**Card Payments**

**Test Plan**

Draft Version

**Submitted By:**

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**Document Revision History**

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| **Date** | **Version** | **Description** | **Author** | **Reviewer** | **Approver** |
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**1. INTRODUCTION**

This document will address the different standards that will apply to the unit, integration and system testing of the specified application. The design, development and testing of these reports will be based on clients “Card Payments” management project. Throughout the testing process we will be applying the test documentation specifications described in the IEEE Standard 829-1983 for Software Test Documentation.

**2. OBJECTIVE**

Objective of Test plan is to define the various Testing strategies and Testing tools used for complete Testing life cycle of this project.

**3. SCOPE**

The document mainly targets the API/GUI testing and validating data in report output as per Requirements Specifications provided by Client.

**3.1 Functions to be tested.**

1. GUI
2. API
3. Reports Output/Data
4. Report Setup/Locations

**3.2 Functions not to be tested.**

1. Not other than mentioned above in section 3.1

**4. REFERENCES**

* Guidelines provided by Client and their clients.
* Refer Guideline location: *https://github.com/cba-fdp-pub/test\_assessment/blob/main/q3.scenario.pdf*

**5. TESTING PROCESS OVERVIEW**

**5.1 Test Process**

Test process followed by QA will be categorized in to 2 ways:

* Process to be followed when sufficient time is available for QA
* Process to be followed when sufficient time is not available for QA

***A) Process to be followed when sufficient time is available for QA***

**Understanding Requirements:**

* Requirement specifications will be sent by client.
* Understanding of requirements will be done by QA along with
* Respective lead and developer and queries are raised if any.
* Raised queries will be sent by lead to client.
* Response to queries will be sent by client.

**Preparing Test Cases:**

QA will be [**Preparing Test Cases**](https://www.softwaretestingclass.com/tips-guidelines-for-writing-test-cases/) based on the requirement specifications. This will cover all scenarios for requirements.

**Preparing Test Matrix:**

QA will be preparing test matrix which maps test cases to respective requirement. This will ensure the coverage for requirements.

**Reviewing test cases and matrix:**

* Peer review will be conducted for test cases and test matrix by senior QA member in QA team
* In certain cases for e.g. complex requirements, lead’s help will be taken for conducting review
* Any comments or suggestions on test cases and test coverage will be provided by reviewer respective Author of Test Case and Test Matrix
* Suggestions or improvements will be re-worked by author and will be send for approval
* Re-worked improvements will be reviewed and approved by reviewer

**Creating Test Data:**

Test data will be created by respective QA on client’s developments/test site based on scenarios and Test cases.

**Executing Test Cases:**

* Test cases will be executed by respective QA on client’s development/test site based on designed scenarios, test cases and Test data.
* Test result (Actual Result, Pass/Fail) will updated in test case document

**Defect Logging And Reporting:**

QA will be logging the defect/bugs in Jira bug tracking tool found during execution of test cases and will assigned the Bug id generated by Jira to respective test cases document. After this, QA will inform respective developer about the defect/bugs.

**Retesting And Regression Testing:**

Retesting for fixed bugs will be done by respective QA once it is resolved by respective developer and bug/defect status will be updated accordingly. In certain cases, regression testing will be done if required.

**Deployment/Delivery:**

* Once all bugs/defect reported after complete testing is fixed and no other bugs are found, report will be deployed to client’s test site by developer.
* Once round of testing will be done by QA on client’s test site if required
* Report will be delivered along with sample output by email to respective lead and Report group.
* QA will be submitting the filled hard copy of delivery slip to respective developer.
* Once lead gets the hard copy of delivery slip filled by QA and developer, he will send the report delivery email to client.

***B) Process to be followed when sufficient time is not available for QA***

**Understanding requirement:**

* Requirement specification will be sent by client
* Understanding of requirements will be done by QA along with respective lead and developer and queries are raised if any
* Raised quires will be sent by lead to client
* Response to queries will be sent by client

**Creating test data:**

Test data will be created by respective QA on client’s development/test site based on scenarios and test cases.

**Executing test scenarios:**

QA will be doing adhoc testing based on requirements and test scenarios.

**Defect logging and reporting:**

QA will be logging the defects/bugs in [Jira](https://bugzilla.mozilla.org/" \o "Bugzilla Bug Tracking Tool" \t "_blank) bug tracking tool found during executing the test. After this, QA will inform respective developer about the defect/bugs.

