Assignment 3

System Analysis Specification

Due 5.00pm Wednesday Week 8 (30/08/2017)
Weighting 25%

1. Task overview

In this system analysis specification (software requirement specification or SRS), you model a software system by providing solutions to the problems identified in (client) business analysis (SFIA 2015) and (software) user experience analysis (SFIA 2015) based on your interview or meetings with your client. You should use appropriate methods and tools (SFIA 2015) or modelling language for your specification.

The SRS is one component of your software system or the final software product. You should refer to the IEEE standards in the appendix for quality targets of the systems development management (SFIA 2015).

Software designers will complete the software design specification (SDS, Assignment 4) according to this SRS. While the SRS specifies **what** the software will do, the SDS specifies **how** the software does them.

This assignment is teamwork.

2. Objectives and marking criteria

This assignment consists of the assessed details, which are outlined as objectives bellow. However, each product is different from any of others. You may need to include other details. If this is the case, you should discuss it with your supervisor so that the supervisor is aware of any changes and adapt marking to them.

2.1 Objectives

The objectives of this SRS are:

- model system functions,
- model processes or activities,
- model interaction,
- illustrate user interface,
- identify nonfunctional requirements (Examples include usability requirement, reliability requirement, safety/security consideration and hardware limitation.), and
- identify other issues (Examples include definition of special terms, assumptions and dependencies, available data or contents, and other information for designers.).

2.2 Marking criteria[1]

Category	Specific criteria	Maximum marks
Functionality	Conventional data flow diagrams (structured approach) or use case diagrams (OO approach) (20)	40
	Conventional entity relationship diagram (structured approach) or class diagrams (OO approach) (20)	
Process/activity	Conventional process algorithms in structured English (structured approach) or activity diagrams (OO approach) (12)	12
Interaction	Conventional data flow specifications (structured approach), or sequence diagrams or collaboration diagrams (OO approach) (8)	8
User interface	Useable screen formats, page or window layouts, content of any menus of reports, and/or functions and data involved in each page or Window	8
non-functional requirements	logical and relevant description in professional terms	8
other issues	logical and relevant description in professional terms	4
Specification professionalism	Logical organisation of contents (5)	20
	Consistent and understandable contents (5)	
	Professional and unambiguous terms (5)	
	Traceable documentation (5)	
Total mark		100

[1] You are recommended to read section 4.3 of IEEE Std 830 for characteristics of good documents.

3. Deliverables

The deliverables required for this assignment are

- a single Word document of SRS,
- work logbook of each team member, and
- updated project timeline (Gantt chart).

You should refer to Assignment 1 for details of assignment cover sheet and document cover sheet.

4. Assignment submission

You are required to send a single email to your supervisor, attaching one zip file of the deliverables. You should refer to Assignment 1 for details of file naming requirement.

References

SFIA 2015, SFIA Framework, online available at https://www.sfia-online.org/en/sfia-6, accessed 11/06/2017.

Appendix

You are advised to read IEEE Std 830-1998 (*IEEE Recommended Practice for Software Requirements Specifications*) for the structure of an SRS, if you are not sure of an appropriate structure. This standard is comprehensive for large software products. Some sections may not be necessary for your product while you may include other contents or sections. You should read Section 4.3 of this Standard for good characteristics of documents for all project documents.

You can look up IEEE Standard 610 (*IEEE Standard Glossary of Software Engineering Terminology*) to understand the meanings of the terms that you are not sure of.