UML Diagram Key

Basics

Visibility Symbols

+	o	Public
#	♦	Protected
-	■	Private

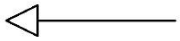
Additional Symbols

S	Static
F	Final
SF	Static Final
C	Constructor

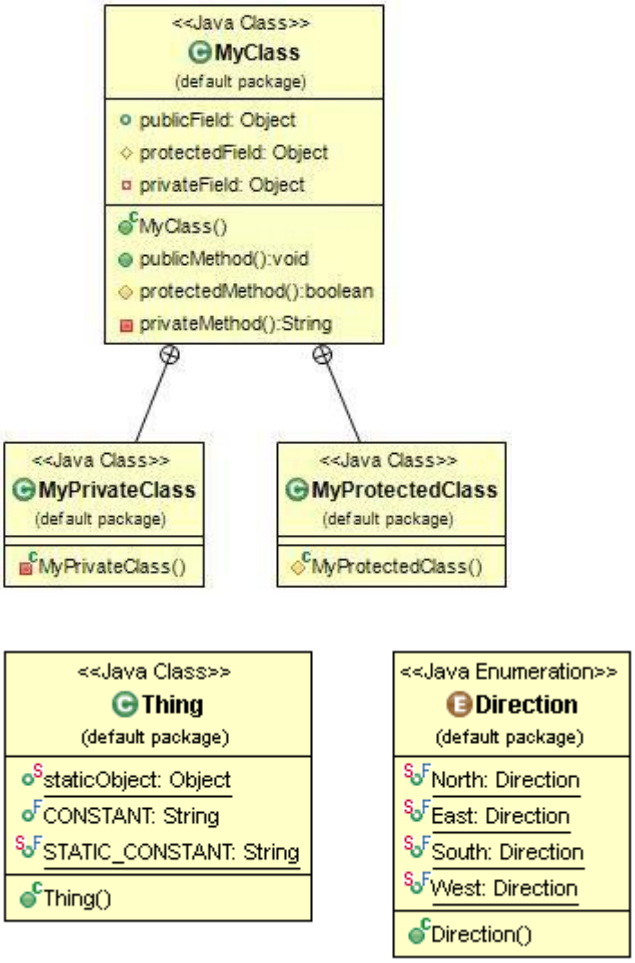
Association

- Stronger relationship than dependency
- An object contains another one, a one-way relationship
- Represented by a solid arrow that points in the direction of the instance being contained by another classifier

Generalization

- An association representing class extension and inheritance
- Used to show that a class has a super class
- Represented by a hollow solid arrow 

Example Diagrams



Want to know more?

What is UML?

- Means “Unified Modeling Language”
- Used for object-oriented programming (OOP)
- Among others, specifies:
  - Methods (activities)
  - Objects
  - Interactions
  - User Interface
  - Relationships
  - Dependencies
  - How the program runs

Class Diagram

- Show relationships between classes
- Allows for coherent software development
- Can look different between UML software

Classifier

- A general term used for an object
- Includes (but not limited to)
    - Class
    - Interface
    - Enumeration

Class

- Represented by a box
- An object that has information about its behavior and structure
- Can contain information about its:
    - Package
    - Name
    - Fields
    - Methods
    - Classes
    - Interfaces
    - Parent Class

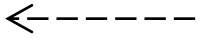
Attribute

- A value associated with a classifier to describe it

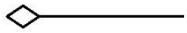
Operation

- Method, function, action, or service an object can perform

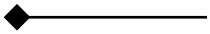
Dependency

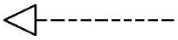
- Least formal relationship, so avoid using it
- An object depends on another one (by parameter or return type)
- A classifier at beginning of arrow depends on the classifier at the arrowhead in some way
- Represented by a dotted arrow that points in the direction of the dependency 

Aggregation

- A parent-child relationship
- The child can exist independently of parent
- Represented by a hollow diamond 

Composition

- A parent-child relationship
- The child cannot exist independently of parent
- Stronger relationship than aggregation
- Represented by a filled diamond 

Realization

- An association representing interface implementation
- Represented by a hollow dotted arrow