## **TEST CASE Fundamentals**

DEFINITION

A test case is a set of conditions or variables under which a tester will determine whether a system under test satisfies requirements or works correctly.

The process of developing test cases can also help find problems in the requirements or design of an application.

TEST CASE TEMPLATE

A test case can have the following elements. Note, however, that normally a test management tool is used by companies and the format is determined by the tool used.

|  |  |
| --- | --- |
| Test Suite ID | The ID of the test suite to which this test case belongs. |
| Test Case ID | The ID of the test case. |
| Test Case Summary | The summary / objective of the test case. |
| Related Requirement | The ID of the requirement this test case relates/traces to. |
| Prerequisites | Any prerequisites or preconditions that must be fulfilled prior to executing the test. |
| Test Procedure | Step-by-step procedure to execute the test. |
| Test Data | The test data, or links to the test data, that are to be used while conducting the test. |
| Expected Result | The expected result of the test. |
| Actual Result | The actual result of the test; to be filled after executing the test. |
| Status | Pass or Fail. Other statuses can be ‘Not Executed’ if testing is not performed and ‘Blocked’ if testing is blocked. |
| Remarks | Any comments on the test case or test execution. |
| Created By | The name of the author of the test case. |
| Date of Creation | The date of creation of the test case. |
| Executed By | The name of the person who executed the test. |
| Date of Execution | The date of execution of the test. |
| Test Environment | The environment (Hardware/Software/Network) in which the test was executed. |

TEST CASE EXAMPLE / TEST CASE SAMPLE

|  |  |
| --- | --- |
| Test Suite ID | TS001 |
| Test Case ID | TC001 |
| Test Case Summary | To verify that clicking the Generate Coin button generates coins. |
| Related Requirement | RS001 |
| Prerequisites | 1. User is authorized. 2. Coin balance is available. |
| Test Procedure | 1. Select the coin denomination in the Denomination field. 2. Enter the number of coins in the Quantity field. 3. Click Generate Coin. |
| Test Data | 1. Denominations: 0.05, 0.10, 0.25, 0.50, 1, 2, 5 2. Quantities: 0, 1, 5, 10, 20 |
| Expected Result | 1. Coin of the specified denomination should be produced if the specified Quantity is valid (1, 5) 2. A message ‘Please enter a valid quantity between 1 and 10’ should be displayed if the specified quantity is invalid. |
| Actual Result | 1. If the specified quantity is valid, the result is as expected. 2. If the specified quantity is invalid, nothing happens; the expected message is not displayed |
| Status | Fail |
| Remarks | This is a sample test case. |
| Created By | John Doe |
| Date of Creation | 01/14/2020 |
| Executed By | Jane Roe |
| Date of Execution | 02/16/2020 |
| Test Environment | * OS: Windows Y * Browser: Chrome N |

WRITING GOOD TEST CASES

* As far as possible, write test cases in such a way that you test only one thing at a time. Do not overlap or complicate test cases. Attempt to make your test cases ‘atomic’.
* Ensure that all positive scenarios and negative scenarios are covered.
* Language:
  + Write in simple and easy to understand language.
  + Use active voice: Do this, do that.
  + Use exact and consistent names (of forms, fields, etc).
* Characteristics of a good test case:
  + *Accurate*: Exacts the purpose.
  + *Economical*: No unnecessary steps or words.
  + *Traceable*: Capable of being traced to requirements.
  + *Repeatable*: Can be used to perform the test over and over.
  + *Reusable*: Can be reused if necessary.