**Retesting and regression testing:**

Retesting for fixed bugs will be done by respective QA once it is resolved by respective developer and bug/defect status will be updated accordingly. In certain cases, regression testing will be done if required

**Deployment/delivery:**

* Once all bugs/defects reported after complete testing are fixed and no other bugs are found, report will be deployed to client’s test site by developer.
* One round of testing will be done by QA on client’s test site if required
* Report will be delivered along with sample output by email to respective lead and report group.
* QA will be submitting the filled hard copy of delivery slip to respective developer
* Once lead gets the hard copy of delivery slip filled by QA and developer, he will send he report delivery email to Client.

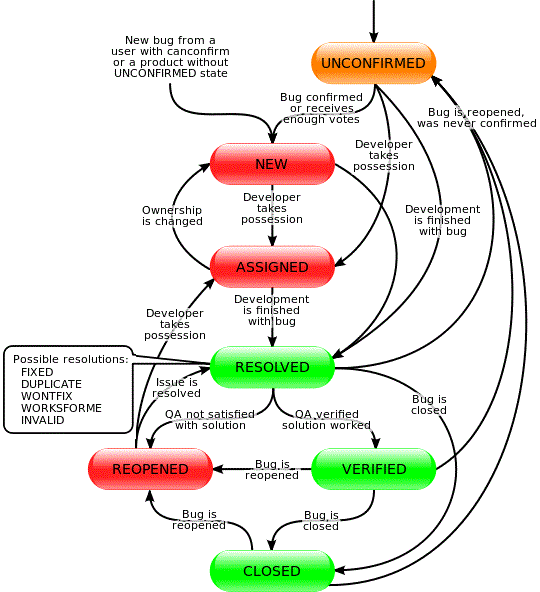
**5.2 Data creation for testing**

QA will create test data on development site for scenarios based on client’s requirements specifications.

**5.3 Bug life cycle:**

All the issues found while testing will be logged into Jira bug tracker.

Bug life cycle for this project is as follows:

[](https://www.softwaretestingclass.com/test-plan-template/bugzilla_bug-life-cycle/)

**Bug Life Cycle**

**6. TEST STRATERGY**

**6.1 Testing types**

[**Black box testing:**](https://www.softwaretestingclass.com/what-is-black-box-testing/)

It is some time called behavioral testing or Partition testing. This kind of testing focuses on the functional requirements of the software. It enables one to derive sets of input conditions that that will fully exercise all functional requirements for a program.

**GUI Testing:**

GUI testing will includes testing the UI part of report. It covers users Report format, look and feel, error messages, spelling mistakes, GUI guideline violations.

**Integration Testing:**

Integration testing is systematic technique for constructing the program structure while conducting test to uncover errors associated with interacting. In Report, integration testing includes the testing Report from respective location(s).

[**Functional Testing:**](https://www.softwaretestingclass.com/functional-testing/)

Functional testing is carried out in order to find out unexpected behavior of the report. The characteristic of functional testing are to provide correctness, reliability, testability and accuracy of the report output/data.

[**System Testing**](https://www.softwaretestingclass.com/system-testing-what-why-how/)**:**

System testing of software is testing conducted on a complete, integrated system to evaluate the system’s compliance with its specified requirements.

**Performance Testing:**

Performance testing will be done by Client

**Stress Testing:**

Stress testing will be done by Client.

**Security and Access control testing**

* Not Applicable as this is already done by Client.

[**User acceptance testing**](https://www.softwaretestingclass.com/user-acceptance-testing-what-why-how/)**:**

The purpose behind user acceptance testing is to conform that system is developed according to the specified user requirements and is ready for operational use. Acceptance testing is carried out at two levels – Alpha and Beta Testing. User acceptance testing (UAT) will be done at the Client.

**Alpha testing:**

The alpha test is conducted at the developer’s site by client.

[**6.2 Tools**](https://www.softwaretestingclass.com/software-testing-tools-list/)

|  |  |  |
| --- | --- | --- |
| **Tool Name** | **Vender** | **Version** |
| Microsoft SQL Server 2005 | Microsoft | 9.00.3042.00 |
| Jira |  |  |
| Selenium | Open Source |  |

**7. TEST ENVIRONMENT**

|  |  |
| --- | --- |
| **Server Name** | **URL** |
| ENV\_1 | TBD |
| ENV\_2 | TBD |
| Machine: QA-Database | – |

**8. TEST SCHEDULE**

**Planning Phase**:

High-level test planning activities, which include preliminary development of Master QA Plan (this document, QA schedule. At this Milestone, the high level planning should be completed.    Some of the deliverable are: Project Plan, Program function specifications.

