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| aa |  | Alex Academy |

**ABC Company**

**XYZ project test paln**

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| **Prepared By:** | [Name(s) of Preparer(s)] |
| **Version:** | [Version Number #.#] |
| **Date:** | [Date] |
| **Project Owner:** | [Name & Title of Project Owner] [Department] |
| **Project Manager:** | [Name of Project Manager] [Department] [Contact Information] |

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| **Status:** | **Draft** |
|  | **Routing for Document Approval** |
|  | **Approved** |
|  | **Unapproved** |

1. **Introduction**

## Purpose of Test Plan

The purpose of this document is to summarize the test strategy as it relates to the implementation of **Xyz**. This test plan provides managers and test personnel with the necessary approach to validate that each process performs correctly and that the requirements of the system have been satisfied. This test plan will provide the following:

* Detail the approach and strategy for testing of the solution
* Describe the planning, test case preparation and scheduling, including resource requirements
* Explain the execution, results documentation and review of the testing
* Provide the test cases which will be executed for this testing effort

## Scope of Testing

This document is a test plan for <Project Name> System Testing, produced by the System Testing team. It describes the testing strategy and approach to testing the team will use to verify that the application meets the established requirements of the business prior to release.

1. **Objectives and Tasks**

The objective of the test is to verify that the functionality of **Xyz** works according to the specifications. This Master Test Plan supports the following objectives:

* To provide test coverage for 100% of the documented requirements
* To provide coverage for System/ Software Design Document elements
* To execute 100% of the test cases during User Functionality Testing
* To execute 100% of the Performance testing
* To create, maintain and control the test environment
* Add other objectives as needed

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 CR.

The final product of the test is twofold:

* A set of stable test scripts that can be reused for Functional and UAT test execution.
* A production-ready software;
* Meets the requirements, specifications and the Business rules.
* Supports the intended business functions and achieves the required software standards.
* Satisfies the Entrance Criteria for User Acceptance Testing.

1. **Scopes**

Testing for this solution will include System, Stability, User Acceptance and Regression testing. These phases are described in Section 4 of this document. Test cases will be developed for Stability and User Acceptance testing, which will also be used for regression testing.

Development related to fixes identified during testing will be considered part of the testing phase of this project and will be tracked on the schedule as such.

A Requirements Traceability Matrix will be used to track the development, status and execution of the test cases as they relate back to the Requirements.

1. **Testing Strategies**
2. Unit Testing

Product Component Testing (aka Unit Testing) is the internal technical and functional testing of a module/component of code. Product Component Testing verifies that the requirements defined in the detail design specification have been successfully applied to the module/component under test.

1. System Testing

System testing is developer testing of the solution against the Functional Design Specification or the Requirements. The focus of this testing is to directly validate code

1. Integration Testing

An incremental series of tests of combinations or sub-assemblies of selected components in an overall system. Integration testing is incremental in a successively larger and more complex combinations of components tested in sequence, proceeding from the unit level (0% integration) to eventually the full system test (100% integration).

1. Regression Testing

A type of testing that validates existing functionality still performs as expected when new functionality is introduced into the system under test.

1. Functional Testing

The objective of this test is to ensure that each element of the component meets the functional requirements of the business as outlined in the:

* Business / Functional Requirements
* Business rules or conditions
* Other functional documents produced during the course of the project i.e. resolution to issues/change requests/feedback

1. Stress/Performance Testing

A performance test implemented and executed to understand how a system fails due to conditions at the boundary, or outside of, the expected tolerances. This failure typically involves low resources or competition for resources. Low resource conditions reveal how the target-of-test fails that is not apparent under normal conditions. Other defects might result from competition for shared resources (e.g., database locks or network bandwidth), although some of these tests are usually addressed under functional and load testing. Stress Testing verifies the acceptability of the systems performance behavior when abnormal or extreme conditions are encountered (e.g., diminished resources or extremely high number of users).

1. Acceptance Testing

This testing is performed by the functional end user representatives to ensure that the end users can use the solution as designed per the Business Requirements Document, including full end-to-end testing.>

User Functionality Test (UAT) is a type of Acceptance Test that involves end-users testing the functionality of the application using test data in a controlled test environment.

1. **Control Procedures**

**Problem Reporting:** Document the procedures to be followed when an incident is encountered during the testing process. If a standard form is going to be used, attach a blank copy as an “Appendix” to the Test Plan. In the event that you are using an automated incident logging system, write those procedures.

**Change Requests:** Document the process of modifications to the software. Identify who will sign off on the changes and what would be the criteria for including the changes to the current product. If the changes will affect the existing programs, then these modules need to be identified.

