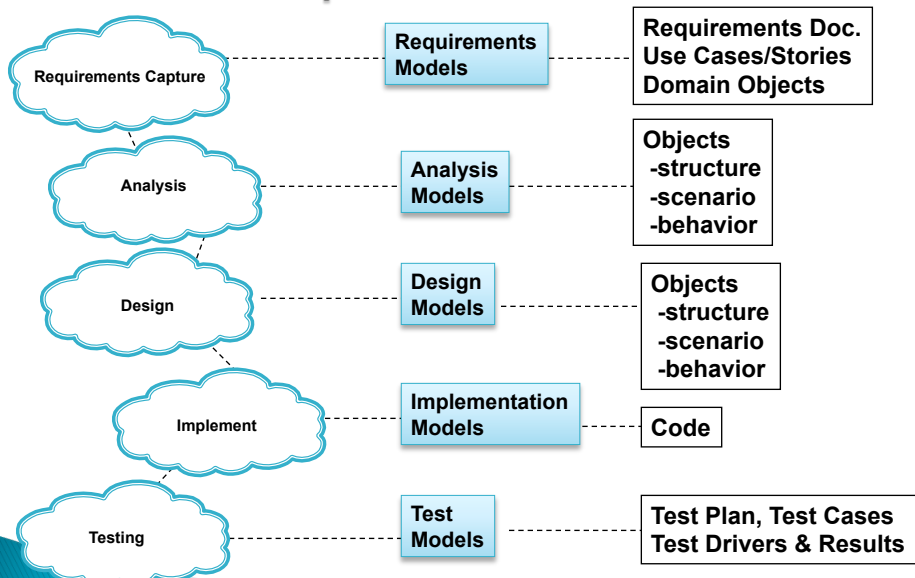


Activities, Process, and Models

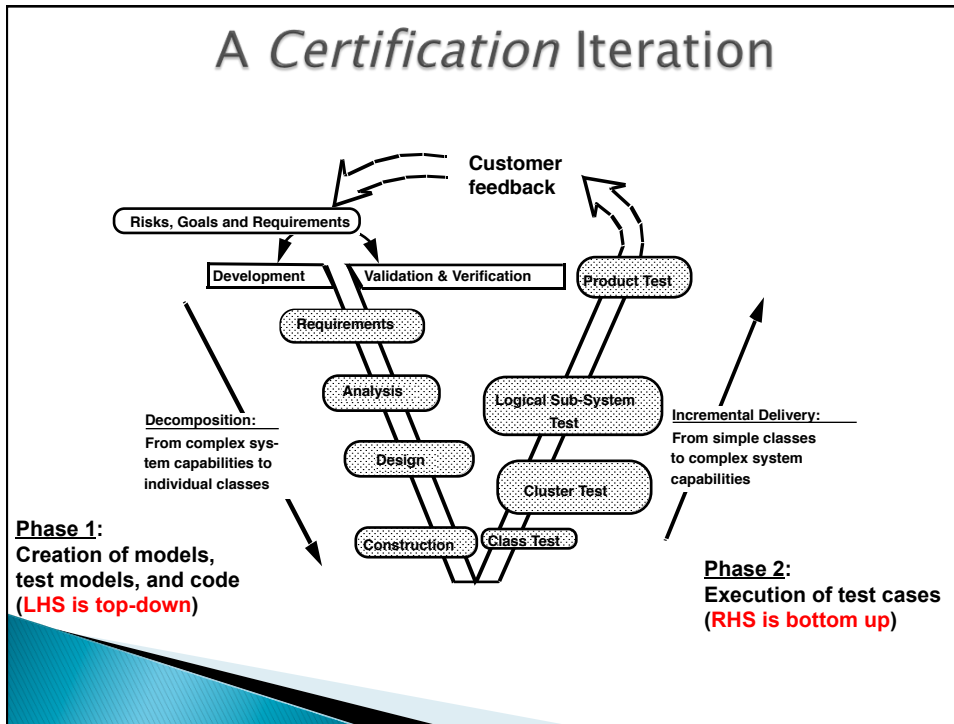
1

OO Development Overview



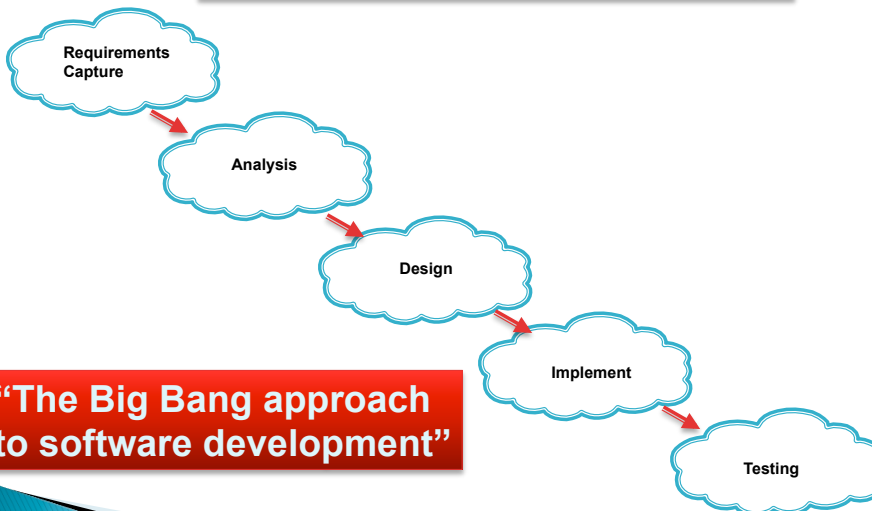
2

A Certification Iteration



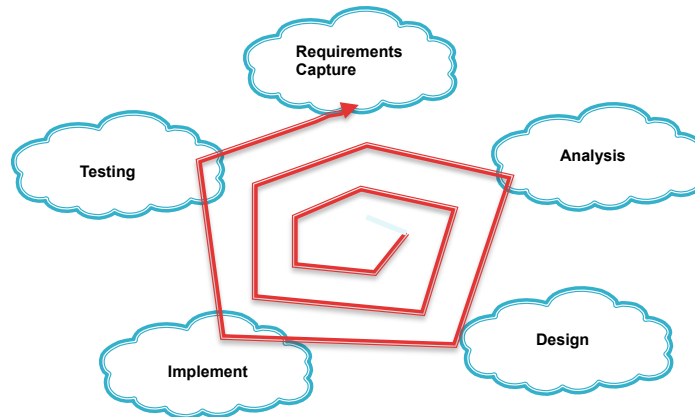