**Design Phase:**

Development and Test engineers participate actively in feature design by inspecting and reviewing the requirements and design documents.  As the design documents are completed, the test engineers are encouraged to start working on the Test Plan document and test design planning.

**Code Complete-Infrastructure:**

The Test Engineers should have completed or in the final stages of their preliminary Infrastructure Test Plan, test cases and other QA documents related to test execution for each feature or component such as test scenarios, expected results, data sets, test procedures, scripts and applicable testing tools.

**Code Complete-Function:**

The Test Engineers should have provided Code Complete Assessment Test to Development Engineer one week prior to Code Complete Review date.  The Test Engineers should also have completed or in the final stages of their preliminary White Box Test Plan, test cases and other QA documents related to test execution for each feature or component such as test scenarios, expected results, data sets, test procedures, scripts and applicable testing tools.

**Feature Complete:**

All bugs verified and QA documentation is finalized.  The test Engineers should assess that Binary Tree features are ready for Beta regression and have started their preliminary Test Summary Reports.

**Regression Test:**

Complete regression test execution of complete system and update Test Summary Reports for regression.

**Beta Ready:**

2 Weeks regression of Binary Tree features to Beta and preparation for Beta Shutdown.

**Ship/Live:**

Any unfinished Testing documents should be complete.

**9. CONTROL PROCEDURE**

**9.1 Reviews:**

Reviews will be done on following documents and review report will be prepare for each work products

* Test cases
* RTM(Requirement Traceability Matrix)

**9.2 Bug Review Meetings:**

Bug review meeting will be held for every test cycle conducted during the following phases:-

* API Testing
* GUI Testing
* Report Output/Data Testing

In case of critical / show stoppers bugs.

**9.3 Change Request:**

Change request for report will be handled using following process:

* Understanding the change request and its impact on exiting report functionality
* If the change is major, test cases will be updated
* If the change is minor, test cases will may not be updated
* Retesting and regression testing will be done as per changed request

**9.4 Defect Reporting:**

Bugs found during static and dynamic testing will be logged in Jira bug tracking tool.

**10. ROLES AND RESPONSIBILITIES**

|  |  |
| --- | --- |
| **Role** | **Responsibilities** |
| PM | 1. Acts as a primary contact for development and QA team. 2. Responsible for Project schedule and the overall success of the project. |
| QA | 1. Understand requirements 2. Writing and executing Test cases 3. Preparing RTM 4. Reviewing Test cases, RTM 5. Defect reporting and tracking 6. Retesting and regression testing 7. Bug Review meeting |

**11. DELIVERABLE**

|  |  |
| --- | --- |
| **Deliverable** | **Responsibility** |
| Test Design Document and Test plan document | a) Unit white-box test design – covers white testing criteria, methods and test cases  b) System test design – covers system test criteria, methods, and test cases, scripts.  c) Unit black-box test design – covers black-box testing criteria, methods and test cases. |
| Test report document | a) System Test report – covers system test results, problems, summary and analysis  b) Unit white-box test report – covers unit white box test results, problems, summary and analysis  c) Unit black-box test report – covers unit black box test results, problems, summary and analysis |

**12. ENTRY CRITERIA**

* The whole source code must be unit tested H/W and S/W should be in place
* QA resources have completely understood the requirements
* QA resources have sound knowledge of functionality in Reports
* Reviewed test scenarios, test cases and RTM

**13. SUSPENSION CRITERIA**

* The build contains many serious defects which seriously or limit testing progress.
* Significant change in requirements suggested by client
* Software/Hardware problems
* Assigned resources are not available when needed by test team.

**14. RESUMPTION CRITERIA**

* Resumption will only occur when the problem(s) that caused the caused the suspension have been resolved

**15. EXIT CRITERIA**

* No defects over a period of time or less testing efforts
* All the high priority/severity test cases has been executed
* Deliverables are ready
* High severity/ priority bugs are fixed

**16. RISK**

* Delay in delivery of test items might require increased night shift scheduling to meet the delivery date
* Understanding requirements
* Domain and project knowledge

**17. ACRONYMS**

* GUI: Graphical User Interface
* RTM: Requirement Traceability Matrix