**Test Plan**

Project name: Supermarket Automation

Test engineer’s: Ramya Sri

Date: 28-11-2023

Prepared by: Ramya Sri

Reviewed by: H. Shailaja

**1. Test objective:**

The objective of the test is to find the functionality of “Supermarket Automation” for Creating and printing sales transaction bills.

**Final product of the specification:**

Product ready software

A set of stable test scripts that can be reused for functional and user acceptance testing (UAT) and Test Execution.

**2. Scope of testing:**

|  |  |  |
| --- | --- | --- |
| **Module Name** | **Application Roles** | **Description** |
| Sales Transaction | Salesclerk | Perform the sales transaction of every item in the supermarket. |
| Generation of bill | Salesclerk | Bill generated for every item purchased by the customer. |
| Update Inventory | manager | Update the inventory when an item is sold, items are brought into the supermarket. |

**a) Within the scope:**

Functional Interface

External Interface

Cross Browser Testing

**b) Out of the scope**

Non-functional testing like stress, performance

Automation testing

**3. Testing Strategy:**

**System testing:**

A type of testingevaluates the complete and integrated system to ensure that it meets the specified requirements and performs as expected**.**

**User Acceptance Testing:**

It is a type of testing conducted by end-users or client to determine if the system meets their requirements and is ready for deployment

**b) Types of testing**:

**\*Unit testing:**

A type of testing focuses on testing individual components or units of the software to ensure their functionality and correctness.

**\*Regression testing:**

It is a type of testing performed to verify that changes or enhancements in the software do not introduce new defect or affect the existing functionality

**\*Functional testing:**

It is a type of testing that verifies the functionality of the software system based on the specified requirements

**\*Exploratory testing:**

It is a type of testing where the tester explores the software system, learns its features, and tests it concurrently to find defects that are not explicitly mentioned in the requirements.

**\*Sanity Testing:**

It is a type of testing performed to quickly check if the major functionality of the software is working as expected after a small change or fix.

**\*Smoke testing:**

It is a type of testing performed to verify if the critical functionality of the software is working fine before proceeding with the future testing.

**c) Testing Design Techniques:**

**\*Boundary value Analysis :( BVA)**

It is a type of testing technique where the input values are chosen at the boundary or just outside the boundary of equivalence partition to test behavior of the system.

**\*Equivalence class partition :( ECP)**

It is a testing technique where the input values are divided into groups or classes that are expected to exhibit similar behavior, and then test cases are created for each class.

**d) Configuration Management tools:**

\*GIT- hub Document configuration

**e) Terminology:**

Show all the products,

 Show discounted products,

Show cart,

Billing,

Exit,

Enter your choice,

 Add to cart,

Back.

**f) Area planned for automation**:

Since automation testing is involved in beyond the scope, we have not planned any area for automation testing because our project is not GUI based

**g) List of automation tools:**

As we mentioned that the automation testing is beyond scope, no tools are needed for this testing.

**4. Exit and Entry criteria:**

**a) Entry criteria:**

\*The entry criteria need to be done after the code is implemented and it is performed.

\*Requirement are deleted and approved

\*Availability of sufficient test plan

\*Test cases are developed and reviewed

\*Test environment is ready

**b) Exit criteria:**

\*99% of test script is executed

\*Pass rate is equal to 95%

\*No critical defects left

\*95% of medium severity defects were closed

\*Remaining bugs were fixed

**5. Test deliverables:**

|  |  |  |
| --- | --- | --- |
| Before testing | During testing | After testing |
| Test plan document | Test management |  |
| Test case document | Test data |  |
| Test design document | RTM |  |
| Requirements document |  |  |
| Installation Guidelines |  |  |

**6. Roles and Responsibility:**

|  |  |
| --- | --- |
| **Roles** | **Responsibility** |
| Project Manager | \*Manages the whole project  \*Define project direction  \*Risk Management |
| Test Engineer | \*Writes the test cases  \*Executes the test cases  \*Reports the defects  \*Identifying the test design techniques |
| Senior QA | \*Taking in-charge of quality Assurance  \*Confirms whether the testing process is meeting specified requirements or not |
| Configuration manager | \*Preparation of complete configuration documentation  \*Plan and execute configuration management throughout the lifecycle of the project |

**7. Risks and mitigations:**

**a) Risk and contingency:**

Customers will be assured a full set of suitable and protected test data is available.

Customer will endeavor to meet the prerequisites indicated by

Tester will indicate what is required and will verify suitability of test data

**b) Risk and mitigations:**

Meet outstanding prerequisites

Redefined data

Review data

Review the test plan and modify the components

Restore the data and restart

**8. Schedule:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task | Members | Estimate effort | Start date | End date |
| Create the test specification | Test designer | 160-man hour | 01-06-2024 | 31-06-2024 |
| Perform test execution | Tester and tester administrator | 60-man hour | 03-06-2024 | 31-06-2024 |
| Test report | tester | 14-man hour | 01-07-2024 | 03-07-2024 |
| Test delivery | Test administration | 16-man hour | 01-08-2024 | 05-08-2024 |
| Total |  | 250-man hours |  |  |

**9. Hiring and Training:**

Minimum 2 years of experience in manual testing

Database knowledge

1 month of training should be given under the domain and application

**10. Test Environment:**

|  |  |  |
| --- | --- | --- |
| No | Resources | Description |
| 1. | Server | Need a database server |
| 2. | Test tools | Develop a test tool which can auto generated the test result to the predefined form |
| 3. | Network | Setup a LAN gigabit and 3 internet lines with speed of least 10Mb/s |
| 4. | Computer | At least 10 computer run window 10, Ram,4GB, CPU 3.6HZ, Multiple browsers |
| 5. | MS tools | Test case preparation, test case execution defect management, test reporting and check list of tests. |

**11. Assumption:**

Exploratory testing should be carried out once the build is ready for testing

Test case design activities will be performed by QA group

Performance testing is not considered in this

Development team will own test environment and preparation activities

**12. Approval Information:**

Test lead: Reviews the test cases, test conditions, test data and test report

The name and tittle of all people who must approve this plan

Test Manager: Reviews the content of test plan and test strategy and test estimate signs off on it

SIGNATURE:

Name: Thomas Roy

Role: Project Manager

Date: 30-10-2024

**13. Test Metrics:**

1. Passed test cases percentage :( no.of passed test cases/ no.of test cases executed) \*100

2. Failed test cases percentage :( no.of failed test cases/ no. of test cases executed) \*100

3. Accepted defects percentage (Defects accepted as valid by dev team / total defects reported) \*100

4. Defects deferred percentage :( Defects differed for future releases/ total defects reported) \*100

5. Critical defects percentage (critical defect / total defects) \*100