

UML Glossary and Notation

Association is a simple link between two objects (e.g. cat **eats** mouse) and is depicted by a straight line

Aggregation is a special type of association where any child object could be part of a parent object but it could also still exist on its own – is represented by an open diamond

Composition represents a child-object that cannot exist without its parent-object and is shown with a closed diamond

Inheritance is shown by an arrow and sub/ child classes inherit all the attributes and methods of the super/ parent class.

Multiplicity shows numerical constraints on relationships and allows you to specify exactly how many objects may participate in the given relationship or the allowable number of instances. E.g.

0..1 (another way of saying 'optional')

N (specific number)

0..*(zero to infinity)

1..*(one to infinity)

m...n(specific number change)

Visibility refers to whether a method or an attribute can be accessed by another class:

-Private: methods cannot be accessed by any other class

+Public: methods can be accessed by any other class

#protected: can only be accessed by the same class or subclasses

~package/default: can be used by any other class as long as its in the same package (rarely used)

UML Formatting guidelines:

- Don't cross lines and avoid curved or diagonal lines
- Used consistently sized symbols
- Minimize number of bubbles
- Provide a legend
- Organize left-right/ top-bottom
- Reorganise large diagrams onto several smaller ones
- A diamond is a decision point
- Thick black horizontal lines are things starting in parallel

Naming guidelines:

- Follow effective naming conventions and use clear terminology (e.g. order, customer)
- Name elements consistently across diagrams