1. **Features to Be Tested**

This item includes all the features of a tested product. As an example, the feature below could be tested for E911 Provisioning System

* ALI file generation for each region
* MSAG Search
* Community Search
* User Creation and Modification
* Customer Creation and Modification
* Customer Search
* Location Creation and Modification
* Telephone Number assignment and updates
* Security / User Permissions
* Database Interface

1. **Features Not to Be Tested**

The following features are an example of what potentially could not be tested prior to delivery of the final product. The reason for this may be that development team does not have the resources (hardware, software, and personnel) to verify these limits:

* Scalability limits
* Response time (to a limited extent)
* Dataset size
* Hardware availability

1. **Resources/Roles & Responsibilities**

Specify the staff members who are involved in the test project and what are their roles going to be (**For Example,** Mary Brown (User) compile Test Cases for Acceptance Testing). Identify the groups responsible for managing, designing, preparing, executing, and resolving the test activities as well as the related issues.

Also, identify the groups responsible for providing the test environment. These groups may include developers, testers, operations staff, testing services, etc.

| Role | Name | Department | Comment |
| --- | --- | --- | --- |
| Test Lead |  |  |  |
| Project Manager |  |  |  |
| Test Case Developer |  |  |  |
| Functional Tester |  |  |  |
| Functional Tester |  |  |  |
| Functional Tester |  |  |  |
| Subject Matter Expert |  |  |  |

1. **Schedules**

Identify the high level schedule for each testing task. Establish specific milestones for initiating and completing each type of test activity, for the development of a comprehensive plan, for the receipt of each test input, and for the delivery of test output. Estimate the time required to do each test activity. (When planning and scheduling testing activities, it must be recognized that the testing process is iterative based on the testing task dependencies.)

Provide the schedule from beginning to completion of System, Stability, User Acceptance and/or Regression Testing. This can be a high-level timeline if the detailed testing schedule, including module/scenario testing, is included in either the Appendix section of this document or in a detailed scheduled located elsewhere (with a reference in the Appendix).

1. **Dependencies**

Identify significant constraints on testing, such as test-item availability, testing-resource availability, and deadlines.

1. **Risks/Assumptions**

The Test Preparation process requires the performance of a risk assessment for test execution. Risks associated with the testing project are potential problems/events that may cause damage to the software, systems, patient, personnel, operating systems, schedule, scope, budget or resources. The risks, listed in the risk log, may impact scope and schedule, necessitating a deviation from this Master Test Plan.

Detail the assumptions made in order for the testing to be successfully executive. Also detail the constraints affecting the testing phase and activities and any potential risks, including mitigation strategy. Provide a link to the Risks Log if risks are to be described and tracked in that document.

For example, the test environment for this project is extremely constrained in terms of resources. Personnel and time are hard to come by, and the hardware and software environment is quite different from the target production system.

An assumption the test team will make is that the production environment will be much more powerful than the test environment. As a result, very little performance and scalability testing will be performed in the test environment.

1. **Tools**

Identify the special software tools, techniques, and methodologies employed in the testing efforts. The purpose and use of each tool shall be described. Plans for the acquisition, training, support, and qualification for each tool or technique.). Add or delete tools as appropriate. As an example, the table below describes the tools that could be employed to support some project:

| **Tool Category or Type** | **Tool Brand Name and Vendor** | **Purpose of use** | **Version** |
| --- | --- | --- | --- |
| Test Management |  |  |  |
| Defect Tracking |  |  |  |
| Test Coverage Monitor or Profiler |  |  |  |
| Project Management |  |  |  |
| Performance Testing |  |  |  |
| Configuration Management |  |  |  |
| DBMS tools |  |  |  |
| Functional Test Automation |  |  |  |
| Other |  |  |  |

1. **Approvals**

By signing, the individuals listed below have approved this test plan.

|  |  |  |
| --- | --- | --- |
| Name: |  | Name: |
| Title: |  | Title: |
| Role: Project Owner |  | Role: Testing Project Lead |
| Date: |  | Date: |
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| --- | --- | --- |
| Name: |  | Name: |
| Title: |  | Title: |
| Role: Functional Project Lead |  | Role: Technical Project Lead |
| Date: |  | Date: |
|  |

For an approval received via electronic means, such as email, please indicate by placing “Electronic Approval” on the approval line. Please then place a copy of the electronic approval in the same project file folder where the approved version of this document is stored.

1. **Appendices**

Example of appendices.

# Appendix A – Testing Schedule

Include a text version, screen capture, link or referenced location of the overall schedule for testing including code freezes, functionality completion dates, etc.

# Appendix B – Related Documents

Link or referenced location of the Project Charter, Project Definition Document, Business Requirements, Project Schedule, Requirements Traceability Matrix and any other related documentation.

| **File Name** | **Document Owner** | **Document Location or Link** |
| --- | --- | --- |
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# Appendix C – Glossary

List any acronyms or terms which were used in the document and their meaning / definition.

| **Term / Acronym** | **Definition** |
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