

Test Plan and Report Template

In the template, the parts in *italic* are parts that you are supposed to expand on. The parts in ***bold and italics*** are explanatory comments and are provided just for your understanding of the document.

Complete and tailor the document by expanding the relevant parts and removing explanatory comments as you go along. If you decide to omit a section, you might keep the header and insert a comment saying why you omitted the data.

(Team Name)

(Team Logo, if any)

Test Plan and Report Document

Version: (n)

Date: (mm/dd/yyyy)

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1 Introduction

In this section, first provide a concise description of the product being tested. Because a system typically comprises many interdependent components, use this section to clearly indicate what is being tested.

1.1 Assumptions

Discuss any assumptions made for the testing of the system. Assumptions may include version information for used libraries, characteristics of the execution environment, etc.

1.2 Definitions, Acronyms, and Abbreviations

Provide the definitions of all terms, acronyms, and abbreviations required to properly interpret the rest of the document. For example, for the table in Section 4, the following definitions could be provided:

| Term | Definition |
|------------------------|--|
| <i>Test #</i> | Test Case Number / Identifier |
| <i>Requirement</i> | Requirement that the test cases are validating (number / identifier) |
| <i>Action</i> | Action to perform or input to produce |
| <i>Expected Result</i> | Result expected when action is complete |
| <i>Actual Result</i> | What was actually seen |
| <i>P / F</i> | Pass / Fail indicator. Checkmark = Pass. "F" = Fail |
| <i>Notes</i> | Additional notes, error messages, or other information about the test. |

1.3 References

List any references or related materials here. More precisely, in this section:

- (1) Provide a complete list of all documents referenced elsewhere in the Test Plan and Report*
- (2) Identify the document by title, report number (if applicable), date, and publishing organization*
- (3) Specify the sources from which the references can be obtained*

This information can be provided by reference to an appendix or to another document.

1.4 Items Not Covered by These Test Cases

List any part of the product not being tested and provide a justification.

1.5 Document map

Define all major sections of this document and provide a brief summary of each.

2 Quality Control

2.1 Test Plan Quality

How are you going to ensure the quality of the testing process? How do you know if you have a good test plan?

2.2 Adequacy Criterion

Define the termination criterion (or criteria) for your testing activity. In other words, define how you will decide when the testing is done. Typically, this involves some form of functional or structural coverage.

2.3 Bug Tracking

Describe how bugs and enhancement requests will be tracked. This includes some form of database (e.g., a text file, a spreadsheet, Bugzilla, a standard DBMS). Entries in the database should include at least source, status, person assigned to, and resolution.

3 Test Strategy

3.1 Testing Process

This section should discuss:

- *Testing process: how will you do unit testing, integration testing (e.g., top down, bottom up, big bang, per functionality), system testing, regression testing, etc.*
- *Your general strategy for testing functional and non-functional requirements, if appropriate.*
- *Roles and responsibilities within the team (e.g., who is responsible for the different testing activities).*

3.2 Technology

Describe any testing technology you intend to use or build. Some typical examples are the use of JUnit for unit testing, the use of some coverage tool to measure test adequacy, the use of capture-replay tools to test GUIs, etc.

4 Test Cases

The following table defines, for each test case, its purpose, the steps necessary to perform the test, the expected result, the actual result, pass/fail information, and optional notes. The table is the most important section of the Test Plan and Report document and is filled in by the test team as the testing process proceeds. Note that failed tests should result in bug reports.

Date test performed: _____

Tester: _____

| Test # | Requirement or Purpose | Action / Input | Expected Result | Actual Result | P/F | Notes |
|--------|---------------------------|-------------------|--------------------|---------------|-----|-------|
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Guidelines:

- *Although the information in the table above indicates that each test comprises a line, actual descriptions may require multiple lines.*
- *The Test # can represent a category or set of related tests. In these situations, add a suffix to the number using small Roman letter. For example, use Test 2.a, Test 2.b, ...*
- *All tests should have a specific purpose. For example, a test may evaluate the satisfaction of a specific requirement, in which case the requirement number should be included.*
- *A test may comprise a series of steps, specified in the Action/Input field. Each step should include relevant user input and data files. That is, the information in this document is a prescription for executing the test.*
- *Some steps may be common to more than one test. There is no need to duplicate this content. In these cases, the Action field can refer to the Test # and step numbers that should be performed.*
- *Expected Results describe the exact output that should be produced by the test. Actual Output is what happened when the test was run. Note that for non-functional tests, the contents of this field might include elapsed time, memory consumed, etc.*
- *P/F denotes Pass / Fail. A test passes if its expected output matches its actual output.*
- *The Notes field can be used to provide additional details (e.g., to the debugging team).*
- *There may be cases where some tests are too expensive to perform or simply not cost/effective. In these cases, these test should be “grayed out” to indicate that they were not performed.*