Waterfall Development

Activities carried out one after the other as steps



Incremental-Iterative Development

The Spiral Model



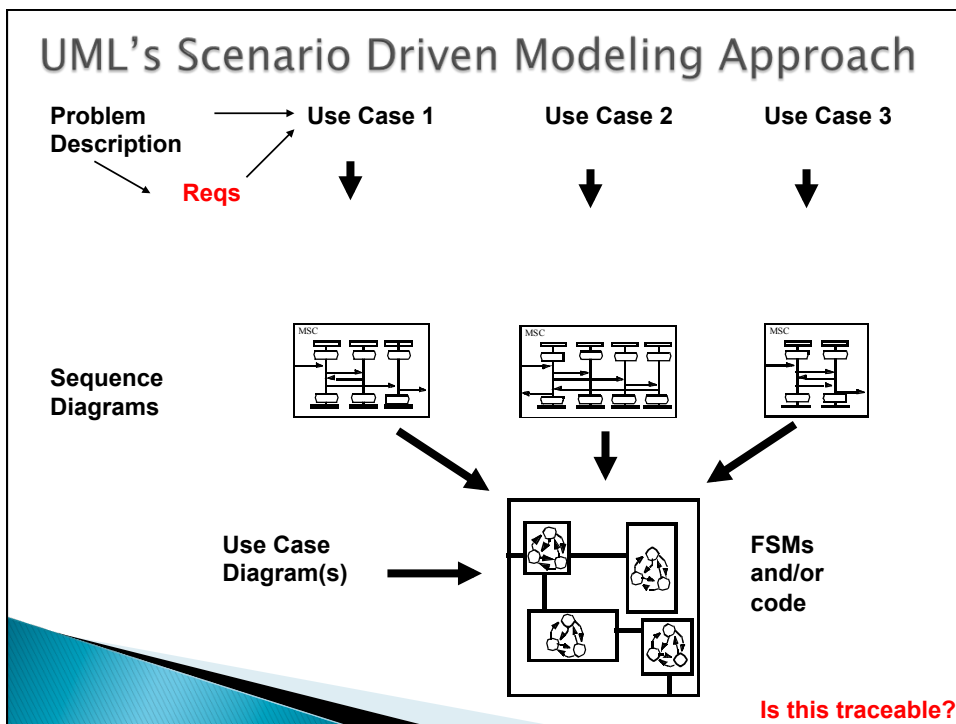
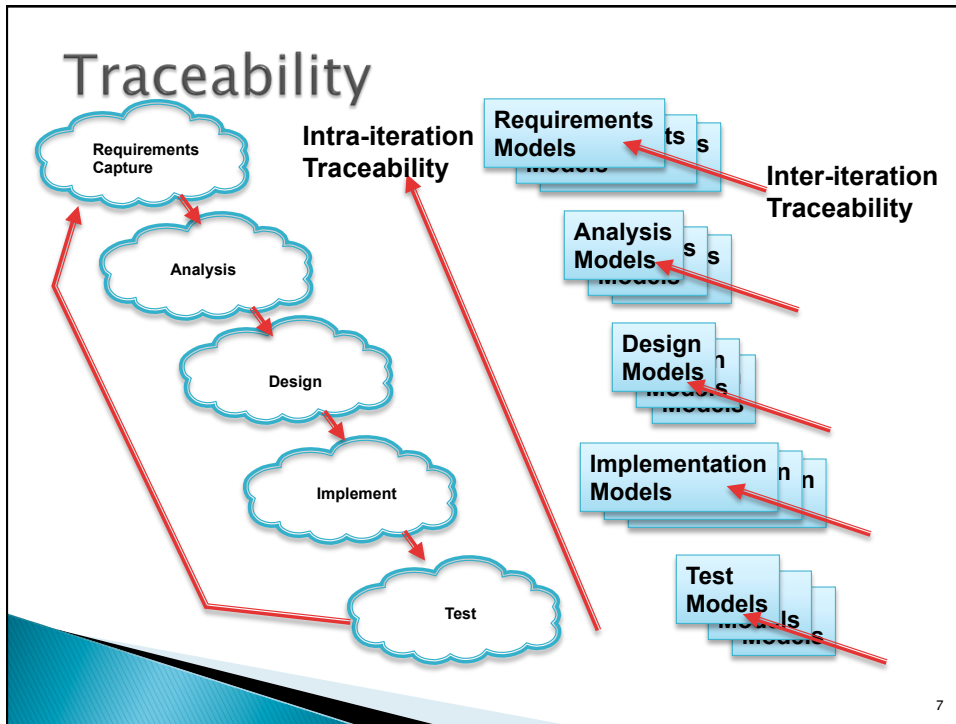
Can have macro and micro iterations
but needs to **converge**

