

Software Modelling

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with slides from Anya Tafliovich

Why building models?

- To better understand the problem
- To uncover potential problems
- To make decisions about the product design
- Have a common agreement and understanding about the product to build

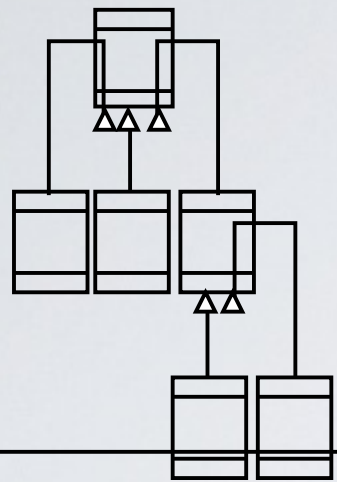
UML - Unified Modelling Language

General purpose modelling language that defines a set of diagram notations

➡ Created with OO-programming in mind

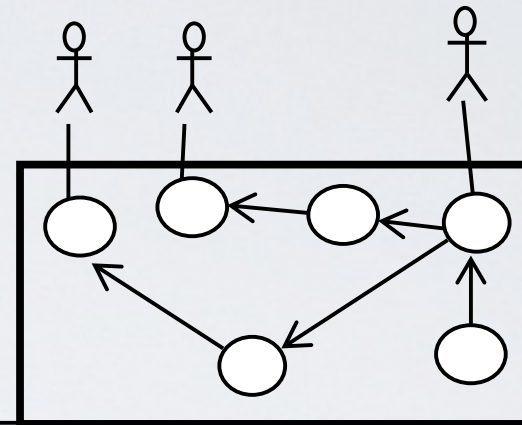
UML diagrams

UML Class Diagrams



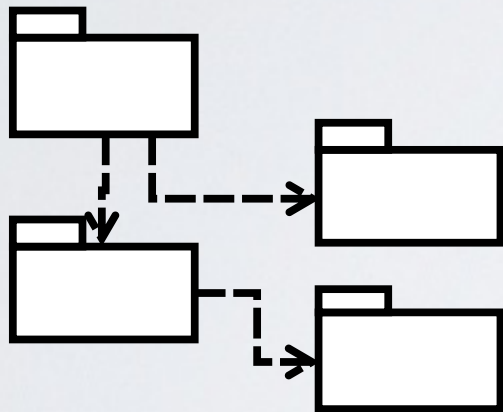
information structure
relationships between
data items
modular structure for
the system

Use Cases



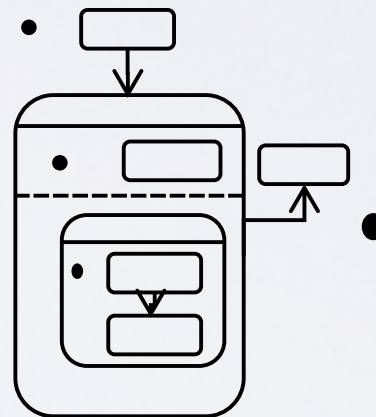
user's view
lists functions
visual overview of the
main requirements

UML Package Diagrams



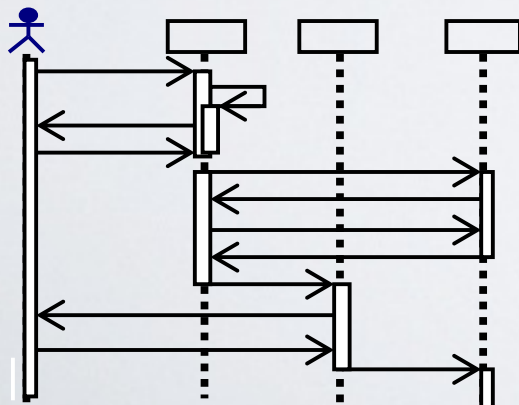
overall architecture
dependencies between
components

(UML) Statecharts



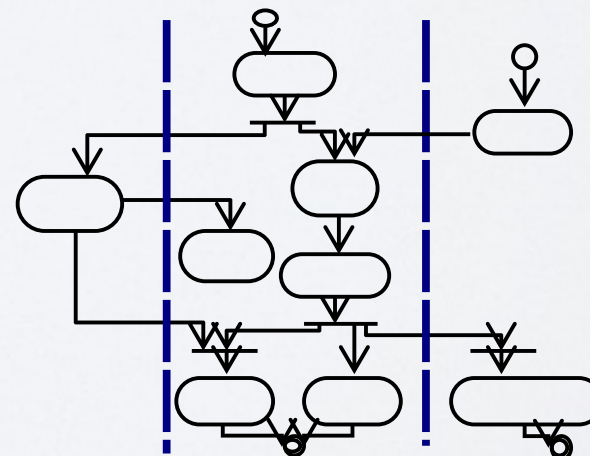
responses to events
dynamic behavior
event ordering,
reachability, deadlock

UML Sequence Diagrams



individual scenario
interactions between
users and system
sequence of messages

Activity diagrams



business processes
concurrency
synchronization
dependencies between
tasks