Test Plan for

**DB2 Inventory Management Project**

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Contents

[Test Plan Identifier 2](#_Toc510076773)

[Introduction 2](#_Toc510076774)

[Test Items 2](#_Toc510076775)

[Approach 3](#_Toc510076776)

[Pass/Fail Criteria 3](#_Toc510076777)

[Suspension Criteria 3](#_Toc510076778)

[Test Deliverables 3](#_Toc510076779)

[Testing Tasks 4](#_Toc510076780)

[Environment 5](#_Toc510076781)

[Responsibilities 5](#_Toc510076782)

[Risks 6](#_Toc510076783)

[References 6](#_Toc510076784)

# Test Plan Identifier

DB2 Inventory Management Project-01

# Introduction

The purpose of this document is to define the testing approach for the DB2 Inventory Management Project. The first part of the application that will be tested is the data collection portion. This application allows business managers and owners to track items in stock, orders, sales, customer information, and other relevant information. This capability will be used to see what areas do not have many customers and use that information to do targeted marketing and advertise in those areas that do not appear to know about the business. It will also allow for business managers to track inventory on hand and what items need to be ordered. This makes ordering inventory much more efficient. Rather than counting numerous items in a storage room, a search can be run with the app that tells them what needs to be ordered. The second part of the application to be tested is the notification function, which allows management to be notified when items will expire so that specials could be run ahead of time and they would know what needs to be taken off the shelf once it is past its expiration date.

# Test Items

All requirements and use cases from the Project Plan will have test cases developed and executed.

|  |  |  |  |
| --- | --- | --- | --- |
| Input / Output | | | |
| Task | **Input** | **Output** |
| User Authentication | User Name and Password | Navigation to Main Menu if successful or error message |
| Create New Records for Items | Click New Item Button/Insert Mandatory Fields | Record is added |
| Create New Records for Orders | Click New Order Button/Insert Mandatory Fields | Record is added |
| Create New Records for Vendors | Click New Vendor Button/Insert Mandatory Fields | Record is added |
| Create New Records for Sales | Click New Sales Button/Scan a Barcode or Insert Mandatory Fields | Record is added |
| Create New Records for Customers | Click New Customer Button/Insert Mandatory Fields | Record is added |
| Create New Records for Invoice | Click New Invoice Button/Insert Mandatory Fields | Record is added |
| Create New Records for Items | Click New Item Button/Insert Mandatory Fields | Record is added |
| View / Modify Records | Click on View/Modify Records Button | Database Workspace is Opened with All Tabs visible |
| Save changes | Make changes and click save | Confirm dialog |
| Delete inspection | Click Delete | Confirm dialog |
| Reporting | Click on Reports Button | Navigation to the Reporting page |
| Generate reports | Select generate reports and select filters | Selected filtered report |
| Alert Messaging | Click Notification Button | Navigation to Notification Page |
| Set Alert Frequency | Set Reminder Date for Threshold Items | Confirm dialog |

# Approach

Testing will be performed after each phase of development and will be broken into three cycles. The first cycle of each phase will be Smoke Testing and will be performed manually by the Design Lead to ensure that the code works at the most basic level. Peer reviews of the code will also take place now to ensure best practices are implemented and provide feedback for future phases. The second cycle of testing will be System Integration Testing. This cycle will test that the system functions correctly from end to end based on the system requirements. Test cases will be automated so that they can be executed in future phases as regressions tests. The last cycle of testing will be User Acceptance Testing. This cycle ensures that the application meets the end user’s expectations regarding functionality and usability and will be performed manually. Manual Test cases will be created and executed via the Application.

# Pass/Fail Criteria

Test cases will be considered passed only if the actual results match the expected results. Otherwise, they will be considered failed.

# Suspension Criteria

Testing will be suspended only if the environment is unavailable or a major defect is discovered with no acceptable workaround. Testing will resume once the environment is restored or the defect is resolved.