5

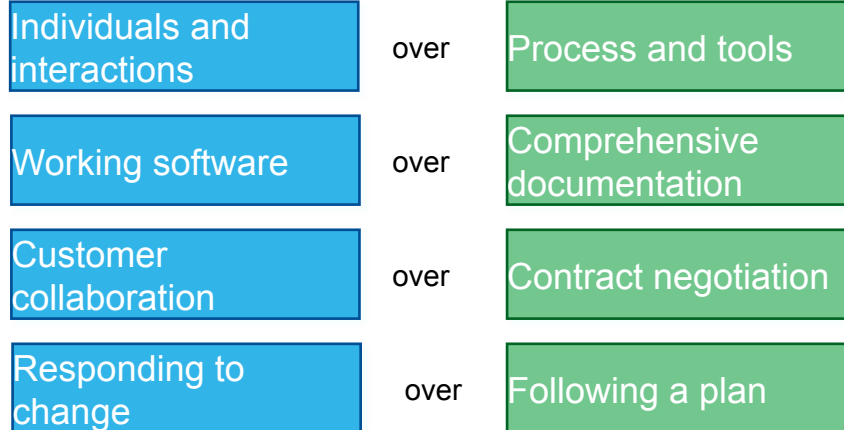
Aiming for Traceability

- ▶ Traceability is required to achieve convergence:
 - We must document the *continuity* that must exist between the work-products of different activities.
 - At least required for **regression testing**
 - In turn, continuity enables completeness and consistency checks.
- ▶ Within a particular activity, the work-products must be **consistent**.
 - e.g., the structural, scenario and behavior models must be consistent
 - For example, if an interaction diagram shows an object receiving a message, then the statechart of this object must reflect this possibility
- ▶ Work-products must also be **complete** with respect to the current requirements.

6



The Agile Manifesto—a statement of values



Source: www.agilemanifesto.org

The Core of Agile Modeling

Some Core Principles

- Assume Simplicity
- Expect Incremental Change
- Enabling the Next Effort is Your Secondary Goal
- Model With a Purpose
- Use Multiple Models
- Maximize Stakeholder Investment
- **Value Quality first**
- Get Rapid Feedback
- **Software Is Your Primary Goal**

Some Core Practices

- Active Stakeholder Participation
- Apply the Right Artifact(s)
- **Collective Ownership**
- Create Several Models in Parallel
- Create Simple Content
- Depict Models Simply
- Display Models Publicly
- **Model in Small Increments**
- Model With Others
- **Prove it With Code**
- Use the Simplest Tools

Scrum

