# ABC’s Inventory Management System

# Testing Plan

1. INTRODUCTION

1.1. Purpose

This test plan describes the testing approach and overall framework that will drive the testing of the ABC Inventory Management System. The document introduces:

* Test Strategy: rules the test will be based on, including the givens of the project (e.g.: start / end dates, objectives, assumptions); description of the process to set up a valid test (e.g.: entry / exit criteria, creation of test cases, specific tasks to perform, scheduling, data strategy).
* Execution Strategy: describes how the test will be performed and process to identify and report defects, and to fix and implement fixes.
* Test Management: process to handle the logistics of the test and all the events that come up during execution (e.g.: communications, escalation procedures, risk and mitigation, team roster)

1.2. Audience

* Project team members perform tasks specified in this document, and provide input and recommendations on this document.
* Project Manager Plans for the testing activities in the overall project schedule, reviews the document, tracks the performance of the test according to the task herein specified, approves the document and is accountable for the results.
* The stakeholders’ representatives and participants (individuals as identified by the PMO Leads) may take part in the UAT test to ensure the business is aligned with the results of the test.
* Technical Team ensures that the test plan and deliverables are in line with the design, provides the environment for testing and follows the procedures related to the fixes of defects.
* Business analysts will provide their inputs on functional changes.

2. TEST STRATEGY

2.1. Test Objectives

The objective of the test is to verify that the functionality of ABC Inventory Management System works according to the specifications.

The test will execute and verify the test scripts, identify, fix and retest all high and medium severity defects per the entrance criteria, prioritize lower severity defects for future fixing via Change Request.

The final product of the test is twofold:

* A production-ready software;
* A set of stable test scripts that can be reused for Functional and UAT test execution.

2.2.Assumptions

**Key Assumptions**

* Production like data required and be available in the system prior to start of Functional Testing
* In each testing phase, Cycle 3 will be initiated if the defect rate is high in Cycle 2.

**General**

* Exploratory Testing would be carried out once the build is ready for testing
* Performance testing is not considered for this estimation.
* All the defects would come along with a snapshot JPEG format
* The Test Team will be provided with access to Test environment via VPN connectivity
* The Test Team assumes all necessary inputs required during Test design and execution will be supported by Development/BUSINESS ANALYSTs appropriately.
* Test case design activities will be performed by appropriate team members
* Test environment and preparation activities will be owned by Dev Team
* Dev team will provide Defect fix plans based on the Defect meetings during each cycle to plan. The same will be informed to Test team prior to start of Defect fix cycles
* Team Leader/ BUSINESS ANALYSTs will review and sign-off all Test cases prepared by Test Team prior to start of Test execution
* The defects will be tracked through Github only. Any defect fixes planned will be shared with Test Team prior to applying the fixes on the Test environment
* Sponsor will review and sign-off all test deliverables
* The project will provide test planning, test design and test execution support ANALYST
* Team members have the knowledge and experience necessary, or has received adequate training in the system, the project and the testing processes.
* Cycle 3 will be initiated if there are more defects in Cycle 2.

**Functional Testing**

* During Functional testing, testing team will use preloaded data which is available on the system at the time of execution
* The Test Team will be perform Functional testing only on ABC Inventory Management Application

**UAT**

* UAT test execution will be performed by end users (L1, L2and L3) and QA Group will provide their support on creating UAT script.

2.3. Test Principles

* Testing will be focused on meeting the business objectives, cost efficiency, and quality.
* There will be common, consistent procedures for all teams supporting testing activities.
* Testing processes will be well defined, yet flexible, with the ability to change as needed.
* Testing activities will build upon previous stages to avoid redundancy or duplication of effort.
* Testing environment and data will emulate a production environment as much as possible.
* Testing will be a repeatable, quantifiable, and measurable activity.
* Testing will be divided into distinct phases, each with clearly defined objectives and goals.
* There will be entrance and exit criteria.

2.4. Data Approach

* In functional testing, ABC Management System will contain pre-loaded test data and which is used for testing activities.

2.5. Scope and Levels of Testing

2.5.1. Exploratory

**PURPOSE:** the purpose of this test is to make sure critical defects are removed before the next levels of testing can start.

**SCOPE:** First level navigation, warehouse staff and store staff interfaces.

**TESTERS:** Testing team.

**METHOD:** this exploratory testing is carried out in the application without any test scripts and documentation

**TIMING:** at the beginning of each cycle.

2.5.2 Functional Test

**PURPOSE:** Functional testing will be performed to check the functions of application. The functional testing is carried out by feeding the input and validates the output from the application.

**Scope:** Log In/Out, Search Products, Manage Product, Send Product, Accept Product, Manage Staff, Create Report

**TESTERS:** Testing Team.  
**METHOD:** The test will be performed according to Functional scripts.

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**TIMING:** after Exploratory test is completed.

**TEST ACCEPTANCE CRITERIA**

1. Approved Functional Specification document, Use case documents must be available prior to start of Test design phase.
2. Test cases approved and signed-off prior to start of Test execution
3. Development completed, unit tested with pass status and results shared to Testing team to avoid duplicate defects
4. Test environment with application installed, configured and ready to use state

**TEST DELIVERABLES**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Deliverable Name** | **Author** | **Reviewer** |
| 1. | Test Plan | Test Lead | Team Leader/ Business Analyst’s |
| 2. | Functional Test Cases | Test Team | Business Analyst’s Sign off |
| 3. | Functional Test Scripts | Test Team | Business Analyst’s |

2.5.3. User Acceptance Test (UAT)

**PURPOSE:** this test focuses on validating the business logic. It allows the end users to complete one final review of the system prior to deployment.

**TESTERS:** the UAT is performed by the end users (L1, L2 and L3).

**METHOD:** Since the business users are the most indicated to provide input around business needs and how the system adapts to them, it may happen that the users do some validation not contained in the scripts. Test team write the UAT test cases based on the inputs from End user (L1,L2 and L3 users) and Business Analyst’s.

**TIMING:** After all other levels of testing (Exploratory and Functional) are done. Only after this test is completed the product can be released to production.

**TEST DELIVERABLES**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Deliverable Name** | **Author** | **Reviewer** |
| 1. | UAT Test Cases | Test Team | Business Analyst’s Sign off |

3. EXECUTION STRATEGY

3.1. Test Cycles

* There will be two cycles for functional testing. Each cycle will execute all the scripts .
* The objective of the first cycle is to identify any blocking, critical defects, and most of the high defects. It is expected to use some work-around in order to get to all the scripts.
* The objective of the second cycle is to identify remaining high and medium defects, remove the work-around from the first cycle, correct gaps in the scripts and obtain performance results.
* UAT test will consist of one cycle.

4. TEST ENVIRONMENT

ABC Inventory Management System’s server will be hosted at AWS cloud service.

ABC Inventory Management Client Application will be installed to the testers’ device.

A device with either MacOS or Windows OS.