

## SENG 422 TA Lab Assessment Report on Project Part 1

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### Project Part 1 Assessment Requirements:

1. The following groups have been evaluated for part 1 of their project.
2. It was asked to submit reports in hardcopy and electronic copy (1 report per group).
  - a. For the purposes of determining gaps of the system and better report presentation an oral assessment was conducted between group members and the TA. This was required to mark the hardcopy version where specific comments were made on some or all pages of the report.
3. The following comments are identical to the written comments in the hard copy, relevant to both electronic and hardcopy versions of the reports.
4. From now on, **bonus/extra marks** will not be considered as of course regulations and rubric (proj. part 1 however within the grading limit was considered), and if any perfect marks will be considered within the assigned presentation of the system according to the project requirements, team performance based on student solutions for an identifiable gap in the system. This is a solution presented in addition to project specifications as the system evolves in the SA quality context, to be clarified during the orals as well as written.

### General and specific comments on Team No. 1:

- 1- Introduction is well-presented
- 2- Sec. 2.1. among the functional requirements, it is encouraged to provide a one line example for the reader of the report, e.g. "unique identifier such as..." for FR5, and similar parts in FR13 of the report. Although these were discussed in the subsequent sections, it is encouraged to promise these examples/discussions in terms of a forward referencing; FR16 How about public users in addition to the key stakeholders for information access or read purposes as **future usage** of the system which is a requirement for this part. This entails FR18 where "access control" is of a **security issue** between users. It was asked in person for final evaluation that what kind of access control model (ACL) is going to be used. This is useful to be specific in designing a structured security system i.e. documentation purposes.
- 3- Sec. 2.3. explanation of 0.1% worst case downtime vs. 99.9% uptime was asked to provide an explanation/example in the report in order to address the problem relative to an event (as an example). This was, however, elucidated during the oral discussion.

- 4- 1% Bonus mark granted for the cause and effect graph resulting in the quality attribute tree. So this was properly presented and structured in the report. We have discussed whether future enhancement will support **n > 1000** concurrent users as part of the future enhancements, which is not visible in the report, but elucidated during oral.
- 5- 2% out of 12% granted for part 1.1.
- 6- Sec. 3.1.2, first sentence, what if "in case of not being correct according to GSI standard" as my comment against survey manager ensuring land surveys being carried out "correctly". An example clarifying can help the statement/claim made in this report.
- 7- Relevant to point # 2 above, on p.7 of the report, again the password storing done in secure way, could have been further exemplified.
- 8- FR19 Just admin activities must be logged or there are other activities to be logged such as events taking place in the system that could have an impact on the system? Although proj. specs, limit the system to log the macro events specific to this actor (admin) of the system, but micro events is of concern when it comes to performance especially in project part 2 discussing time/performance aspects of the system.
- 9- pp.8 and 9 have identical steps for the two actors relevant to the use case diagram presented in the report. The question is, will these two flows occur concurrently or asynchronously? The logic behind it was discussed and clarified orally by the team members. However, it is required to be more visible on this point in part 2 of the project.
- 10- Potential user account loss or data loss entirely (worst case no matter how improbable, is still a potential probability of this type of event to occur)... what will be the solution. Innovative ideas could be proposed although redundancy is correct and typically sufficient, but other solutions could advance the strength of the system in question.
- 11- Pre-conditions on p.16, how many at most pre-existing checklists are available? Why? (the logic behind it) this was discussed orally. It is expected to slightly mention in the report or via an example.
- 12- On p.18 the "N/A" item option compared to other options on the checklist is not properly exemplified. Although the project specs just mentions it, it will help the reader/evaluator of the report to see what an N/A condition would be for example.
- 13- Another 2% granted for the second portion of project part 1.
- 14- The term "dirty" checklist could have been expanded upon for the reader on p. 20. This was orally explained.

- 15- Pick or classify worst case scenarios vs. best case in your system + solution in a table which provides a better and focused presentation of the point on the scenarios up until page 23.
- 16- Sec. 4 is well-presented.
- 17- Sec. 5, the only pattern used in MVC and other patterns such as observer, etc. will not be used. This was clarified "why not other patterns?..." during the oral.
- 18- Data management in Sec. 5 will lead to async. vs. sync. issues which will be revisited in project part 2 report.
- 19- Another 2% granted based on the last three points.
- 20- 1% on trade-off's granted as well for the last page where technologies are discussed for certain data management and access issues.

**Summary comments on Team No. 1:**

- 1- Sequence diagram in order to clarify time cycles between tasks and scenarios is not given, although this is not asked in the report but I have established the necessity of it to be included either here or in the next report which is expected to be provided in detail for the second part in order to assess the system properly on e.g. performance concerns.
- 2- The report has been mostly technology-oriented presentation, and least provided discussion and examples given on the specific SA quality aspects of the system as raised in the previous section.
  - a. These are important points to lay out the foundation plus appropriate preamble to part 2 of the project, such as performance which is the concentric/core discussion of that part.
  - b. To this account, task prioritization in terms of timing not fully highlighted compared to other groups in this report.
- 3- System evolution not discussed as asked in the last paragraphs of part 1 in order to grant more marks as well as future expansion or system prospects in detail compared to other groups reports.
- 4- Based on the last 2 points, - 1% is deducted from the total mark. In total with bonus this report gets 8% as the group asked to be hereby included.

