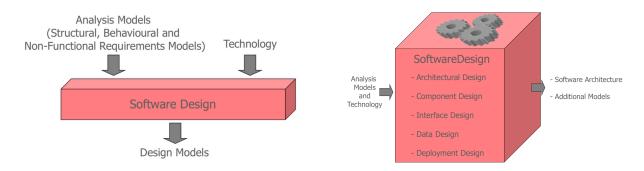


## AS - Teoria 3

# Unit 3.1. Introduction to Software Design using Traditional Methodologies

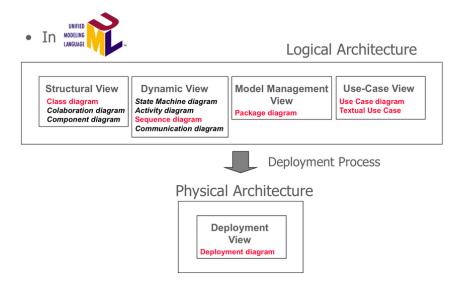
### Software Design and Architecture using Traditional Methodologies

- Software design and Architecture in waterfall and in some of iterative methodologies starts when the discover phase is finished or almost finished.
- Software design and Architecture is very well documented and completed before coding starts.
- Software design is focused on completing modules of the architecture.
- Software design is a heavy process.
- Software design requires architects and designers.
- Architects have infrequent interactions with business people.
- Inputs and outputs of software design



#### Software Architecture Views

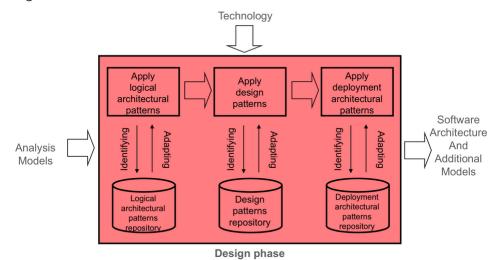
The use of different views to represent the architecture of software systems in traditional methodologies allows us to address separately the concerns of various stakeholders of the architecture (end-users, developers, project managers, etc...)



#### Pattern-based Design

**Pattern-based design** creates a new application by finding a set of proven solutions to a clearly delineated set of problems. Each problem and its solution is described by a design pattern that has been catalogued and vetted by other software engineers.

- Two types of patterns used at the design phase:
  - Architectural patterns
  - Design patterns
- In general



- In AS we will apply the pattern based design to software systems that:
  - Keep a consistent representation of the domain state.
  - Answer queries about the domain state.
  - Produce reactions when some predefined conditions are given.
  - Use external services
- In AS

