Assignment - Project

CSE 406 – Software Engineering

Submit in Class

Milestone	Submission	Due Date (tentative)
Requirement Analysis	A. Proposal/Requirement document	Oct. 4 and 11
Specification	B. Specification document - structured system/object-oriented analysis	Nov. 1 and 8
Design	C. Design document - architecture design	n/a
Implementation and Integration	D. Implementation - Source code, testing, USE CASES	Nov. 29
Demo Final Paper/Source Code	E. Presentation, User guide - INSTALLATION guide	Dec. 14 Dec. 16

Location/Time for final presentation: IT/BT Room 203. June 14, 18:00~22:00

**Submission for A:

- Please use the IEEE paper template (doc or latex). You can download it here: http://www.ieee.org/conferences_events/conferences/publishing/templates.html

- Make sure to include the title of your project, your names and group name.
- In abstract, provide a summary of your project proposal. More details should be given in the context.
- List out your requirements and explain each. The document organization is completely up to you. However, I would suggest something like:

  Paper Title – project title
  Authors – members, group name
  Abstract – summary of project proposal

Role Assignments (till the middle of the term):

Roles	Name	Task description and etc.
User		
Customer		
Software developer		
Development manager		

I. Introduction
your motivation, problem statement (client's needs),
research on any related software

II. Requirements
A. Requirement 1
B. Requirement 2 …

**Submission for B:

- Setup a version control system for your code management. You can use any of the followings or other similar services:

  https://github.com/
  https://about.gitlab.com/
  https://bitbucket.org/
  https://education.github.com

- For your documentation (A&B), you have to create a latex file and upload it to the version control system. Please refer to the latex sample in IEEE paper template url.
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III. Development environment

A. Choice of software development platform

Which platform and why? (e.g., Windows, Linux, Web, or etc.)
Which programming language and why?
Provide a cost estimation for your built.
(including any purchase of software/hardware)

Provide clear information of your development environment.
(e.g., version of software, OS version, your computer resources)

Using any commercial cloud platform if you can.

B. Software in use

Any existing software or algorithm in use? (doing a similar task as your proposal; provide a proper reference if there is any)

C. Task distribution (If you want, you can provide this later at the next phase - design)

Which member is responsible for what?

IV. Specifications

For all requirements above, you should provide details of how you can achieve each.

A. Requirement 1

Describe a detailed description of implementation process (e.g., pseudocode level) under your development environment. Any type of graphical representation is also recommended.

B. Requirement 2

Like-wise

At this point, you can change anything in the introduction/requirement sections and make changes accordingly in the upcoming section. DO NOT hesitate to change.

**Submission for C, D (together):

V. Architecture Design & Implementation (partial)

A. Overall architecture

Provide a figure of overall system architecture (modules or software components, any relationships between)

Your figure should include the following (recommended, feel free to choose any way that you like):

* Box – a module or software component. Each box has a title, description, and its required classes (we will discuss more in class)

* Directed edge – relationship between the modules describing which module is used where
* Labels – functions or relationship counts on top of each edge (optional)

B. Directory organization

Provide your directory organization and information of source code files (a table format is recommended, feel free to choose any way that you like):

Directory	File names	Module names in use	Etc.
/project/src/ui	ui.c, ui.h	Module 1	
/project/src/db	db.c, db.h	Module 2	

C. Module 1 or Software Component 1 or Class Name 1

Provide a detailed description of each module: purpose, functionality, location of source code, class components, where it's taken from, how/why you used it, and others. Any type of graphical representation is also recommended.

D. Module 2 or Software Component 2 or Class Name 2

Like-wise

VI. Use Cases

You have to provide multiple use cases to demonstrate what you have implemented. Each use case should clear state that which software requirement/specification to satisfy.

A. Use case 1

Provide a flow chart or step-wise description on how to use a function of your software.

Provide a snapshot (screenshot) of each use case if possible.

B. Use case 2

Like-wise (we will discuss in class)

Again, you can change anything in the introduction/requirement/specification sections and make changes accordingly in the upcoming section. DO NOT hesitate to change.

**Submission for E:

VII. Software Installation Guide

You will describe how to install your software. There are hundreds of examples on the web. Feel free to find anything that suits you the best. Here are a few examples.

http://technet.microsoft.com/en-us/library/bb742421.aspx

http://www.olympus.co.jp/en/support/imsg/digicamera/download/manual/accessories/adi_cm41i_e.pdf

More examples will be discussed in class.

VIII. Discussion

Write one or more paragraph(s) to describe any difficulty and experience you had. No less than 300 words. (e.g., communication difficulties in team, any non-technical difficulties, things to improve, and etc.)

Submission:

- Print a copy of your document and submit in class.

Important Dates and Final Submission:

A. Final Presentation & Paper - June 14. (IT/BT Room 203, 18:00 ~ 22:00) *Submit in Class*

Print your presentation file and final paper and submit them in class. Each group has 15 minutes to present their work. It will be peer-reviewed. If you have a demo to show, pre-recording is also recommended (e.g., YouTube). If you need a laptop for your demo, then you should bring it on your own.

B. Electric Submission - June. 16. 11:59 pm. *Submit via Email*

Submit your final paper, presentation file, and your code repository URL via email (to: youngjoon@hanyang.ac.kr). Email subject should be "[SE] groupname-final-project".

No late submission is allowed. It is your responsibility to meet the deadlines.