Deliverable 3 – Quality Assurance Plan

The report for this deliverable contains the quality assurance plan for the project including details of the unit test plan, integration strategy, and system test plan, as well as an update of the work plan. The key topics that the quality assurance plan should address include:

- A description of the unit tests to be performed
    - Which classes will be unit tested? Which classes will not be tested? Why (or why not)?
- A description and rationale of the chosen integration strategy
    - What is the order in which the various parts of your system are tested?
- A description of the system tests to be performed
    - Which tests will be performed to thoroughly test the complete system?

1   Unit Test Plan

The unit test plan clearly states which classes need to be tested and which classes do not need to be tested. This includes a rationale for why some classes are tested and why some are not tested. In addition, a general description of the unit tests discusses the techniques you are using to derive test cases for the unit tests and which tools you are using to support the testing activities. To the extent possible, include a quantification of your testing goal (e.g., N% test coverage). Furthermore, discuss how often your tests are executed, i.e., what triggers your tests to be run? Finally, describe any differences between your desktop/laptop app, mobile app, and web app when it comes to unit testing.

2   Integration Strategy

The description of the integration strategy gives a rationale for your choice of integration strategy, and clearly states the order in which your classes and subsystems will be tested. If applicable, explain which tests you are planning to write in addition to the unit tests. To the extent possible, include a quantification of your testing goal (e.g., N% test coverage). Again, state any tools you are using to support the chosen integration strategy, and describe any differences between your desktop/laptop app, mobile app, and web app in terms of your chosen integration strategy.

3   System Test Plan

The system test plan describes how your whole system is going to be tested. You are required to describe how to manually test your desktop/laptop app, mobile app, and web app. The same system test plan should apply to all three apps. The system test plan includes a list of test situations (i.e., the features of the system you are testing). Do not forget to include exceptional cases in addition to the "all-is-ok" main scenario as separate test situations. Include a rationale of how you came up with your test situations. To the extent possible, include a quantification of your testing goal (e.g., N% test coverage). Choose two interesting test situations and provide detailed test cases for them for one of your three apps. Each test case must specify the input data required for the test, the exact steps to follow, and the expected outcome of each step. Each test case must be detailed enough, so that a test engineer can perform the test without your help.

4   Updated Work Plan

Your updated work plan shows any changes to the previous work plan, i.e., the updated work plan shows the previous entries as well as the updated entries. The work plan must define the completed and remaining iterations of your implementation until the final deliverable at the end of the term. For each

completed iteration, indicate which requirements were addressed, report the effort needed to complete the iteration, and the date when the iteration was completed. For each upcoming iteration, indicate which requirements are addressed, provide an estimate for the effort needed to complete the iteration, and the date when the iteration is to be completed.

Submission

The project is to be done in the same teams of FOUR or FIVE students as for the previous deliverables. For Deliverable 3, your team is required to hand in the **report** by **Monday, March 21, 2016 23:30**. The report must be either an MSWord file or a PDF file. If you are using an application other than MSWord, convert your report first to either a PDF file or a DOC(X) file.

Each team member must make contributions to the deliverable. A team member who does not contribute to the deliverable receives a mark of 0 for the deliverable. A team member may optionally email a confidential statement of work to the instructor before the due date of the deliverable. A statement of work first lists in point form the parts of the deliverable to which the team member contributed. In addition, the statement of work also describes whether the work load was distributed fairly evenly among the team members. A statement of work may be used to adjust the mark of a team member who is not contributing sufficiently to the deliverable. It is not necessary to send a statement of work, if a team distributed the work for the deliverable fairly evenly and each team member contributed sufficiently.

Marking Scheme

Part of Assignment	Marks
Unit Test Plan:	26
Description (which classes to test, techniques, triggers, differences)	12/26
Rationale	6/26
Tool Support	4/26
Test Coverage	4/26
Integration Strategy:	26
Description (chosen integration strategy, order, additional tests, differences)	12/26
Rationale	6/26
Tool Support	4/26
Test Coverage	4/26
System Test Plan:	38
Description (test situations)	12/38
Rationale	6/38
Test Coverage	4/38
2 Detailed Test Cases	16/38
Work plan for completed and remaining iterations	10
Total Marks:	100

The total mark may be adjusted based on the actual contributions of a team member to the deliverable.