

# HW 1 (team): Requirements Assignment

## Overview

In this homework, your team will produce requirements for your assigned project.

You must turn in a PDF document containing the following parts:

- Requirements definition
  - English descriptions of functional requirements and non-functional requirements in terms of the environment (approx 1 page)
  - Structured descriptions of the most important 3 use cases (approx 3 pages)
  - UML class diagram or ERD showing the important entities (and their attributes) in the environment where the system will execute (approx 1 page)
- Requirements specification
  - English descriptions of functional requirements and non-functional requirements in terms of the system's interfaces (approx 1 page)
  - Dataflow diagram showing how the system relates to entities in the environment (approx 1 page)
  - Message sequence charts, or state charts, for the most important 3 use cases (approx 3 pages)
- In one sentence, briefly summarize whether your customer was willing and able to meet with you on Tuesday or Wednesday. If your customer cannot meet with you on either of those days, then you are free to proceed on the basis of the Vision Statement without further customer input on this homework.
- Briefly summarize the contribution of each of your team members.

## Some comments

Organize team communications however you feel works best. You can use email, or various Google tools, or other tools of your choice for sharing files. Be careful that 2 people are not modifying a file simultaneously. You could lose work!

Typically, the requirements definition would also describe the rationale for the system, but you don't need to include that here, because the customer already wrote up the rationale in a Vision Statement.

Your work will be graded based on whether you appear to have done a thorough job of producing valid, verified requirements. The page estimates above total approximately 10 pages, but you may turn in up to 15 pages at your discretion.

You can divide this work however you like among your team, but here is a suggested approach that would complete the assignment very efficiently...

- Tuesday, meet as an entire team with the customer to ask questions about aspects of the Vision Statement that puzzle you.

- Wednesday, three team members each write up one use case. Send these results to the rest of the team.
- Thursday, team members meet to read the use cases. Together, identify the key entities in the environment. Then, one person draws the UML class diagram (or ERD) while the other team members draw the dataflow diagram. Send these results by email/create a git project and share to the rest of the team.
- Friday, team members each write up a sequence or state chart for their respective use case.
- Friday, team members meet to read all the earlier results. Together, they write the English descriptions, which they email to the entire team.
- Saturday, one team member edits all of the documents together so that they are consistent.

The reason for emailing all materials to the entire team is that everybody on the team will be graded on the entire assignment. Therefore, all of you need to keep your eyes on what your teammates are doing and act as quality control. If you don't like something that you see, give each other constructive suggestions. Also, if somebody on your team does a particularly good job, tell him or her!! The happiness and productivity of your team is your responsibility.

## **Submission**

Your homework must be submitted as a PDF file and submitted in Canvas by the due date.