

Guide to Preparing the SYSTEM TEST REPORT

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CSc 190 Senior Project

Department of Computer Science - College of Engineering and Computer Science

California State University, Sacramento

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1. INTRODUCTION

This is the System Test Report for the *<name of the project>* project sponsored by *<name of sponsor>*.

This project is being undertaken by the *<name of team>* development team. The team is comprised of undergraduate students majoring in Computer Science at California State University, Sacramento. The team members are enrolled in a two-semester senior project course required of all undergraduate majors. Successful delivery of the desired software product will fulfill the senior project requirement for the student team members.

PROJECT SPONSOR (*if there is more than one person serving as sponsor, list each sponsor*):

Name

Title

Company *or* Organization name

Contact information (phone number and Email address)

<NAME OF TEAM> DEVELOPMENT TEAM

List of team member names

Team contact information (phone number and Email address)

The remainder of this section is intended to introduce the reader to the document and to serve as a high level, executive-like summary to the document.

- 1.1 Purpose. The System Test Report summarizes the results of the designated testing activities identified in the System Test Specification document and provides evaluations based on these tests.
- 1.2 Scope. The System Test Report includes only the results and evaluations from testing the implementation of each of the system's Use Cases. The testing reported is that which was specified in the System Test Specification document.
- 1.3 Definitions, Acronyms, and Abbreviations

This subsection serves as a glossary for the document. All technical terms used as well as all acronyms and abbreviations used are arranged in alphabetical order. The purpose of this subsection is to provide the reader with quick access to the technical references used throughout the document.

All references to the software technology used should be included. For example:

ASP. Active Server Pages (*would require a definition*)
HTML. Hypertext Markup Language (*would require a definition*)
XML. Extensible Markup Language (*would require a definition*)

NOTE. *You will need to indicate with the appropriate symbol whether the products you reference are “trademarked” (using ® or ™) or “copyrighted” (using ©).*

1.3.1. Definitions. The following are examples of what might be included in this section:

Pass/fail criteria. Decision rules used to determine whether a software item or a software feature passes or fails a test.

Software Problem or Test Incident Report. A document reporting on any event that occurs during the testing process which requires investigation.

Test case specification. A document specifying inputs, predicted results, and a set of execution conditions for a test item.

Test design specification. A document specifying the details of the test approach for a software feature or combination of software features (i.e. a Use Case) and identifying the associated tests.

Test item. A software component (or components) that are an object of testing.

Test log. A chronological record of relevant details about the execution of tests.

Test plan. A document describing the scope, approach, resources, and schedule of intended testing activities. It identifies test items, the features (i.e. Use Cases) to be tested, the testing tasks, who will do each task, and any risks requiring contingency planning.

Test procedure specification. A document specifying a sequence of actions for the execution of a test.

Test report. A document summarizing testing activities and results. It also contains an evaluation of the corresponding test items.

1.3.2. Acronyms (*definition and/or explanations may need to be included for those acronyms that are not commonly used or understood*)

1.3.3. Abbreviations (*again, definition and/or explanations may need to be included for those acronyms that are not commonly used or understood*).

1.4 References.

Buckley, R. “Guide to Preparing the System Test Specification Document”, 2004.

IEEE Standard for Software Test Documentation, New York, IEEE Computer Society, 1998.

1.5 Overview. This subsection briefly describes the remaining contents of the document.

Section 2 contains the summary evaluation of the test results for each of the implemented Use Cases.

Section 3 describes whatever variances might exist between the items tested and their design specification and/or requirements specifications.

Section 4 provides an evaluation of the comprehensiveness of the testing process against the testing criteria specified in the system test plan contained in the System Test Specification document.

Section 5 contains the approval page. The signatures indicate approval of the system testing process and the results as documented in this report by all team members and the project's faculty adviser.

Appendix A contains the test logs for each of the testing sessions.

Appendix B contains all Software Problem or Test Incident reports organized by Use Case, that is, for each Use Case the reports are included in chronological order.

2. SUMMARY.

This section includes an evaluation of the test results for each of the implemented Use Cases. Include a subsection for each Use Case. For each subsection:

- 1) Identify all of the test items associated with the Use Case,
- 2) Cross reference the test cases from the System Test Specification Document,
- 3) Describe the environment in which the testing activities took place,
- 4) Reference the test logs in the appendix which were prepared by the team member (or members) assigned to test the Use Case,
- 5) Reference the test incident reports in the appendix that were prepared during the testing phase, and
- 6) Provide an evaluation of the testing.

3. VARIANCES.

This section contains a description of whatever variances might exist between the items tested and their design specification and/or requirements specifications. In addition, any variances from the test plan and system test specification should be identified. In all cases explain the reasons for the variations.

For example, conditions might have been identified during the testing that required additions to the invalid conditions identified in the design specification. As a result, test cases would be added.

If no such variances exist, a statement to that effect should be included.

4. COMPREHENSIVENESS OF THE TESTING PROCESS.

This section would provide an evaluation of the comprehensiveness of the testing process against the testing criteria specified in the system test plan contained in the System Test Specification document. For example, if there were features of a particular Use Case that were not sufficiently tested and explanation of reasons would be provided in this section.

5. APPROVALS.

Signatures indicate approval of the system testing process and the results as documented in this report. This section contains the signatures of each team member along that of the project's faculty adviser. The format should be identical that used in previous documents. The format would include the team name and then a list of each team member's name with a signature line and date line. Similarly, the faculty adviser's name and title (i.e. Professor) along with his or her affiliation should be included.

APPENDIX A: TEST LOGS

Test logs should be included which record the relevant details about the execution of the tests associated with the testing of each of the Use Cases. The log should include the following:

- Use Case being tested.
- Test items required for the testing of the Use Case.
- Name of team member or members doing the testing.
- Brief description of the testing environment (e.g. hardware, system software, resources available – memory, network, etc.).
- Beginning and ending activities, date and time for each testing activity.
- For each execution, record the visually observable results (e.g. error messages generated, aborts, and request for use action).
- Indicate whether the test was successful or not.
- Record what happened before and after an unexpected event. This would also include recording of circumstances that prevented the execution of a test procedure or failure to complete a test procedure.
- Indicate whether “Software Problem or Test Incident Reports” were prepared.

APPENDIX B. SOFTWARE PROBLEM or TEST INCIDENT REPORTS

The reports should be organized by Use Case, that is, the Use Cases should be organized in chronological order all Incident Reports that were prepared. The description of the incident should include the following:

- Inputs
- Expected results
- Actual results
- Anomalies
- Date and time
- Procedures followed
- Environment

- Attempts to rerun test
- Tester and author of the report
- Analysis of the incident/problem
- Suggested remedy/fix

The team may use the “Software Problem Report” form included in the appendix of the Guide to Preparing the System Test Specification document or a form designed by the team.