Software Engineering (COMP433)

Software Processes
(Software Process Model)

Location: ;
Time:
  s1: Monday & Wednesday: *11:25-12:40 [Masri204/ALSADIK406]*
  s3: Tuesday & Thursday: *12:50-14:05 [PNH403]*

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What is a Process … ?

When we provide a service or create a product we always follow a sequence of steps to accomplish a set of tasks
   You do not usually
      Paint the wall before the wiring for a house is installed !

We can think of a series of activities as a **process**

Any process has the following characteristics
   It prescribes all of the major activities
   It uses resources and produces intermediate and final products
   It may include sub-processes and has entry and exit criteria
   The activities are organized in a sequence
   Constrains or control may apply to activities
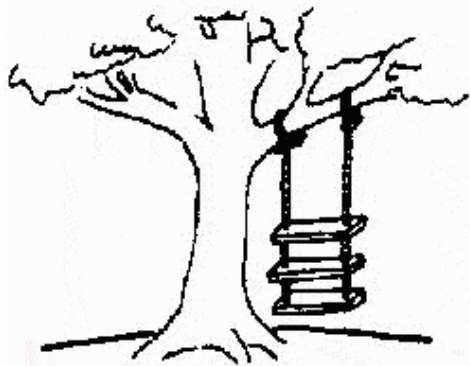   (budget control, availability of resources)

Software Processes

When the process involves the building of some product we refer to the process as a
life cycle
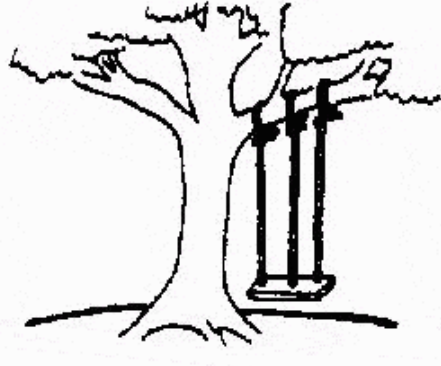
Software development process – software life cycle

Coherent sets of activities for
Specifying,
Developing (Designing,
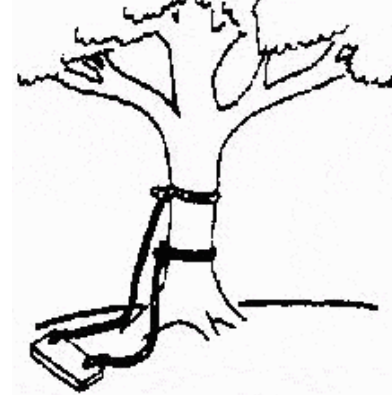Implementing) and
Validating (Testing) software
systems

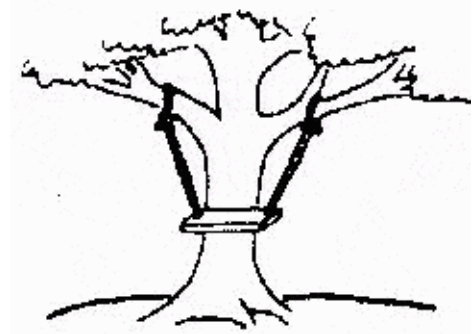# Major problems in software developments …

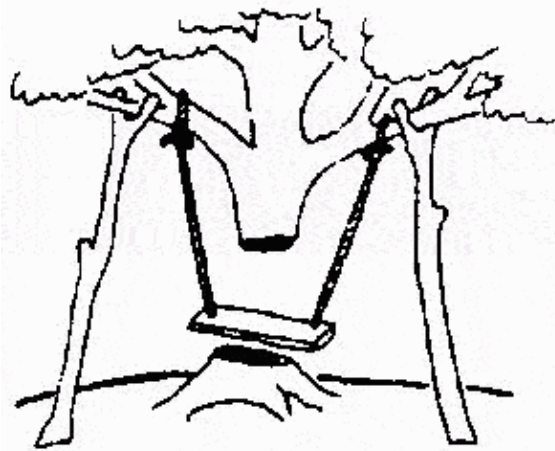The requirements specification was defined like this

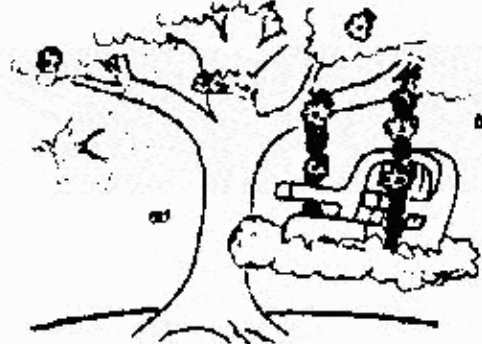This is how the developer understood

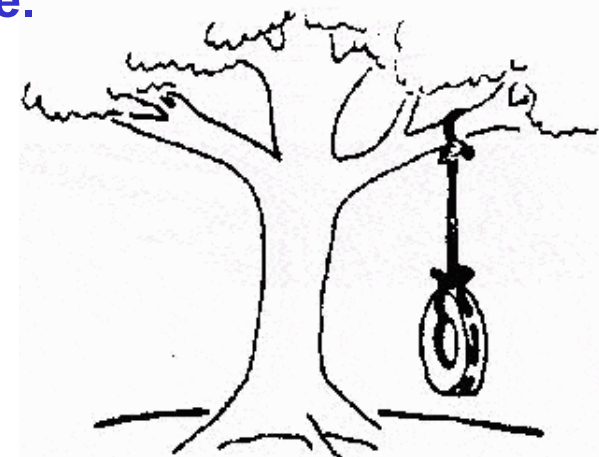This is how the problem was solved before.

This is how the problem is solved now

This is the program after debugging

This is how the program is described by marketing department

This, in fact, is what the customer wanted …

The Software Process

- **A structured set of activities required to develop a software system**
  - Specification
  - Development/Design
  - Validation
  - Evolution

- **A software process model is an abstract representation of a process**
  - It presents a description of a process from some particular perspective