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**Total without extra marks:** 7% as all members more or less equally contributed (**Note:** this excludes those who are developing the code, their

hours assigned to this task are not relevant to project part 1, and will become relevant at the implementation stage).

**Extra mark** 1% due to a good oral and presentation of their work as the report was discussed per individual. Such marks may not be granted in future endeavours/presentations.

**Total: 8% final mark.**

**General and specific comments on Team No. 2:**

- 1- All sections have been well-presented except for a few minor points:
- 2- On. p.4, a "compromised system," at that every moment, what is the comprised of in terms of components to address the problem? This wasn't properly exemplified but clarified during the oral and perhaps part 2 of the project will have this explicated accordingly.
- 3- On. p.5, what kind of ACL model is obeyed? Although the use case steps have been clarified this needs to be specified for a structured report.
- 4- Diagrams have been well presented, dissected and analyzed with a few minor reference details but all clarified during oral.
- 5- CRUD also mentioned relevant to the patterns of choice in Sec. 4.2 of the report. How many design patterns in total this system will include is not quite there. Perhaps as the system evolves this will be concluded.
- 6- Scalability section was all explained although trade-off's weren't properly clarified but discussed in the Scalability section, sec. 5.2 of the report. So during oral since this was a minor point, it was asked to update the report shortly afterwards creating a section to highlight their discussion on trade-offs.
- 7- Well-defined sequence and priorities in terms of a task queries table on pp. 28-30, which gains 1% extra.

**Summary comments on Team No. 2:**

- 1- Excellent report and well-written with a few minor gaps as highlighted above.
  - 2- Future enhancement/usage has not been fully highlighted but touched upon in terms of CRUD and DB management relative to performance. Perhaps as the system evolves, such as in part 2 of the project, this aspect of the system will be more visible.
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**Total without extra:** 8% as all members more or less equally contributed (Note: this excludes those who are developing the code (in this case, the "performance engineer"), their hours assigned to this task are not relevant to project part 1, and will become relevant at the implementation stage).

**Extra mark** 1% due to a good oral and presentation of their work as the report was discussed per individual. Such marks may not be granted in future endeavours/presentations.

**Total: 8% final mark.**

### **General and specific comments on Team No. 3:**

- 1- All sections have been presented with gaps but highly innovative in terms of SA solutions on system concerns and quality attributes of interest according to ISO 9126 standards (or ISO 25010:2011).
- 2- Use case diagram must be in the first section and not the Appendix. The Appendix should merely serve the detailed version of diagrams, statistics, etc. as an extension to the discussion. Hence, when the reader is interested to know the specific/intricate details will refer to it if needed. Although this is deemed as a minor point, but for future presentation of a structured report this is required expectably.
- 3- A good strategy was presented in flow event 1.7. However, prior to that, flow 1.4, publishing the creation of checklists is critical according to the seq. diagram presented in sec. 4 of the report. So will this be published online or interface or distributed? This was explained during the oral.
- 4- Tables could have been represented in a more focused manner by creating a worst case vs. best case scenarios. Overall presentation of the scenarios was good by proposing well-defined tactics in order to mitigate an issue in the system with a significant impact on a quality attribute e.g. fault-tolerance were most worst case scenarios in terms of events might occur, making the system erratic in its performance.
- 5- Concurrent access of data by users will create memory management issues. The team cleverly came up with an innovative solution as far as it could be implemented "**load balancing**" and during the oral, from the micro perspective of memories having impact on the macro perspective through a database, a cache layer was suggested to complemented their diagram in Sec. 3.1.
  - a. Scalability and system prospects were well-discussed and theoretical issues in order to measure response and CRUD times based on

algorithmic complexity measure have been touched upon in Sec. 3.2 onward.

- 6- 2% extra mark based on the good presentation of the solution as well as sequence diagram granted, although some bits or notations e.g., "200 OK" in Fig. 4.1, unclear, these were pointed out during the oral to be corrected or defined in future reports as we revisit the solution(s).
- 7- Better referencing should have been established in this report, but since the number of team members is just 2, such trivial short-comes will not have a major impact on the overall mark on this part.

**Summary comments on Team No. 3:**

- 1- Excellent solutions and idea presentation for an evolving system architecture, despite some gaps visible in the report, can be simply revised for a better presentation.

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**Total without extra:** 7% as all members more or less equally contributed. (Note: this excludes those who are developing the code, their hours assigned to this task are not relevant to project part 1, and will become relevant at the implementation stage).

**Extra mark** 2% due to a good oral and presentation of their work as the report was discussed per individual. Such extra marks may not be granted in future endeavours/presentations.

**Total: 8% final mark.**

Keep up the good work!  
Cheers,  
Philip

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