

Test Management

Test Planning

- Test Plan is a document that is the point of reference based on which testing is carried out within the QA team.
- It is also a document we share with the Business Analysts, Project Managers, Dev team and the other teams. This is to enhance the level of transparency into the QA team's working to the external teams.
- It is documented by the QA manager/QA lead based on the inputs from the QA team members.
- Test Planning is typically allocated 1/3rd of the time it takes for the entire QA engagement. The other 1/3rd is for Test Designing and rest is for Test Execution.
- Test plan is not static and is updated on an on demand basis.
- The more detailed and comprehensive the Test plan, the more successful the testing activity.

Preparing a Test Plan

Test Plan is a dynamic document. The success of a testing project depends on a well written test plan document that is current at all times.

Test Plan is more or less like a blue print of how the testing activity is going to take place in a project.

Items in a Test Plan Template

What do they contain

Scope => Test scenarios/Test objectives that will be validated.

Out of scope => Enhanced clarity on what we are not going to cover

Assumptions => All the conditions that need to hold true for us to be able to proceed successfully

Schedules => Test scenario prep
Test documentation- test

cases/test data/setting up environment
Test execution, Test cycle-

how many cycle
Start and end date for cycles

Roles and Responsibilities => Team members are listed ,Who is to do what,
module owners are listed and

their contact info

Deliverables => artifacts) are going to

produce at what time frames

What documents(test

What can be

expected from each document

What kind of environment

Environment => requirements exist

Who is going

to be in charge

What to do in

case of problems

For example: JIRA

Tools => for bug tracking

Login
How to use

JIRA Defect Management =>

Who are we going to report the defects to

How are we

going to report

What is

expected- do we provide screenshot?

Risks and Risk Management =>

Risks are listed

Risks are

analyzed- likelihood and impact is

documented Risk mitigation plans are drawn

Deciding Test Approach

The choice of test approaches or test strategy is one of the most powerful factor in the success of the test effort and the accuracy of the test plans and estimates. This factor is under the control of the testers and test leaders.

Let's survey the major types of test strategies that are commonly found:

Analytical:

The risk-based strategy involves performing a risk analysis using project documents and stakeholder input, then planning, estimating, designing, and prioritizing the tests based on risk.

Another analytical test strategy is the requirements-based strategy, where an analysis of the requirements specification forms the basis for planning, estimating and designing tests.

Model-based:

You can build mathematical models for loading and response for e commerce servers, and test based on that model. If the behavior of the system under test conforms to that predicted by the model, the system is deemed to be working.

Methodical:

Methodical test strategies have in common the adherence to a pre-planned, systematized approach that has been developed in-house, assembled from various concepts developed inhouse and gathered from outside,

▫ **Process – or standard-compliant:**

▫ Process- or standard-compliant strategies have in common reliance upon an externally developed approach to testing.

▫ **Dynamic:**

▫ Dynamic strategies, such as exploratory testing, have in common concentrating on finding as many defects as possible during test execution and adapting to the realities of the system under test as it is when delivered.

▫ **Consultative or directed:**

▫ Consultative or directed strategies have in common the reliance on a group of non-testers to guide or perform the testing effort.

▫ **Regression-averse:**

▫ Regression-averse strategies have in common a set of procedures – usually automated – that allow them to detect regression defects.

▫ **What are the roles and responsibilities of a Tester?**

- In the planning and preparation phases of the testing, testers should **review and contribute to test plans**, as well as analyzing, reviewing and assessing requirements and design specifications.
- They may be involved in or even be the primary people identifying test conditions and creating test designs, test cases, test procedure specifications and test data, and may automate or help to automate the tests.
- They often set up the test environments or assist system administration and network management staff in doing so.
- As test execution begins, the number of testers often increases, starting with the work required to implement tests in the test environment.
- Testers execute and log the tests, evaluate the results and document problems found.
- They monitor the testing and the test environment, often using tools for this task, and often gather performance metrics.
- Throughout the testing life cycle, **they review each other's work**, including test specifications, defect reports and test results.

▫ **Test Plan Staffing and Training Needs**

- This section describes any specific training and staffing needs that are required to deliver the acceptance test plan.
- The main benefit of this section is that it communicates the resource requirements and seeks the approval for these resources to support the delivery of the test plan i.e. the types and numbers of business users required for acceptance testing

▫ **Training**

- Consideration needs to be given to areas such as:
 - Product training of test analysts on the application or system
 - Training in test design techniques for business users involved in UAT
 - Use of test execution and reporting tools for all users

Staffing needs

It is also important to identify and communicate the team size and resources required to deliver the test plan i.e. the numbers and types of business users required for acceptance testing.

A description and distribution of tasks should be provided in high level terms, providing information on the numbers of individuals required for each role and stating if multiple roles will be combined for individuals.

There should also be an indication when and for how long each resource will be required.

Test Plan Test Deliverables

This is where the acceptance testing team deliverables for this plan are explicitly listed; it differs from the schedule as it focuses on the deliverables of the test team only.

Planned date of delivery, along with where the responsibility for delivery lies, can also be included.

Items to consider for inclusion are:

- Test plans – e.g. master test plan, UAT Plan (this document)
- Test risk assessment matrix (updated)
- Test cases
- Test design specifications
- Test traceability matrix
- Burn down/up charts
- Configured tools and their outputs
- Test data and simulators
- Incident reports
- Daily incident and execution progress reports
- Test issues log
- Test exit report
- Lessons learned log

