

Object-Oriented Analysis with Argo/UML

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Overview

- What is Analysis?
- Object-oriented Analysis with UML Class Diagrams
 - Classes
 - Associations
- Example: Analysis model of TELE
- Using Argo/UML for Analysis
- Your Homework Assignment

What is Requirements Analysis?

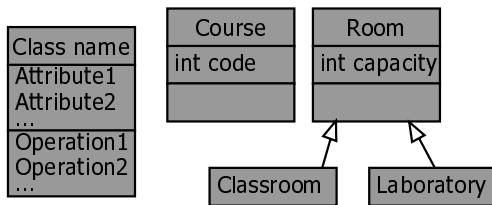
- Analysis: Investigate the problem statement and learn the problem domain to discover and understand system requirements.
- Discover:
 - terminology
 - objects of interest and their attributes and operations
 - key relationships
 - important processes
- Results:
 - info needed for requirements and design,
 - background for talking with users and customers,
 - or, decision to terminate the project

Object-oriented Analysis

- Focus on discovering objects of interest and relationships
- Sources:
 - things mentioned in problem statement,
 - your knowledge of the problem domain,
 - look at previous (computer or non-computer) systems,
 - go read about the problem domain,
 - talk to potential users
- SOME of these objects will be part of implementation, LATER

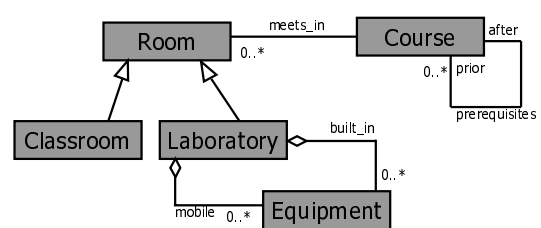
Classes

- A UML Class represents a kind of object in the problem domain
 - Name, Attributes, Operations
 - Generalization



Associations

- A UML Association represents a relationship between kinds of objects in the problem domain
 - Name, Role names, Multiplicity, Aggregation



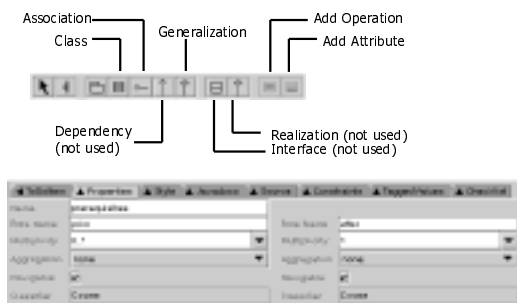
Example: Analysis model for TELE



Using Argo/UML for Analysis

- Start Argo/UML:
 - module load java
 - /home/jrobbins/argo
- Use “class diagram 1”
- Use toolbar buttons to create classes, associations, generalizations, attributes, operations.
- Set names, multiplicity, and aggregation with the “Properties” tab.

Using Argo/UML for Analysis



Your Homework Assignment

- Build an OO Analysis model of an E-mail system
 - One diagram with 6-8 classes with some attributes and operations, and 4-8 associations
 - Everything labeled with meaningful names
 - Hint: Before you begin, learn a little about e-mail terminology and existing e-mail systems and standards
- Hand-in a printout of the diagram
- On a separate sheet, write a one sentence description of each class, attribute, operation, and relationship.
- Due at start of class Tuesday, May 18.