

Adapted for a textbook by Blaha M. and Rumbaugh J.

Object Oriented Modeling and Design

Pearson Prentice Hall, 2005

UML Notation

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Class Model Notation

Object:

objectName:ClassName

<u>objectName:ClassName</u>
attributeName = value ...

Link:

object1:Class1 — *AssociationName* — object2:Class2

Association:

Class1 — *AssociationName* — Class2
assocEndNm1 assocEndNm2

Class:

ClassName

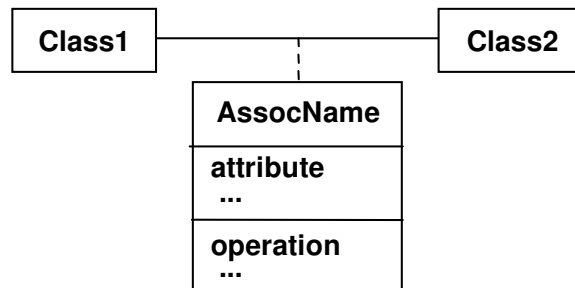
ClassName
attribute attribute : DataType[attMult] attribute : DataType[attMult] = defaultValue
operation operation (arg1:Name1, ...) : ResultType ...

Multiplicity of Associations:

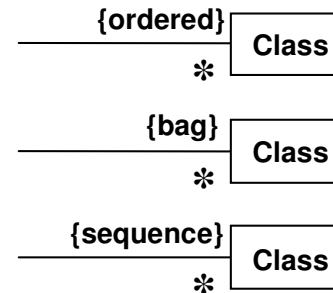
1	Class	Exactly one
*	Class	Many (zero or more)
0..1	Class	Optional (zero or one)
1..*	Class	One or more

Class Model Notation

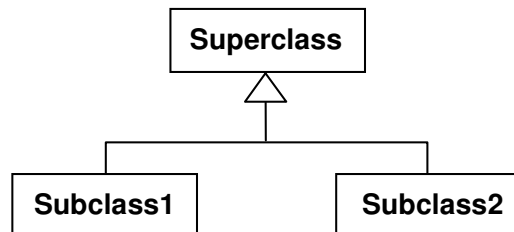
Association Class:



Ordered, Bag, Sequence:



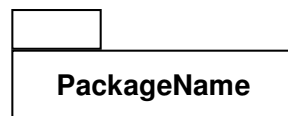
Generalization (Inheritance):



Qualified Association:



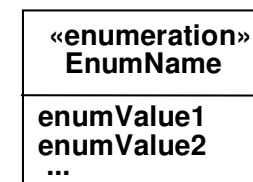
Package:



Comment:

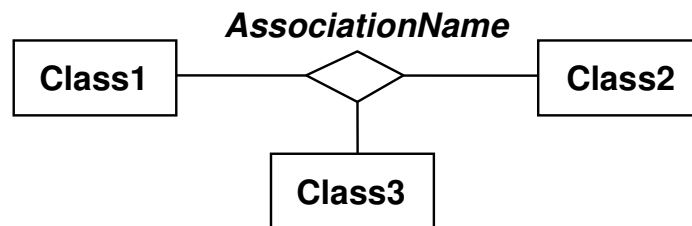


Enumeration:

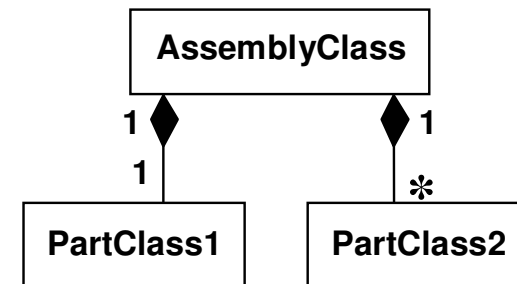


Class Model Notation

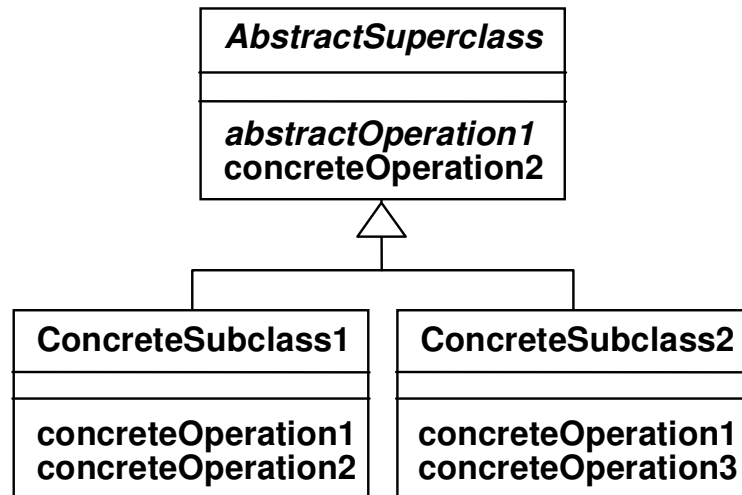
Ternary Association:



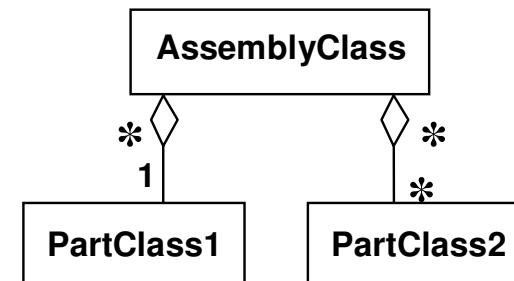
Composition:



Abstract and Concrete Class:

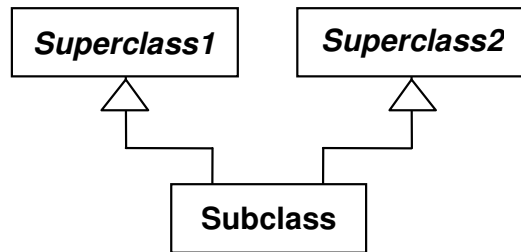


Aggregation:

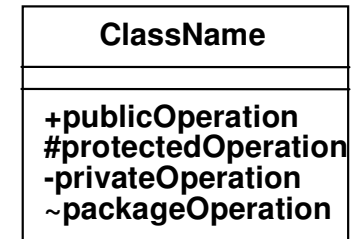


Class Model Notation

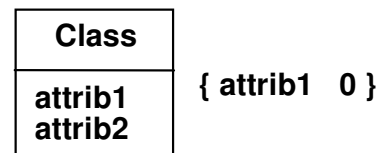
Multiple Inheritance, Disjoint:



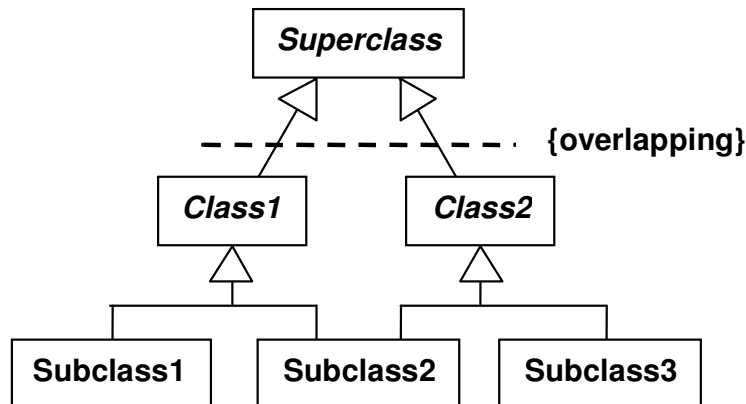
Visibility:



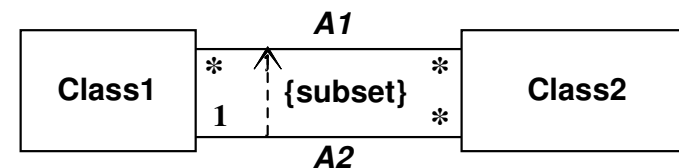
Constraint on Objects:



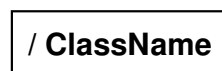
Multiple Inheritance, Overlapping:



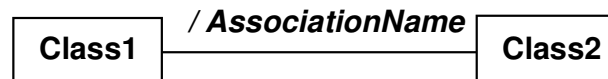
Constraint on Links:



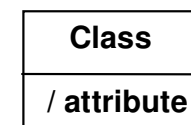
Derived Class:



Derived Association:

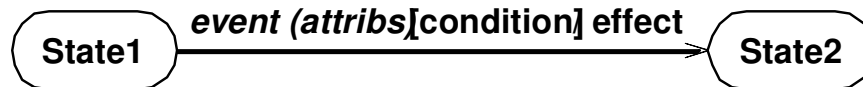


Derived Attribute:



State Model Notation

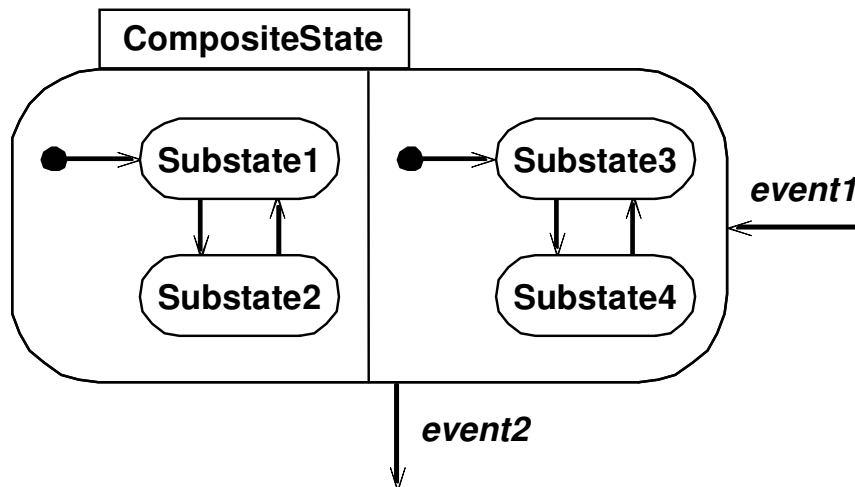
Event causes Transition between States:



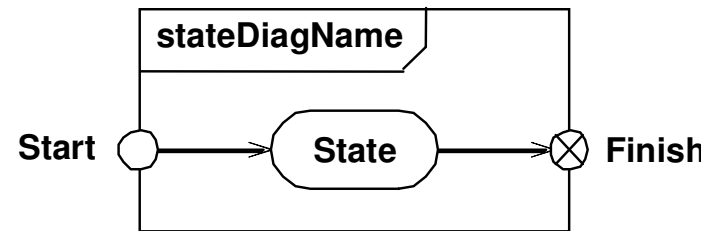
Initial and Final States:



Concurrency within an Object:

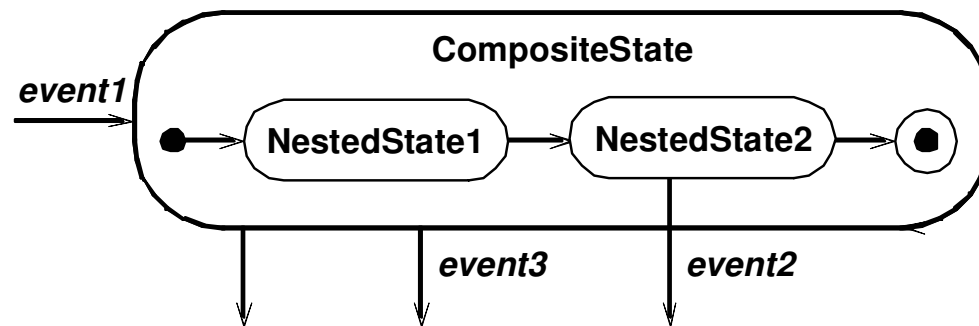


Entry and Exit Points:

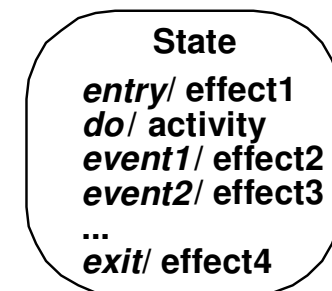


State Model Notation

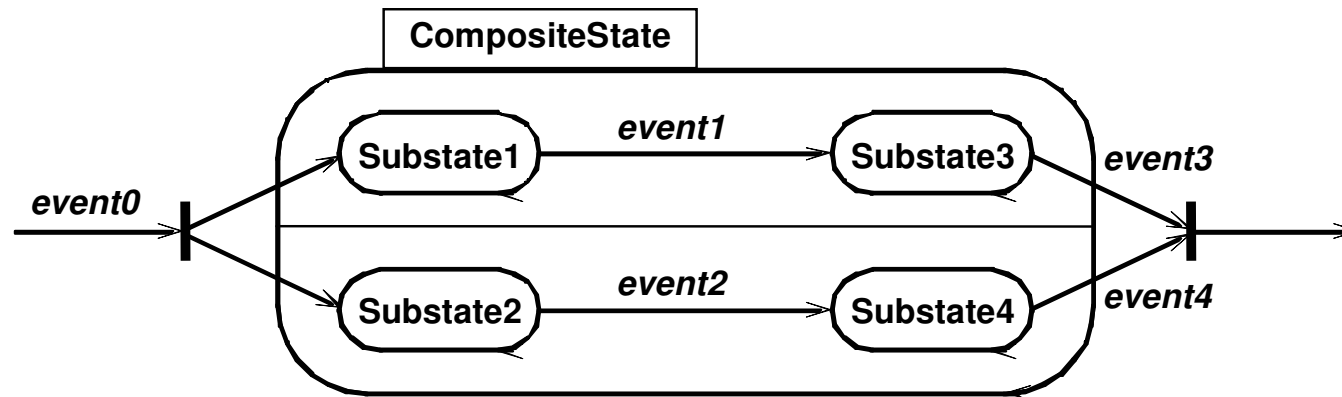
Nested State:



Activities while in a State:



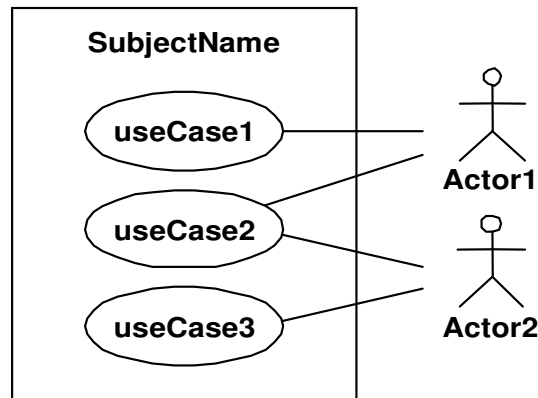
Splitting of control:



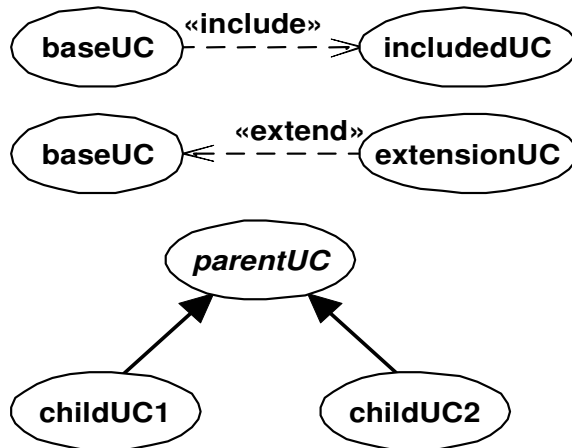
Synchronization of control:

Interaction Model Notation

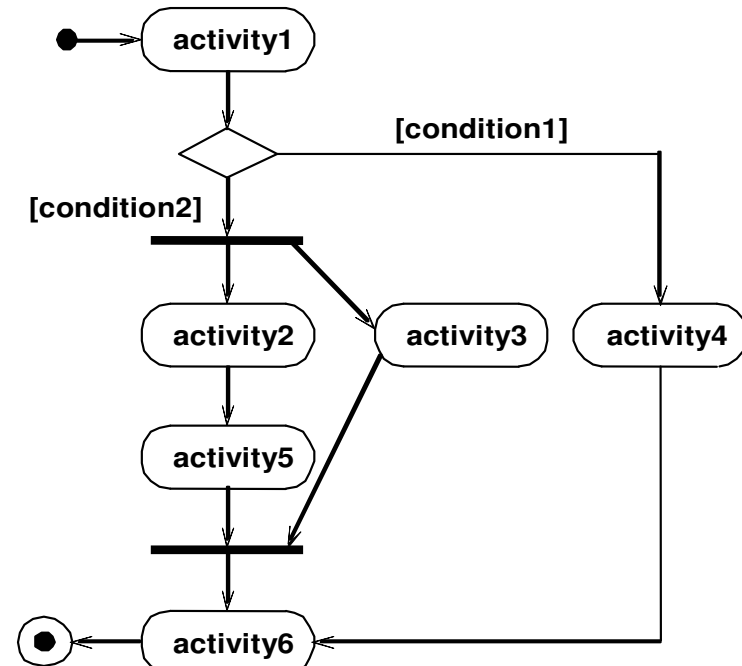
Use Case Diagram:



Use Case Relationships:

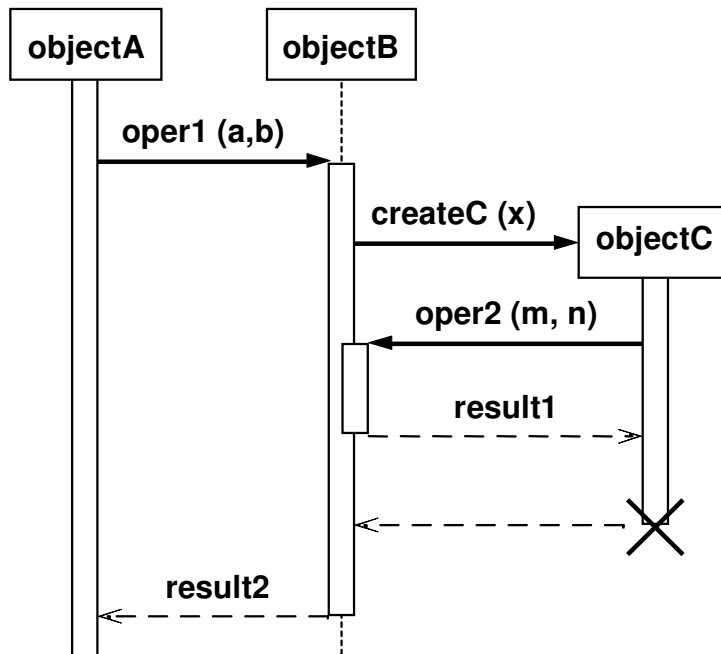


Activity Diagram:

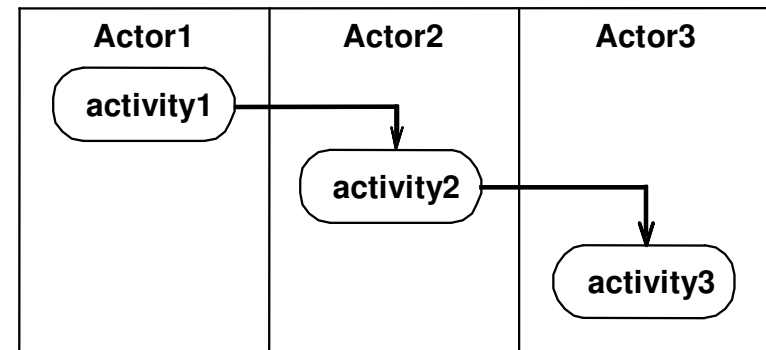


Interaction Model Notation

Sequence Diagram:



Activity Diagram with Swimlanes:



Activity Diagram with Object Flows:

