Introduction to UML

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What is UML?

- Unified Modeling Language
- standard graphical notation for modeling software systems from different viewpoints
  - architecture
  - data structures
  - processes
  - functions
  - states
  - communication
  - etc.
- and different levels of abstraction
  - conceptual
  - implementation
What UML is not?

- replacement for textual programming languages
  - at least nowadays
- methodology
  - it does not say how to use it
- universal language
  - it is not a single language for any problem
Why UML?

- (standardized) graphical notation is a natural way of communication and understanding between different stakeholders and inside a development team
  - ISO standard
- allows to highlight important properties and features while avoiding unnecessary details
- analysts, designers, architects, developers started to use it widely
- well supported by different CASE tools
Classification of UML Diagram Types

- Class Diagram
- Composite Structure Diagram
- Component Diagram
- Deployment Diagram
- Object Diagram
- Profile Diagram
- Structure Diagram
- Package Diagram
- Interaction Diagram
- Timing Diagram
- Interaction Overview Diagram
- Communication Diagram
- Use Case Diagram
- Activity Diagram
- Behavior Diagram
- State Machine Diagram
- Sequence Diagram
- Communication Diagram
- Activity Diagram
- Use Case Diagram
- Behavior Diagram
- State Machine Diagram
- Sequence Diagram
- Communication Diagram