



Test Cases



Test case

- A test case contains:
 - A sequence of Steps describing actions to be performed,
 - Test data to be used
 - An expected response for each action performed.
- Test Cases are written based on Business and Functional/Technical requirements, use cases and Technical design documents.
- There can be 1:1 or 1:N or N:1 or N:N relationship between requirements and Test cases
- The level of details specified in test cases will vary depending on Organizations, Projects and on the Test Case Template used OR on the Test Management tool being used in the project.

Test case

- Construction of Test Cases also helps in:
 - Finding issues or gaps in the requirements
 - Technical design itself.
- As Test Case construction activity would make tester to think through different possible Positive and Negative scenarios.
- It is test cases against which tester will verify the application is working as expected.
- Number of test cases to be created depends on the size, complexity and type of testing being performed

Test case examples

- Test case for ATM
 - TC 1 :- succesful card insertion.
 - TC 2 :- unsuccessful operation due to wrong angle card insertion.
 - TC 3:- unsuccessful operation due to invalid account card.
 - TC 4:- successful entry of pin number.
 - TC 5:- unsuccessful operation due to wrong pin number entered 3 times.
 - TC 6:- successful selection of language.
 - TC 7:- successful selection of account type.
 - TC 8:- unsuccessful operation due to wrong account type selected w/r to that inserted card.
 - TC 9:- successful selection of withdrawl option.
 - TC 10:- successful selection of amount.
 - TC 11:- unsuccessful operation due to wrong denominations.
 - TC 12:- successful withdrawl operation.
 - TC 13:- unsuccessful withdrawl operation due to amount greater than possible balance.
 - TC 14:- unsucceful due to lack of amount in ATM.
 - TC 15:- un due to amount greater than the day limit.
 - TC 16:- un due to server down.
 - TC 17:- un due to click cancel after insert card.
 - TC 18:- un due to click cancel after insert card and pin no.
 - TC 19:- un due to click cancel after language selection, **account** type selection,withdrawl selection, enter amount

Test cases for a web page

- Test cases for a web page
 - Testing without entering any username and password
 - Test it only with Username
 - Test it only with password.
 - User name with wrong password
 - Password with wrong user name
 - Right username and right password
 - Cancel, after entering username and password.
 - Enter long username and password that exceeds the set limit of characters.
 - Try copy/paste in the password text box.
 - After successful sign-out, try “Back” option from your browser. Check whether it gets you to the “signed-in” page.

How to write a test case



Some terminologies...

- Documented Test Cases are referred to as *Test Scripts*.
- Related test cases or test scripts are collectively referred to as *Test Suite*.

Writing better test cases

1. Requirement ID(s) being covered in the Test Case.
2. Test Condition(s) and Expected Result(s) being exercised in the Test Case.
3. **Initial setup required for executing the test script.** This could be environment or data or configuration setup to be done before running the test case.
4. **Post execution activities.** For e.g.:- Delete the application user 'WebAdmin' after test execution is completed.
5. **Priority (High, Medium and Low) of the Test Case.** Priority will help the tester to decide which test case(s) have to be run earlier than others.
6. **Complexity of the Test Case.** It will help to identify and filter Test Cases based on complexity. This would help in assigning test cases to testers, before test execution.
7. **Approximate time required for executing the test case.** This entry is required from Project management perspective to track the productivity and to ensure we can still meet the test execution deadlines.
8. **Test Steps.** This contains instruction on what actions to perform and what test data to use.

Writing better test cases

- 9. Expected results.** Each Test Step will have a corresponding Expected result field that would specify the expected response.
- 10. Actual result.** Each Test Step will have a corresponding Actual result field. Tester would enter the details on the response he saw after executing the test step.
- 11. Test Step result.** Typically, this field would contain values Not Applicable, No Run, Passed, Failed or in progress etc.
- 12. Test Case Version number**
- 13. Test case creation timestamp.**
- 14. Revision history.** When and who wrote or modified the test case etc.
- 15. Test Case status** (Draft, completed, reviewed, Not Valid etc.)
- 16. Test Case execution timestamps.**
- 17. Associated Defects.** This field will help to identify what are the existing defect(s) that are associated with the test case.
- 18. Project Name**
- 19. Application Name**