

Course: Software Development Methods

First part: Introduction to Software Engineering

Homework #2

Questions

- 1) Describe a complex general system (natural or artificial, organized or unorganized, enterprise or product). Describe its hierarchy of systems. Propose some models to reduce its complexity.
- 2) What are the CMM levels? Find 5 software companies at level 3 CMM.
- 2) What is the difference between incremental and iterative in the software process?
- 3) Describe the most complex software product in which you were involved personally. Insist on:
 - the information system that embeds it;
 - product purpose and desired objectives to reach in the project;
 - organization of the team. State the responsibilities of each member;
 - distinguishing the separate stages in the lifecycle of the project. Enumerate the activities performed in each one;
 - to which process model taught at the course was your project most similar. What were the differences between that model and your own?
 - how could your project process have been improved?
- 4) Which of the software engineering paradigms and related methodologies presented in this chapter do you think would be most effective? Why?
- 5) Provide three examples of software development projects that would be amenable to prototyping or spiral approach.
- 6) Propose a specific software project that would be amenable to the incremental model. Present a scenario for applying the model to the software.

Exercise

Object-Orientation Foundation

Implement the classes and relationships corresponding to the following class diagram
In Java. Only class definition, attributes and relationships are required.

