# CMSC 345

### Software Design and Development

# Fall 2013

# **Testing Report Template**

Writing Instructions

Do not have anything the Software Quality Assurance Organization could call a defect.

Be sure that your document is

* Complete - No information is missing
* Clear - Every sentence's meaning must be clear to all parties
* Consistent – The writing style and notation is consistent throughout the document and the document does not contradict itself

Remember that you are required to do a team review of this document.

[This page does not go in your Testing document.]

**Purpose of This Assignment**

* To appreciate the complexity and necessary formality of the testing process.
* To learn how to devise comprehensive test suites while minimizing overall testing effort.
* To understand the use of equivalence partitions and boundary values in the testing process.

**Required Activities**

* Each team member should participate in the testing process. For example, assign each team member a particular test suite (test suites are discussed later in this document).

**Notes**:

* Thoroughly test your program prior to demo and transition. Defects that were detected but not repaired prior to Testing Report submission should be repaired prior to your demo.
* In order to run some of your tests, you may find it necessary to repair some of the other errors that you found. Note that it is not required that you fix all of the bugs that you find prior to submission of the Testing Report. At this point, you only need to fix "fatal" errors that make it difficult or impossible for you to conduct other tests.
* If there are bugs that you cannot fix prior to product delivery, make sure to document them in your Administrator Manual.

[Put Company name and Product name here]

Testing Report

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### 1. **Introduction**

* 1. Purpose of This Document

State the purpose of the document and indicate the intended readership. Briefly summarize the content. [One substantial paragraph]

* 1. References

Provide a list of all applicable and referenced documents and other media.that were used in the creation of this document. Minimally, your SRS should be referenced. See the Writing Resources on the CMSC 345 web site for the appropriate format for references.

2. **Testing Process**

* 1. Description

Briefly describe the testing process your team followed. Give the process *really* followed, not the "ideal" process. If your process was relatively far from the ideal, explain why you chose to diverge as well as how.

[Two to three substantial paragraphs]

2.2 Testing Sessions

For each testing session, specify the date, location, time started, time ended, who performed the tests, and which tests were covered.

2.3 Impressions of the Process

Summarize your general impressions of the testing process (e.g., was it effective, why/why not). Also summarize the quality of your program both prior to testing and after any repairs were made.

* + Indicate the "best" one or two modular units in your program (in terms of relatively small likelihood of remaining flaws) and why you think so.
  + Indicate the "worst" one or two modular units in your program (in terms of relatively large likelihood of remaining flaws) and why you think so.

[Two to three substantial paragraphs]

3. **Test Results**

Testing Suites

Divide your tests up into test “suites.” That is, groups of tests that exercise the same aspect of your program, such as populating a database, reading from a database, or user interface testing. Give each suite a name (e.g. “Database Population”) and briefly describe what is being tested. Make sure that you test every aspect of the suite (e.g. boundary values, violation of preconditions).

Test Results

Report the following for each test. (Note: It is useful to devise a form on which to record the required information. This will not only help with the testing process, but your document may then include the filled-in form, with an introduction, for this section. This section may be lengthy.)

* Test number
* Description (purpose of the test)
* Input values
* Expected output
* Actual output
* Pass/Fail
* Comments

See the Testing lecture for a sample form.

Additionally,

* State the name of the tester for the particular test or test suite.
* Summarize those test cases from the above that you were not able to execute, for any reason, and briefly explain the difficulty.
* Summarize those test cases that ran and the actual result was identical to the expected result.
* Summarize those test cases that ran and the actual result was not the same as the expected result, but was nevertheless correct. Explain the discrepancy.
* Describe each defect detected. For each defect, outline either a suggested repair or the actual repair you made. In the cases where you successfully removed the bug, or at least tried to fix the bug but were unable to do so, briefly describe any changes you made to the program, including the modules, functions, classes, data structures, etc. affected. Try to explain the underlying logical cause of the defect in the program code.

Appendix A – Team percent contributions. Team sign off, Customer acceptance

**Team Review Sign-off**

Provide a brief paragraph stating that all members of the team have reviewed the document and agree on its content and format. Provide lines for typed names, signatures, dates, and comments for each team member. The comment areas are to be used to state any minor points regarding the document that members may not agree with. Note that there cannot be any major points of contention.

**Document Contributions**

Remember that each team member must contribute to the writing (includes diagrams) for each document produced.