Instructions

This assignment is the first of four assignments that together take you through the complete development lifecycle for an interactive product. This assignment requires you to use techniques described in Chapter 10 for identifying needs and establishing requirements. You will also need to draw on techniques from Chapters 7 and 8. The further three assignments are: at the end of Chapters 11 and 12 (combined for assignment 2), and then the assignments at the end of Chapters 14 and 15 for assignments 3 and 4, respectively.

The overall project is for you to design and evaluate an interactive website/app/system sourced from some of the content from one of your modules during the first semester, CSC311, e.g. machine learning, operating systems and/or networking. To illustrate the requirements for the project, we will use the example from the HCI book for booking tickets online for events like concerts, the theatre and the cinema. You must choose another project. Decide on a system that you would like to design and discuss it with your lecturer(s) before starting (Week 8). We will discuss options and make a choice during the prac that week.

For the first assignment, you should:

1. Identify users' needs for this project. You could do this in a number of ways. For example, if you were to design a booking system, you could observe people using ticket agents, think about your own experience of purchasing tickets, look at existing websites/apps for booking tickets, talk to friends and family about their experiences, and so on. Conduct similar activities with respect to your project. Record your data carefully.
2. Based on your user requirements, choose two different user profiles and produce one persona and one main scenario for each, capturing how the user is expected to interact with the system.
3. Perform a task analysis on the main task associated with the project, e.g. for a ticket booking system, it would be booking a ticket.
4. Based on this analysis, produce a use case for the main task.
5. Using the data gathered in part (a) and your subsequent interpretation and analysis, identify different kinds of requirements for the project, according to the headings introduced in Section 10.3. Write up the requirements in the style of the Volere shell (See pages 354, 355 and 368 of ID 4th Edition).

On the database side:

Prepare the following. We will give you feedback on it this week to improve it and you will only be marked on this next week.

1. Identify all entities, attributes and relationships that will be involved in this system.
2. Make a list of the business rules that govern the relationships between the entities that you have identified. Include any constraints that you think apply. Be ready to justify your design.

On the software engineering side:

The application of the principles, processes, methods, goals, umbrella activities and tools associated with software engineering - not all of these are expected to be implemented but at least some, particularly those that are relevant for your project. UML may be used where appropriate.