

**Concordia University  
Department of Computer Science  
and Software Engineering**

**SOEN 341 --- Software Process  
Fall 2006**

**Homework Assignment #2**

**Instructions**

- This is an individual assignment.
- Similar questions (among others) will be asked in the quizzes.

**1. [30 points]** Create a use case diagram based on the following problem specification concerning an elevator controller system:

*Each elevator has a set of floor buttons, one for each floor. Any person inside the elevator can press the floor buttons. The buttons illuminate when pressed and cause the elevator to visit the corresponding floor. The illumination is cancelled when the corresponding floor is visited by the elevator. An emergency button can also be pressed, in which case a technician will be called automatically to fix the elevator. The technician can use a key to activate or deactivate the elevator, which deactivates all floor buttons. The basement, because of security reasons, is accessible only by the security officer by using a key that unlocks the basement floor button. All the elevators are controlled by a central/external unit at the reception desk.*

**2. [30 points]** Inspect Section 4 the example document on the web page (“Example using another template (all phases)”). Identify what kind of UML diagrams you will be using in your second deliverable in the project for : (1) architectural design [5 points], (2) module interface design [5 points], and (3) detailed design [5 points]. Give an example of each of such diagrams [3 X 5 points].

**3. [20 points]** List two items of criticism or problems pertaining to how your project has been conveyed up to now [5 points]. Explain what impact these problems had on the project [5 points]. Explain what better approach you would use to overcome this problem if you face it again in the future in another project [10 points].

**4. [20 points]** List and explain two risks inherent to what remains to be done in your term project [5 points]. Explain what is the possible impact of these risks [5 points]. Explain what solutions or precautions can be used to avoid incidents related to this risk in your project [10 points].