SENG 330: Object-Oriented Software Development
Fall 2015

Project Phase #1

- Due: Friday, October 6th under Assignments in Connex.
- **IMPORTANT: THE SUBMISSION SHOULD BE A SINGLE PDF FILE (marks will be deducted if that's not the case)**
- Project phase #1 is to be completed as a group. Only one member needs to submit but make sure that you list all the members of your team in the report.
- Use ArgoUML (http://argouml.tigris.org/) in the SENG labs to prepare your diagrams. Hand-written sequence diagrams are also accepted
- All use-cases must be typed. No hand-written use-cases will be accepted.
- Guidelines for the presentation of information in the report (marks will be deducted if not followed):
- First page should be a cover page that indicates your names and student numbers, title of your project, problem statement for the project and a table of contents for the document.
- Include page numbers, i.e. 1 of 10 (see also this document)
- Include clear section headings that match the assignment description (e.g. "Part A: Domain model and glossary")
- For each section, include a short introductory paragraph explaining the section content (e.g. "In this section I describe the 10 most important requirements for the client. For each requirement I include information such as … ").

Objectives

- To practice use-case modelling.
- To practice business and domain modelling.
- To practice identifying analysis artifacts such as entity, boundary and control classes, as well as class, collaboration and sequence diagrams
- To document your draft design using UML notation.
- To go through an iteration of UP
- To implement a pilot project.

Grade Percentage: The report for project phase 1 is worth 10% of the project grade.
Note 1: Project phase 1 probably seems familiar to assignment 1 and it is. You basically have to do the same thing you did individually this time as a group and for your specific projects. You should strive to think carefully about the use cases rather than just coming up with some to "fill" the pages rather than spending time learning tools and notations with which assignment 1 has familiarized you with.

Note 2: You should try as much as possible to do requirements/use cases etc for the full envisioned system. In Project Phase 2 you will be required to implement a pilot project that will address a feasible subset of your design.

Part A (10%): DOMAIN MODEL AND GLOSSARY
Describe the problem application domain by developing a detailed description of the domain (a draft of the **domain model)**. This should be a more detailed description of the domain as outlined in the Problem description, and include any assumptions about the domain that you are making (because you are unable to speak with a client). A **glossary** must accompany the domain model.

Deliverables:
1. Glossary
2. A list of assumptions as a result of vague problem description
3. A list of questions to ask should you be able to meet with a client for clarifications.
4. Rich description of the application domain for your problem (that includes the original problem description together with your assumptions)

Part B (20%): USE CASES and the BUSINESS MODEL
Identify up to 20 **uses cases** that are implementation independent and indicate their Brief Description only. Of these, choose **four use cases** that you deem to be the most important and include them in the **business model (**e.g. draw the use-case diagram of the initial business model).

Deliverables:
Up to **20 use cases** and their Brief Description.
Use-case diagram including the **four important use cases**.

Part C (20%): REQUIREMENTS
Based on the understanding of the domain and business models, outline at most 10 requirements (e.g. detailed descriptions of the use cases in the business model)

Deliverables:
The 10 requirements.

PART D (50%): CLASSES and UML class diagram
Identify classes towards a "first draft" of some solution. Identify the **Entity classes** related to the four use cases identified in PART B. Then, develop the **boundary** and **control classes**. Include them together with the entity classes in the **class diagram** that shows all entities, boundary and control classes.

Pick **one** important out of the four use cases chosen in Part B and develop the **collaboration diagram (for each of the scenarios possible in the use case)**.

Deliverables:
Entity, Boundary and Control classes
Class diagram that includes entity, boundary and control classes
For **one** of the 4 use cases in Part B and *for each of their associated scenarios*:
- collaboration diagram *and* its associated written description

If you are at all unclear as to the level of detail required for your submitted work in this assignment, then please check with the instructor or post your questions to the Chatroom.