



SWE 4604:

Software Testing and Quality Assurance Lab 1

Topic: Test Case Report
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Test Case

A **test case** is a set of actions executed to verify a particular feature or functionality of your software application.

A poorly constructed test case can result in significant flaw leakage.

Writing effective test cases is critical to the success of any software project!

How to write a test case:

When you write test cases, you should include information such as:

- Preconditions
- Description of the test case
- Test case ID
- Expected outcomes
- Test result
- Software feature status etc.

Basic terminologies

| Terminology | Example |
|-----------------------|---|
| Test ID | Case_01, TC_ |
| Test Case Description | Description of the test case |
| Scenario | For which scenario this case is being tested |
| Test Data | What input data has been taken for this test case |
| Pre-Condition | Condition before running this test case |
| Priority | Priority of test to be executed |

Basic terminologies

| | |
|---------------------|---|
| Steps for execution | Steps for executing this test case |
| Expected Result | Based on the points mentioned above, the expected result can be mentioned here. |
| Actual Result | This will be filled during the actual execution of the test case. |
| Status | Test executed or not |
| Comments | Any kind of observation will be mentioned here |

Characteristics of Good test case

There are a number of guidelines or best practices in writing efficient test cases.

- **Only test one thing in a test case:**

Test case should not be complicated and it should only test a single condition or value. It should be as “atomic” as possible and it should not overlap other test cases either

- **Test case should have an exact and accurate purpose**

There should be no confusion what the test is supposed to be checking and what the expected behavior and result should be. The test case should be accurate on what it tests and it should test what it is intended to test.

- **Test case should be written in a clear and easy to understand language**

This applies to both the test definition in the documentation and in the actual code. Just like the test definition should be clear, the code that implements it should be straightforward and clear. Any developer or tester should be able to understand exactly what the test case is trying to do by reading it once.

Characteristics of Good test case

- **Test case should be relatively small**

If your test case is following the rule for only testing a single thing, it should not be large. If you find yourself writing a long test case, then chances are you are trying to test too much. In that case you need to break it down into multiple test cases.

- **Test case should be independent**

You should be able to execute the test cases in any order and independently of other test cases. This makes the test case simpler as it is self-sufficient and there is no reason to track or worry about any other test cases.

Characteristics of Good test case

- **Test case should be traceable to requirements or design**

The test case needs to test some behavior or characteristic that the code is supposed to have. So that means that there is an explicit requirement from the user or product owner, explicit organization requirement (e.g. serviceability for every product), or implicit requirement derived from some explicit requirement that the test case can be traced to.

- **Test case should be repeatable**

The test cases should be able to be rerun anytime and in any order. This allows for regression testing, reruns for fixes, and continuous integration where tests are run every time changed code is integrated into the product.

- **Test case should use consistent terminology and identification of functionality**

When naming or identifying a feature, functionality, or widget, there should be the same and consistent terminology within the test case and across test cases. So for example, if test cases are describing the tests for login page for a college class, they should not have “user”, “person”, and “student” to refer to the same identity.

Task:

For individual,

1. Take any of the sample websites for testing purposes.
2. Make a copy of the template given in the Google Classroom. Link : [Sample Test case Report - Google Sheets](#)
3. Write at least 15 test cases on any of the following websites.

Sample website:

- [JPetStore Demo \(octoperf.com\)](#)
- [Swag Labs \(saucedemo.com\)](#)