Strategy and test plan

> **"When you fail to plan, you're planning to fail."** -Benjamin Franklin

Testing a whole system can sometimes be seen as an expensive activity. In average, all depending on the complexity and the criticality of the application, more than half of the development costs can be attributed to tests.[1] A thorough, mature and systematic planning is not only critical for controlling testing costs, but can also determine the success or failure of your project. A test plan drives the organization into adopting industry standards and respecting set practices during test phases. A test strategy defines the approach, as well as the techniques to adopt and use in order to obtain a satisfying quality evaluation. In other words, the test plan defines the « what » and the « when », whereas the strategy defines the « how ». **The combination of both documents gives us a total confidence that the tests are not only complete, but also well planned and well done.**

However, before jumping blindly into designing test cases and procedures, it is important to first define your strategy and test plan. This crucial planning step will help you to :

- **Mitigate risks and respect established constraints**
- **Identify the type of tests to run during test phases**
- **Know that the project is going in the right direction**
- **Manage expectations and worries from stakeholders**
- **Acknowledge common quality key objectives established by stakeholders**
- **Provide a procedure for unit, integration, system and user acceptance testing**

A formal strategy and test plan must be defined, examined and approved by the right people. In order to do this, it is very important to distinguish the difference between both activities, and to understand each other's components.

The primary components of a test plan are :
- Test processes
- Requirements traceability
- Testing items
- Test phase schedules
- Test recording procedures
- Hardware and software specifications
- Constraints

Examples of different test strategies are :
- Top-down testing
- Bottom-up testing
- Thread tests
- Non-functional requirements testing
- Back-to-back testing
- Data management testing
- Test automation

At Qualibre Technologies, we can help you define a sound strategy and test plan fit for your business needs. Our professional expertise in the field of software testing will help you to identify and assess what must be tested, the criteria for both success and failure, the tests frequency, the necessary hardware and software required for the test environment, the software attributes to test or not, as well as the project stakeholders needs and worries. The test phases are important activities to consider thoroughly during project planning. At the end, the bottom line for the project's success is determined whether or not an organization has the right experienced people to plan, manage, execute and control these tests.

1. Sommerville, I.. « Software Engineering », Addison-Wesley, ISBN 0-201-42765-6, 1996, p.450

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