

CS3733-D01: Software Engineering

Requirements Development Project (Group)

Due: Friday, March 30, in class

1 Project Description

A local startup needs software for managing its technical support data on its first product, a line of Web tablets. The software must allow employees and customers to add, organize, and retrieve technical support information. The company wants the software ready in nine months, when the product is scheduled to start shipping.

Your company has contracted with the startup to build this product and has assigned your group to produce a requirements specification for the new software. In completing this task, you will work with a committee of three people from the startup who have been charged with overseeing this project:

- **Ned Nichols, Head of Technical Support:** Ned has recently joined the company to head up the technical support division. He was a senior technical support specialist in his previous job at a company that developed products for wireless networking. Ned finished half of his Bachelor's degree in Computer Science before dropping out to join the high-tech revolution.
- **Harry Wilkins, Product Engineer:** Harry helped found the company after finishing his Masters degree in Electrical and Computer Engineering. He had never worked in industry before founding the company. He contributed heavily to the design of the tablet and will be overseeing product testing once the prototypes have been completed.
- **Susie Macintosh, Associate Head of Customer Service:** Susie comes to the company from a large telecommunications firm, where she worked as a manager in the customer support division. She has an associates degree in Marketing and Management and extensive experience dealing with frustrated customers.

2 Project Logistics

In order to develop the requirements specification, your group must meet with the committee members to find out what they want from this new software. The course staff will play the roles of the startup's committee members: Kathi plays Susie, Mike plays Ned, and Choong-Soo plays Harry. You will meet the committee members individually, in scheduled 15-minute slots. The assignments web page contains instructions on signing up for appointments. Each group is allowed up to two 15-minute meetings with each committee member over the course of this project.

Guidelines and rules regarding these meetings

- The meetings will be held wherever the corresponding person holds office hours; *i.e.*, meetings with Susie take place in Kathi's office (FL 145), and meetings with Ned and Harry take place in the TA office, FLA20.
- Your entire group does not need to attend each committee member meeting. You may send subsets of your group as you see fit, but your group is still limited to two meeting slots per committee member.
- Members of up to two different groups may attend a committee member meeting (for sake of scheduling). Members of the two groups should not collaborate outside of the shared meeting (see the collaboration policy, Section 6).
- The course staff will be "in character" during and only during committee meetings. This means that you cannot ask us course-staff style questions during committee-member meetings and you cannot ask us committee member questions outside of your meeting slots.

- You, not the committee members, will run the meetings (think of them as interviews). You must come with questions to ask the committee. The committee member will conclude the meeting 15 minutes after your scheduled start time or when you run out of questions, whichever comes first.
- You may not reschedule missed meetings.

3 What to Turn In

Submit a hard copy of a computer-formatted requirements document containing the following information:

- A summary of the desired features for and concerns about the software that you gathered from the committee during the interviews.
- Product objectives: a summary of the goals your software aims to achieve.
- Functional requirements: Use cases sufficient for the committee to evaluate your proposed product.
- Non-functional requirements: summary of requirements and how you propose to satisfy them.
- Screen mock-ups showing the key features (not the full design) of the user-interface (may be hand-drawn).
- Justification of requirements decisions. Committee members may have contradictory or overambitious goals for the software. Describe any such conflicts or unrealistic features you uncovered. For conflicts, describe the solution you chose, and why you chose it; for unrealistic features (or other mentioned features that you chose not to implement), explain why you chose not to include them in the design.
- A glossary of terms used in your document.
- A daily time log detailing how much time your group spent on the project (both individually and in group meetings). Divide the time log into types of activities: revising use cases, writing document, trading email to set up meetings, etc.

4 Miscellaneous Notes

- This project focuses on the requirements phase only; do not perform an object-analysis or any other system design work for this project.
- Diagrams and screen mock-ups included in your document may be hand-drawn, but they must be neat and legible.
- Keep in mind that during committee member meetings, we are playing the roles of real clients with varying technical expertise. One goal of this assignment is to give you experience communicating with clients who lack a technical CS background. Keep that goal in mind as you plan what questions you will ask during your meetings.
- The use cases that you describe should not necessarily be limited to situations that the committee describes. If you foresee situations that this software must handle that the committee does not describe, raise it in a meeting or include a use case for it. This goes to the completeness of your use cases in the grading section.

5 Grading Criteria

This project is worth 20% of your final grade. In grading your document, we will check whether you covered all of the items listed in Section 3 to a useful degree of detail (including whether we can easily find the items in your document). Some particular issues we will be looking at include:

- Thoroughness of the information you gathered from the committee. While we don't expect everyone to hit all of our desires for the new system, you must demonstrate that you asked enough questions to understand what kind of system we were looking for.
- Readability of the use cases and glossary to non-technical users.
- Consistency and completeness of the use cases and glossary.
- Realism and verifiability of the requirements and stated constraints.
- Clarity and correctness of writing. Poor quality writing, as well as spelling and grammar errors will count against you.

6 Collaboration Policy

No collaboration across groups is allowed on this assignment, other than the interactions that will occur during shared meetings with the committee members. You may not share questions to ask at meetings, information gathered from meetings, or any other information pertinent to this project. Use caution when posting questions on this assignment to the class mailing list (general clarification questions are fine, questions specific to the requirements document that your group is developing are not). You may, of course, consult the course staff regarding the project.