Referensi

- Brahma Dathan, Sarnath Ramnath – Object-Oriented Analysis and Design (2011)

Analysis
The UML software Development Process

- **Inception**
  establishes the business rationale for the project and decides on the **scope** of the project

- **Elaboration**
  collect **more detailed** requirements and create the plan for construction

- **Construction**
  **build** production-quality software prototype, tested and integrated as subset of the requirements of the project

- **Transition**
  **beta testing**, user training

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Analysis

- **What We Do ???
  - Analyze requirements gathered in requirement modeling
  - Achieve a more precise understanding of the system
  - Elaborate use cases
  - Structure the requirements using the analysis model
Analyze a Class

- Focus: handling functional requirements
- Conceptual in nature
- Seldom defines any interface in terms of methods
- Types: Boundary, control, entity
Boundary Class

- Used to model interaction between system and actor
- Often represent windows, forms, sensors, terminals
- Is related to at least one actor and vice versa
Control Class

- Represents coordination, sequencing, transactions and control of other objects
- Often encapsulate use case related control
- One use case has one control class
Entity Class

- Used to model information
- Usually long lived an/or persistent
- Usually derived directly from business entities
- Can be shared by multiple boundary and control classes
Example: Analysis Classes

- Item
- Issue Item
- Purchase Request
- Purchase Order

Diagram:

- Foreman connected to Issue Item
- Issue Item connected to Issue Item Control
- Issue Item Control connected to Item
- Item connected to Purchase Request
Sequence Diagram

- Emphasizes time ordering of messages
- Distinction from collaboration diagram
  - Object lifeline
  - Focus of control
Analyze A Package

- **Class Diagram**
  - Shows a set of classes, interfaces and collaboration and their relationships
  - Most common diagram
  - Addresses static design view of a system
  - Contains: classes, interfaces, relationships, groups
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