

Project 2: Testing a Software System

100 Possible Points

| 12/2/2022

Attempt 2



12/2/2022

Next Up: Review Feedback

Attempt 2 Score:
N/A



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Unlimited Attempts Allowed

Details

Goal

Your 3-person team has been assigned the task of performing independent verification and validation on another project as part of your organization's SQA activities. Your team will:

- Pick one group design project prepared for Project #1.
- Create the **skeleton of a Test Plan Document** (or a test specification) for that project.
- Decide on the key integration builds that will be needed for testing.
- For each build, plan the tests to be carried out (no need to identify specific test data for individual cases), and describe the test environment.

Please have one member in your group e-mail [Dr. Edmison \(mailto:bedmison@vt.edu\)](mailto:Dr.Edmison@mailto:bedmison@vt.edu) the group project (other than your own group's project) that you have selected for testing by **Tuesday, November 9**.

Assignment

The main task of your assignment is to create a skeleton or outline of a test plan document for another group's project. Your deliverable is only a "skeleton", because it will **not** contain any of the following information:

- A description of the testing schedule, resources needed, etc.
- Any unit test procedures or requirements.
- Specific test data values to be used in individual test cases.
- Expected results for each test case.
- Actual outcomes from tests.
- The other boilerplate that often goes into such documents.

Instead, your group will focus on the planning of integration and validation testing, which is the best place to start when you only have a high-level design.

Your "deliverable" has three parts: a brief description of scope, a plan for integration builds, a description of the tests planned for each integration build, and a description of the validation tests planned. You will write up your results as

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to the instructor. There is no minimum or maximum size for your web site, but it is expected that the result will take less effort (and probably size) than your Project #1 design.

1. **Test Scope:** Provide a brief description of the specific functional, performance, and internal design characteristics that you will cover in your test plan. Remember that you do not need to consider unit testing--only integration and validation testing.
2. **Test Plan:** Devise and present a series of integration phases and corresponding partial system builds for incrementally testing identifiable pieces of the system. You need to present the phases, describe what portions of the system each one contains, and then give a brief argument for why this is the best way to carry out the integration testing for the design you have chosen. For projects of the size pursued in this class, a handfull (3-5) phases may be appropriate, but you are welcome to divide phases into subphases if that seems necessary for the project you have chosen.
3. **Test Procedure for Build:** For each separate phase/build you identified in your test plan, you need to describe a specific test procedure. This should include a brief description of the main purpose of the build (i.e., which specific functional/performance/design characteristics are to be tested here), and a listing of the specific test case skeletons for the test cases you have planned to perform. There is no need to choose specific test data; instead, you can simply describe the form or structure of the test case (those details will be refined later in the life cycle), such as specifying the series of actions to carry out or the series of steps to take. In addition, for each build's test procedure, you should briefly describe the overhead software (drivers, stubs, etc.) that will have to be constructed in order to perform the tests you have planned.
4. **Validation Tests:** In addition to the integration tests, you also need to plan validation tests. Your validation tests should be organized around a traceability matrix that maps your validation test case skeletons to the requirements for the project. You can think of this section as just one more "test procedure for a build", but this time the build is the entire system.

Assessment

In grading your project, the following point breakdown will be used:

Test Scope	20
Integration Builds	25
Tests Planned	30
Validation Tests	15
Writing/Presentation	10
Total	100


Submission

Be careful in writing up your assignment. As with the other assignments in this class, clear communication and good use of English are very important; part of your grade will be based on the effectiveness of your presentation. Clear organization of materials within your assignment pages is also important.

Your final product will be a web site describing your design. Please prepare your assignment as a collection of HTML files for submission. You may also use PDF for some of your pages if you wish. Organize all of your files in one _____

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Your site should also be published on the web so that other members of the class can view it once the assignment is completed. If one of your group members has space and a web site of their own, you can publish the web yourself.

You may also create a [Google Site](https://sites.google.com)  (<https://sites.google.com>). Please e-mail [Dr. Edmison \(mailto:bedmison@vt.edu\)](mailto:bedmison@vt.edu) with the URL for your project when you submit your assignment.

✓ View Rubric

Project 2						
Criteria	Ratings					Pts
Test Scope view longer description	20 pts Excellent	16 pts Good	12 pts Satisfactory	6 pts Poor	0 pts No Attempt	/ 20 pts
Integration Builds view longer description	25 pts Excellent	20 pts Good	15 pts Satisfactory	8 pts Poor	0 pts No Attempt	/ 25 pts
Tests Planned view longer description	30 pts Excellent	24 pts Good	18 pts Satisfactory	9 pts Poor	0 pts No Attempt	/ 30 pts
Validation Tests view longer description	15 pts Excellent	12 pts Good	9 pts Satisfactory	5 pts Poor	0 pts No Attempt	/ 15 pts
Writing/Presentation view longer description	10 pts E	8 pts Good	6 pts Satisfactory	3 pts Poor	0 pts No Attempt	/ 10 pts
						Total Points: 0

<https://sites.google.com/vt.edu/askvtttestplandocument>

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