Tutorial 1

1.   Classify the following software as *custom*, *generic* or *embedded*.

a)   A system to control the reaction rate in a nuclear reactor.
b)   A program running inside nuclear power plant workers badges that monitors their radiation exposure.
c)   A program used by administrators at the nuclear plant to write letters.
d)   A system that logs all activities of the reactor and its employees so that if there is an accident, investigators can discover its cause.
e)   A program to generate annual summaries of the radiation exposure of all the workers.
f)   An education web site with an animation of how the reactor works.

2.   How do you think the different stakeholders would react to the following situations?

a)   You study a proposal for a new system that would completely automate the work of one individual in the customer's company. You discover that the cost of developing the system would be far more than continuing to do the work manually. You recommend against proceeding with the project.
b)   You implement a system according to the precise specifications of a customer. However, when the software is put to use, the users find it does not solve their problem.

3.   Which quality attributes would be the most and least important for the following systems?

a)   A web based banking system
b)   An air traffic control system.
c)   A program that will display images or movies stored in all formats.
d)   An application that lets you buy stuff while watching the appropriate TV channel.

4.   How do software projects get started?

5.   What is a use case? What is a domain model?

6.   Describe requirements, technology, skills and political risks. Which is most costly? How can the risks be mitigated?

7.   What happens during the elaboration stage?