1 Assignment Information

1.1 WHAT TO DO?

This is a <mark>TEAM</mark> assignment. You will be developing the C or Customer Requirements. The critical part is development of section 2.2. <mark>USE THE TEMPLATE PROVIDED</mark>

1. Read this document carefully. More detailed instructions given later in this doc.
2. Work together as a team and develop text descriptions of use-case diagram(s), and sequence diagrams.
3. Put this information into sections 1 and 2 of the SRS document (Template Attached).
4. ~~Work on feature outline.~~ <mark>~~NOTE: all parts of assignment to do with features have been crossed out for 2012.~~</mark>

NOTE: Estimated Time for Assignment: (6 hrs * 4)

1.2 WHAT TO SUBMIT

This will make it easier to provide feedback and to review your work.

- <mark>Create a SINGLE pdf with</mark>
  - Title sheet with title A3 SRS-1 + team number
  - Minutes of Meeting(s).
  - partial SRS (with sections 1 and 2 completed).
  - ~~One or two pages of Feature outline.~~
  - Put this pdf file IN your zip file and submit the zip file on blackboard.

- <mark>Create a zip file</mark> of source files for all of the above items (i.e word or text files and images etc) <mark>INCLUDING the single PDF</mark> and UPLOAD to blackboard

2 Objectives

In the previous assignment (assignment 2), we tried to identify various aspects (like the actors, use-cases, and user-interfaces) for the Project. In other words, we wanted to identify who will use our system, in what ways they would use it, and how the system will be constructed to interact with its users.

To illustrate and document these concepts, we use the use-case diagram to show who will use the system and how, and we use screenshots and screen flow to show how the

system will interact with its users. This information is needed to write the C-Requirements section of the SRS.

This assignment continues our transformation of the "Project" into a concrete functional software system. Here, we focus on more details of the user-system interaction and begin preparation for the elicitation of detailed requirements. We will create more detailed versions of the use-cases and look at the steps of the interaction between the system and an actor. We will represent this interaction textually, by describing use-cases, and graphically by creating sequence diagrams. Use-case text descriptions and sequence diagrams convey essentially the same information in different forms.

After validating high-level requirements with the customer, the next phase is to use these to create a more detailed list of requirements for the system (or the D- Requirements). This is done in conjunction with both customers and developers. However, we will defer that work for next assignment. In this assignment, instead of actually writing detailed requirements, we will merely do some preparation work to make writing those requirements easier in the future (that will be assignment 4). NOTE: WE will not do this work in this semester.

Thus, the major goals of this assignment are:
- To introduce students to the later phases of developing customer requirements (C-Requirements).
- To have students use UML diagrams to convey essential information about their project.

- To have students work in a team environment.
- To improve students' communication skills.
- And of course, to continue make this project concrete and manageable.

3 Detailed Instructions for this assignment

3.1 STEP ONE: COMPLETE SECTIONS 1 AND 2.1 OF THE SRS

1. Copy the SRS template.
2. Fill out the Title page.
3. Complete Section #1 as per directions IN THE TEMPLATE.
4. Complete Section #2.1 as per directions IN THE TEMPLATE.

3.2 STEP TWO: WORK ON TEXT DESCRIPTIONS FOR SECTION 2.2.

1. Choose 8 use cases (i.e. 2 per team member). <DO NOT choose trivial usecases please>
2. For each of these use-cases, construct a FORMAL step-by-step text description to explain how your system and the actor(s) interact. Use one page per text description. In each description, make sure to include the following items:
   a. ID and Name of the use-case (ex: UC1 Browse library)
   b. Brief description of the use case – include the goal (two or three sentences).
   c. Actors (List)
   d. Main flow (describe step by step) – number each step.
   e. Alternate flows (number correctly as described in class).
   f. Preconditions (if any)
   g. Postconditions (if any)

3.3 STEP THREE: WORK ON SEQUENCE DIAGRAMS FOR SECTION 2.2

1. For **each use case textual description** created in step two above, convert the text to a sequence diagram. Each line in the text description should become one or more events in your sequence diagram. Use one page per sequence diagram. << Thus, you will have two pages per usecase: one page text desc and one page sequence diagram>>.
2. Follow UML format.
3. NOW complete rest of section 2.2 as per instructions in the template.

3.4 STEP FOUR: WORK ON SECTION 2.3

1. Complete section 2.3 as per instructions in the template.
2. THIS COMPLETES work on the SRS template for this assignment.
3. Revise this document and submit.

3.5 ~~STEP FIVE: DEVELOP FEATURE OUTLINE~~

1. ~~What features should the system have to be able to provide the services as described by the use cases? For example: a user may want a CAR to NOT SLIP IN THE SNOW. That is a use-case. The car would have feature like ABS (Anti-lock braking system) to provide that service.~~
2. ~~Brainstorm and make a list of as many features as you can think.~~
3. ~~Begin clustering similar features into groups by behaviors, actors, and other ways you can think of. It is permissible for features to be member of more that one group.~~
4. ~~Recursively repeat this grouping until the features can no longer be grouped.~~
5. ~~Choose a particular grouping style that seems to suit the system the best, and convert that feature hierarchy into an outline representation with numbered headings and sub-headings.~~
6. ~~Include non-functional features such as reliability, security, and performance etc.~~
7. ~~We are expecting one or two pages of this outline.~~