

ACCEPTANCE TESTING

UAT Initiation and Design

Date	18 October 2022
Team ID	PNT2022TMID43265
Project Name	Efficient water quality analysis & prediction using machine learning
Maximum Marks	8 Marks

INTRODUCTION

ACCEPTANCE TESTING is a level of software testing where a system is tested for acceptability. The purpose of this test is to evaluate the system's compliance with the business requirements and assess whether it is acceptable for delivery.

Analogy

During the process of manufacturing a ballpoint pen, the cap, the body, the tail and clip, the ink cartridge and the ballpoint are produced separately and unit tested separately. When two or more units are ready, they are assembled and Integration Testing is performed.

When the complete pen is integrated, System Testing is performed. Once System Testing is complete, Acceptance Testing is performed so as to confirm that the ballpoint pen is ready to be made available to the end-users (students, poets, lovers, and so on).

Method

Acceptance Testing normally uses the Black Box Testing method and is executed manually. Mostly, the testing does not follow a strict procedure and is not scripted but is rather ad-hoc.

Types

Acceptance Testing can be categorized into two types (Internal and External):

Internal Acceptance Testing

This type of Acceptance Testing, also known as Alpha Testing, is performed by members of the organization that developed the software but who are not directly involved in the project (Development or Testing). Usually, it is the members of Product Management, Sales and / or Customer Support.

External Acceptance Testing

This type of Acceptance Testing is performed by people who are not employees of the organization that developed the software

Customer Acceptance Testing

This type of Acceptance Testing is performed by the customers of the organization that developed the software. They are the ones who asked the organization to develop the software. [This is in the case of the software not being owned by the organization that developed it.]

Testing (UAT)

This type of Acceptance Testing, also known as Beta Testing, is performed by the end users (either existing or potential) of the software. They can be the customers themselves or the customers'

customers or the general public or Testing). Usually, it is the members of Product Management, Sales and / or Customer Support.

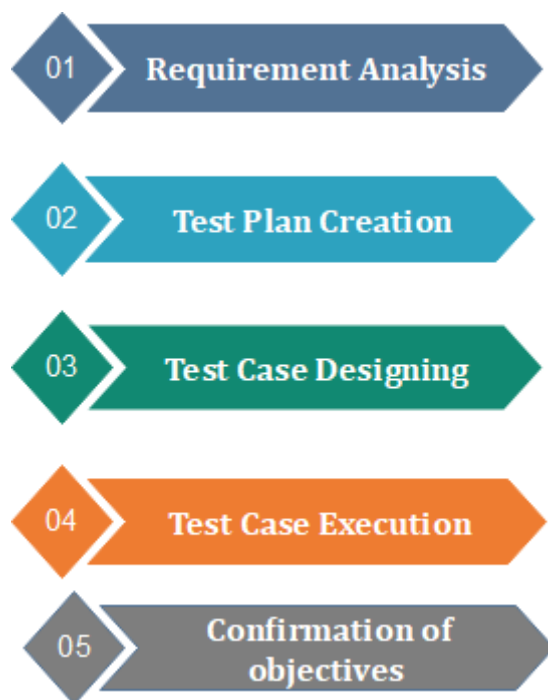
Acceptance Testing

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Acceptance Testing

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Steps to Perform Acceptance Testing



Requirement Analysis:

In this step, the testing team analyzes requirement document to find out the objective of the developed software. Test planning

accomplished by using requirement document, Process Flow Diagrams, System Requirements Specification, Business Use Cases, Business Requirements Document and Project Charter.

Test Plan Creation

Test Plan Creation outlines the whole strategy of the testing process. This strategy is used to ensure and verify whether the software is conforming specified requirements or not.

Test Case Designing

This step includes the creation of test cases based on test plan documents. Test cases should be designed in a way that can cover most of the acceptance testing scenario.

Test Case Execution:

Test Case Execution includes execution of test cases by using appropriate input values. The testing team collects input values from the end user then all test cases are executed by both tester and end user to make sure software is working correctly in the actual scenario.

Confirmation of objectives:

After successful completion of all testing processes, testing team confirms that the software application is bug-free and it can be

Acceptance Testing Acceptance Testing can be done by using several tools; some are given below done by using several tools; some are given below:

Fitness tool:

This tool is used to enter input values and generate test cases automatically. The user needs to input values, these values used by

the tool to execute test cases and to produce output. It uses Java language for the inter-process communication. This tool makes it easy to create test cases as well as record them in the form of a table.

Advantages of Acceptance Testing

- It increases the satisfaction of clients as they test application itself.
- The quality of the software is defined in an early phase so that the tester has already decided the testing points. It gives a clear view to testing strategy.
- The information gathered through acceptance testing used by stakeholders to better understand the requirements of the targeted audience.
- It improves requirement definition as client tests requirement definition according to his needs.

According to the testing plan, the customer has to write requirements in their own words and by themselves but

Disadvantages

- a. Customers are not willing to do that; it defeats the whole point of acceptance testing.
- b. If test cases are written by someone else, the customer does not understand them, so tester has to perform the inspections by themselves only.