# Test Deliverables

|  |  |
| --- | --- |
| Deliverable | Description |
| Test Plan | Document to provide overall guidance on the testing efforts |
| Smoke Test Cases | Manual test cases to ensure the application works at the most basic level |
| System Integration Test Cases | Automated test cases to ensure that the system functions correctly from an end to end perspective |
| User Acceptance Test Cases | Manual test cases to ensure that the application meets the end user’s expectations |
| Phase Testing Report | Report to convey testing results at the end of each phase to the relevant stakeholders |
| Final Test Report | Report to convey all test results from each phase to the relevant stakeholders |

# Testing Tasks

|  |  |  |
| --- | --- | --- |
| Phase 1 | | |
| Task | **Owner** | **Due Date** |
| Create Smoke Test Cases | Design Lead | 04/5/2018 |
| Execute Smoke Testing | Design Lead | 04/5/2018 |
| Create System Integration Test Cases | Test Lead | 04/6/2018 |
| Execute System Integration Testing | Test Lead | 04/6/2018 |
| Create User Acceptance Test Cases | Team | 04/7/2018 |
| Execute User Acceptance Testing | Team | 04/7/2018 |
| Create Phase End Test Report | Test Lead | 04/9/2018 |

|  |  |  |
| --- | --- | --- |
| Phase 2 | | |
| Task | **Owner** | **Due Date** |
| Create Smoke Test Cases | Design Lead | 04/17/2018 |
| Execute Smoke Testing | Design Lead | 04/17/2018 |
| Create System Integration Test Cases | Test Lead | 04/18/2018 |
| Execute System Integration Testing | Test Lead | 04/18/2018 |
| Create User Acceptance Test Cases | Team | 04/19/2018 |
| Execute User Acceptance Testing | Team | 04/19/2018 |
| Create Phase End Test Report | Test Lead | 04/21/2018 |

|  |  |  |
| --- | --- | --- |
| Phase 3 | | |
| Task | **Owner** | **Due Date** |
| Create Smoke Test Cases | Design Lead | 04/23/2018 |
| Execute Smoke Testing | Design Lead | 04/23/2018 |
| Create System Integration Test Cases | Test Lead | 04/24/2018 |
| Execute System Integration Testing | Test Lead | 04/24/2018 |
| Create User Acceptance Test Cases | Team | 04/25/2018 |
| Execute User Acceptance Testing | Team | 04/25/2018 |
| Create Final Test Report | Test Lead | 04/27/2018 |

# Environment

The test environment will need to be set up with the following specifications:

|  |  |  |
| --- | --- | --- |
| **Requirements** | **Client Side** | **Web Server** |
| Operating System | Windows | Windows Server |
| Web Browser | Firefox, Internet Explorer | NA |
| Software | Adobe Reader, PDF print driver | IIS |
| Hardware | Windows tablet or PC | x86 or x64 computer |
| Network | Internet access | Internet access |
| Database | NA | SQL Server 2008 (for the class project SQL Server Express 2014) |

# Responsibilities

|  |  |  |
| --- | --- | --- |
| **Team Member** | **Role** | **Responsibilities** |
| Abimbola Otugalu | Project Lead | Ensure testing timeline is on track, Support testing efforts as needed, facilitate communication between teammates, Perform peer code review |
| Jeremy Worthy | Design Lead | Create and execute smoke test cases, Assist with defect resolution, Retest fixed defects |
| Michael Goetschius | Design Lead | Provide defect fixes, assist with defect severity and priority classification, Support testing efforts as needed |
| Jessica Fritschle | Test Lead | Create and execute System Integration Test Cases, assist with defect severity and priority classification, create test reports, Manage defect tracking and resolution, Retest fixed defects |
| Ellis Hunter | Test Lead | Create and execute System Integration Test Cases, assist with defect severity and priority classification, create test reports, Manage defect tracking and resolution, Retest fixed defects |

# Risks

|  |  |
| --- | --- |
| Risk | Mitigation |
| Due to the short timeline of the project, any critical defects or environmental outages could have a serious impact on the overall timeline | Work as quickly as possible to resolve issues and increase efforts to regain any lost time |

# References

|  |  |  |
| --- | --- | --- |
| # | Document Name | Version |
| 1 | Project Plan for DB2 Inventory Management Project | 1.0 |
| 2 | IEEE Standard for Software Test Documentation | IEEE Std 829-1998 |