



Test Case Preparation



- > The test case is defined as a group of conditions under which a tester determines whether a software application is working as per the customer's requirements or not. Test case designing includes preconditions, case name, input conditions, and expected result. A test case is a first level action and derived from test scenarios.
- > It is an in-details document that contains all possible inputs (positive as well as negative) and the navigation steps, which are used for the test execution process. Writing of test cases is a one-time attempt that can be used in the future at the time of regression testing.
- > Test case gives detailed information about testing strategy, testing process, preconditions, and expected output. These are executed during the testing process to check whether the software application is performing the task for that it was developed or not.
- > Test case helps the tester in defect reporting by linking defect with test case ID. Detailed test case documentation works as a full proof guard for the testing team because if developer missed something, then it can be caught during execution of these full-proof test cases.
- > To write the test case, we must have the requirements to derive the inputs, and the test scenarios must be written so that we do not miss out on any features for testing. Then we should have the test case template to maintain the uniformity, or every test engineer follows the same approach to prepare the test document.



When do we write a test case?

- > When the customer gives the business needs then, the developer starts developing and says that they need 3.5 months to build this product.
- > And In the meantime, the testing team will **start writing the test cases**.
- > Once it is done, it will send it to the Test Lead for the review process.
- > And when the developers finish developing the product, it is handed over to the testing team.
- > The test engineers never look at the requirement while testing the product document because testing is constant and does not depends on the mood of the person rather than the quality of the test engineer.

Why we write the test cases?



- > **To require consistency in the test case execution:** we will see the test case and start testing the application.
- > **To make sure a better test coverage:** for this, we should cover all possible scenarios and document it, so that we need not remember all the scenarios again and again.
- > **It depends on the process rather than on a person:** A test engineer has tested an application during the first release, second release, and left the company at the time of third release. As the test engineer understood a module and tested the application thoroughly by deriving many values. If the person is not there for the third release, it becomes difficult for the new person. Hence all the derived values are documented so that it can be used in the future.
- > **To avoid training for every new test engineer on the product:** When the test engineer leaves, he/she leaves with a lot of knowledge and scenarios. Those scenarios should be documented so that the new test engineer can test with the given scenarios and also can write the new scenarios.



The format of Standard Test Cases



Test Case ID	Test Case Description	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
TU01	Check Customer Login with valid Data	<ol style="list-style-type: none">Go to site http://demo.guru99.comEnter UserIdEnter PasswordClick Submit	UserId = guru99 Password = pass99	User should Login into an application	As Expected	Pass
TU02	Check Customer Login with invalid Data	<ol style="list-style-type: none">Go to site http://demo.guru99.comEnter UserIdEnter PasswordClick Submit	UserId = guru99 Password = glass99	User should not Login into an application	As Expected	Pass

How to Write Test Cases in Manual Testing



> Let's create a Test Case for the scenario: Check Login Functionality

Step 1) A simple test case to explain the scenario would be

Test Case #	Test Case Description
1	Check response when valid email and password is entered

Step 2) Test the Data. In order to execute the test case, you would need Test Data. Adding it below

Test Case #	Test Case Description	Test Data
1	Check response when valid email and password is entered	Email: guru99@email.com Password: INf9^Oti7^2h



- > Identifying test data can be time-consuming and may sometimes require creating test data afresh. The reason it needs to be documented.
- > **Step 3)** Perform actions. In order to execute a test case, a tester needs to perform a specific set of actions on the AUT. This is documented as below:


Test Case #	Test Case Description	Test Steps	Test Data
1	Check response when valid email and password is entered	1) Enter Email Address 2) Enter Password 3) Click Sign in	Email: guru99@email.com Password: lNf9^Oti7^2h

- > Many times the Test Steps are not simple as above, hence they need documentation. Also, the author of the test case may leave the organization or go on a vacation or is sick and off duty or is very busy with other critical tasks. A recently hire may be asked to execute the test case. Documented steps will help him and also facilitate reviews by other stakeholders.

- > **Step 4)** Check behavior of the AUT(Application under Test).The goal of test cases in software testing is to check behavior of the AUT for an expected result. This needs to be documented as below


Test Case #	Test Case Description	Test Data	Expected Result
1	Check response when valid email and password is entered	Email: guru99@email.com Password: lNf9^Oti7^2h	Login should be successful

- > During test execution time, the tester will check expected results against actual results and assign a pass or fail status



Test Case #	Test Case Description	Test Data	Expected Result	Actual Result	Pass/Fail
1	Check response when valid email and password is entered	Email: guru99@email.com Password: lNf9^Oti7^2h	Login should be successful	Login was successful	Pass

Step 5) That apart your test case -may have a field like,Pre – Condition which specifies things that must be in place before the test can run. For our test case, a pre-condition would be to have a browser installed to have access to the site under test. A test case may also include Post – Conditions which specifies anything that applies after the test case completes. For our test case, a post-condition would be time & date of login is stored in the database



Best Practice for writing good Test Case.

Simple

Keep End
user in Mind

Avoid
Repetition

**Do not
Assume**

**Ensure 100%
Coverage**

Identifiable

Use Testing
Techniques

Self-cleaning

Repeatable

Peer Review