

Test Case

A **test case template** is a document which allows **testers to develop the test cases for a particular test scenario** in order to verify whether the features of an application are working or not.

Test cases are the set of positive and negative executable steps of a test scenario which has a set of pre-conditions, test data, expected results, post-conditions, and actual results.

Most of the companies are using test case management tools such as Quality Centre (HP QC), JIRA, etc., and some of the companies still using excel sheets to write test cases.

What is the difference between Test Scenario vs Test Case?

Test Scenario gives the idea of what we have to test. Test Scenario is like a high-level test case.

Example: Verify the login functionality of the Gmail account.

Assume we need to write test cases for a scenario (Verify the login of the Gmail account).

Here are some test cases.

1. Enter valid Username and valid Password
2. Enter valid Username and invalid Password
3. Enter invalid Username and valid Password
4. Enter invalid Username and invalid Password

Who Writes Test Cases?

It varies from company to company. Assuming that a team contains developers and dedicated testers then it might be something like a joint effort.

- Developers write Unit Tests
- Developers & Testers write Integration Tests
- Testers write Acceptance Tests

Why Write Test Cases?

Test cases are one of the most important aspects of software engineering, as they define how the testing would be carried out. Test cases are carried out for a very simple reason, to check if the software works or not. There are many advantages of writing test cases:

- **To check whether the software meets customer expectations:** Test cases help to check if a particular module/software is meeting the specified requirement or not.
- **To check software consistency with conditions:** Test cases determine if a particular module/software works with a given set of conditions.

Test Case Template Format

Project Name:	Google Email	 www.SoftwareTestingMaterial.com							
Module Name:	Login								
Reference Document:	If any								
Created by:	Rajkumar								
Date of creation:	DD-MMM-YY								
Date of review:	DD-MMM-YY								
TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/FAIL)
TC_LOGIN_001	Verify the login of Gmail	Enter valid User Name and valid Password	1. Need a valid Gmail Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Valid User Name> <Valid Password>	Successful login	Gmail inbox is shown		
TC_LOGIN_001	Verify the login of Gmail	Enter valid User Name and invalid Password	1. Need a valid Gmail Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Valid User Name> <Invalid Password>	A message "The email and password you entered don't match" is shown			
TC_LOGIN_001	Verify the login of Gmail	Enter invalid User Name and valid Password	1. Need a valid Gmail Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Invalid User Name> <Valid Password>	A message "The email and password you entered don't match" is shown			
TC_LOGIN_001	Verify the login of Gmail	Enter invalid User Name and invalid Password	1. Need a valid Gmail Account to do login	1. Enter User Name 2. Enter Password 3. Click "Login" button	<Invalid User Name> <Invalid Password>	A message "The email and password you entered don't match" is shown			

How To Write Test Cases in Manual Testing

Step #1 – Test Case ID:

Each test case should be represented by a unique ID. It's good practice to follow some naming convention for better understanding and discrimination purposes.

Step #2 – Test Case Description:

Pick test cases properly from the test scenarios

Example:

Test scenario: Verify the login of Gmail

Test case: Enter a valid username and valid password.

Step #3 – Pre-Conditions:

Conditions that need to meet before executing the test case. Mention if any preconditions are available.

Example: Need a valid Gmail account to do login

Step #4 – Test Steps:

To execute test cases, you need to perform some actions. So write proper test steps. Mention all the test steps in detail and in the order how it could be executed from the end-user's perspective.

Example:

- Enter Username
- Enter Password
- Click Login button

Step #5 – Test Data:

You need proper test data to execute the test steps. So gather appropriate test data. The data which could be used as input for the test cases.

Example:

- Username: rajkumar@softwaretestingmaterial.com
- Password: STM

Step #6 – Expected Result:

The result which we expect once the test cases were executed. It might be anything such as Home Page, Relevant screen, Error message, etc.,

Example: Successful login

Step #7 – Post Condition:

Conditions that need to achieve when the test case was successfully executed.

Example: Gmail inbox is shown

Step #8 – Actual Result:

The result which system shows once the test case was executed. Capture the result after the execution. Based on this result and the expected result, we set the status of the test case.

Example: Redirected to Gmail inbox

Step #9 – Status:

Finally set the status as Pass or Fail based on the expected result against the actual result. If the actual and expected results are the same, mention it as Passed. Else make it as Failed. If a test fails, it has to go through the bug life cycle to be fixed.

Example:

Result: Pass

Other important fields of a test case template:

Project Name: Name of the project the test cases belong to

Module Name: Name of the module the test cases belong to

Reference Document: Mention the path of the reference documents (if any such as Requirement Document, Test Plan, Test Scenarios, etc.,)

Created By: Name of the Tester who created the test cases

Date of Creation: When the test cases were created

Reviewed By: Name of the Tester who created the test cases

Date of Review: When the test cases were reviewed

Executed By: Name of the Tester who executed the test case

Date of Execution: When the test case was executed

Comments: Include value information which helps the team

Best Practices To Write Good Test Case

Characteristics of a good test case are

- Easy to understand and execute
- Create Test Cases with End User's perspective
- Unique Test case Identifiers must be used. It allows us to track them easily.
- Prerequisites should be listed clearly. Helps to execute the test case without any issues.
- Test data should be defined to evaluate each functional area.
- Test case description should be concise.
- Test Steps should be in detail and clear.
- Specify the exact expected result.
- Needs to provide clear environment details where we need to execute them.
- Test cases should be reusable & maintainable

Popular Test Case Management Tools

some of the popular tools for the test management process are

1. PractiTest
2. Test Rail
3. Testpad
4. Qase
5. Klaros
6. Test Collab
7. QMetry
8. Meliora Testlab
9. TestLodge
10. TestCaseLab