Tutorial Objective:

- Review of modelling techniques. (Hint: These are good examples of questions that can be found in the exam)

Tutorial Tasks.

1. ‘System development methods have already long been controversially discussed, but there is still a lack of knowledge and understanding based on empirical studies about how systems development is actually conducted in practice, how system development methodologies and methods are used and to what degree they are used as proposed in the literature.’ (Quoted by Madsen and Kautz, 2002 from (Floyd, 1986; Nandhakumar & Avison, 1999).

What implications does this statement have on the modelling methods that we discussed in the lectures (data flow diagramming, data modelling, object orientation, event driven modelling and human activity modelling)?

2. Britton & Doake (2000, p. 68) states that:
   ‘Computer scientists have commonly used two main intellectual techniques to cope with complexity:
   - Decomposition …
   - Abstraction “

Take each of the modelling perspectives that we have discussed during the course (data, process, event driven, object orientation and human activity systems) and explain how abstraction and decomposition is used.

3. Use Blum’s taxonomy and compare the 4 different modelling techniques (data flow diagramming, data modelling, object orientation, human activity modelling) that were discussed during the course. The full article reference is: Blum, I., 1994. Taxonomy of Software development Methods. Communications of the ACM, Vol37, No11.

4. Choose one of the guest lectures. Describe the modelling and critique the modelling in terms of the following: hard or soft systems thinking and the way in which the modelling view the nature of the subject matter (in lectures we called it the nature of the organisation).