the updated cart.

**d) AddtoWishlist:**

* + Add items to the wishlist:
    - Select items and add them to the wishlist.
    - Confirm the appearance of items in the wishlist.
  + Verify the presence of added items in the wishlist:
    - Access the wishlist and confirm the display of added items.
  + Remove items from the wishlist:
    - Remove items from the wishlist.
    - Confirm the successful removal of items and the updated wishlist.

1. **Features Not to Be Tested:** NA
2. **Approach:**
   * **Testing Techniques:**
     + **Boundary Value Analysis:**
       - For Login, test with boundary values for the minimum and maximum allowed characters in the username and password fields.
       - For AddtoCart, validate the system's behavior with the minimum and maximum quantity limits.
     + **Equivalence Class Partitioning:**
       - For Login, test with valid and invalid equivalence classes of usernames and passwords.
       - For ValidateSearchItem, test with valid and invalid equivalence classes of search terms.
     + **Random Testing:**
       - Perform random inputs for search terms, quantities in the cart, and wishlist items within the specified range.
       - Verify the system's response to unexpected inputs.
     + **Regression Testing with Values:**
       - Re-run test cases with previous inputs within the valid range to ensure that new changes do not introduce defects.
   * Use automated testing tools (Katalon Studio) for test case execution.
   * Perform positive and negative testing for each feature.
   * Validate user interface elements and backend functionality.
3. **Features Pass/Fail Criteria:**
   * **Login**
     + **Pass Criteria**
       - Enter valid username
       - Enter valid password
     + **Fail Criteria**
       - Enter invalid username
       - Enter invalid password
4. **Suspension Criteria: Nil**
5. **Test Environment:**
   * **Client Side:**
     + Web Browsers
       - Google Chrome - Version 121.0.6167.140
       - Mozilla Firefox Version - Version 122.0
       - Edge Chromium – Version 121.0.2277.106
     + Operating Systems (Windows, macOS)
     + Katalon Studio – Version 7.0 and above
   * **AUT Environment:**

**WebUI**

* + - Support all front-end frameworks: ReactJS, AngularJS, VueJS
    - Cross-browser compatibility: Chrome, Firefox, Safari, Edge

1. **Test Deliverables:**
   * Test Plan
   * Test Case Documents
   * Test Scenario Documents
   * Test Data
   * Opened and Closed Defect Reports
   * Test Summary Report
2. **Test Tasks:**
   * Create and execute test cases using Katalon Studio.
   * Validate test results and report defects.
   * Conduct regression testing after bug fixes.

**13. Entry Criteria:**

a) Test Design:

* + Team formation, Responsibilities,schedule,requirements,test case template
  + Training on domain, on automation tools

b) Test Execution

Readiness of test tab

Readiness of AUT

Requirements

Test case Documents

Test data

Defect Report Template

Etc….

**14. Exit Criteria:**

All possible test cases executed

Maximum defect fixed, final regression performed successfully

Confidence on test process

Time limitations

Budget limitations

1. **Responsibilities:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.NO** | **NAME** | **ROLE** | **RESPONSIBILITIES** | **REMARKS** |
| 1 | Shakti Sharma | Test Lead | Test planning, guidance, Monitoring and test control |  |
| 2 | Shakti Sharma | Sr. Tester | Test data collection, Generating test scenarios |  |
| 3 | Shakti Sharma | Tester | Test case documentation, testexecution, defect reporting and tracking for login module |  |
| 4 | Shakti Sharma | Tester | Test case documentation, testexecution, defect reporting and tracking for amazon application module |  |
| 5 | Shakti Sharma | Tester | Test case documentation, testexecution, defect reporting and tracking for amazon application module |  |
| 6 | Shakti Sharma | Automation Lead | Lead the automation efforts, design automation test scripts, and coordinate with the testing team for execution. |  |
| 7 | Shakti Sharma | Performance Tester | Design and execute performance tests to evaluate the system's responsiveness and scalability. |  |

1. **Schedule**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SNO** | **TASK** | **DAYS** | **DURATION** | **REMARKS** |
| 1 | Understanding and Analyzing requirements | 4 | 4th Jan to 7th Jan |  |
| 2 | Review meeting | 1 | 8th Jan |  |
| 3 | Generating Test scenarios | 3 | 11th Jan to 13th Jan |  |
| 4 | Reviews | 2 | 14th Jan to 15th Jan |  |
| 5 | Test case Documentation | 3 | 17th Jan to 19th Jan |  |
| 6 | Reviews | 2 | 20th Jan to 21th Jan |  |
| 7 | Test data collection | 2 | 22nd Jan to 23rd Jan |  |
| 8 | Reviews | 1 | 24th Jan |  |
| 9 | Verifying Test Environment Setup | 1 | 25th Jan |  |
| 10 | Create Test Batches | 2 | 26th Jan to 27th Jan |  |
| 11 | Sanity Testing | 1 | 28th Jan |  |
| 12 | Comprehensive testing | 2 | 29th Jan to 30th Jan |  |
| 13 | Sanity Testing | 1 | 3rd October |  |
| 14 | Selecting Test Cases | 2 | 4th and 5th October |  |
| 15 | Regressing Testing | 2 | 31st Jan to 1st Feb |  |
| 16 | Sanity Testing | 1 | 2nd Feb |  |
| 17 | Selecting Test Cases | 1 | 3rd Feb |  |
| 18 | Regression Testing cycle -2 | 2 | 4th Feb to 5th Feb |  |
| 19 | . |  |  |  |
| . | . |  |  |  |
| . | . |  |  |  |
| 28 | Final Regression | 8 | 6th Feb |  |
| 29 | Evaluating Exit Criteria | 1 or 2 | 6th Feb |  |
| 30 | Collecting all artifacts | 2 | 6th Feb to 7th Feb |  |
| 31 | Test Summary Report | 1 | 8th Feb |  |

1. **Training (Dec 5 – Jan 5):**
   1. Training program on Amazon application.
   2. Test Automation Training Using Katalon Studio tool.
2. **Risks and Mitigations: Nil**
3. **Approvals:**

|  |  |  |  |
| --- | --- | --- | --- |
| S.No | Task/Document | Author/Role | Date& Signature |
| 1 | TestPlan Documentation | Shakti Sharma (Test Lead) | [Date& Signature] |
| 2 | Review | ShaktiSharma(Quality Analyst) | [Date& Signature] |
| 3 | Approval | ShaktiSharma(Project Manager) | [Date& Signature] |

1. **Glossary:**
   1. AUT: Application Under Test
   2. RTM: Requirements Traceability Matrix
   3. Jira: Bug Tracking Tool