

Relationship Subsystem CD scrapbook

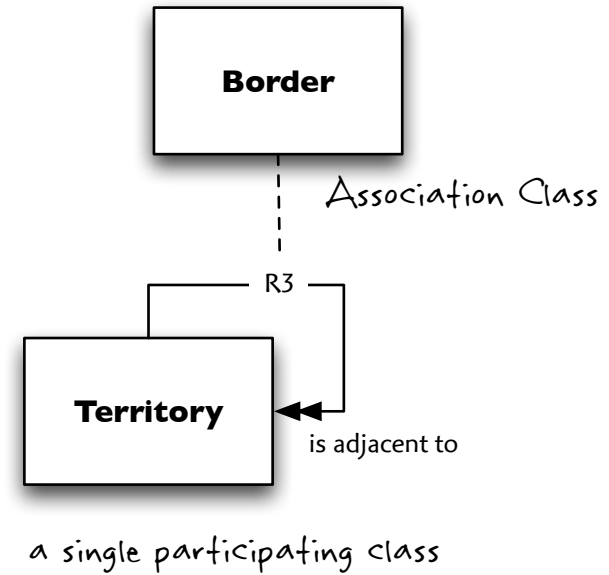
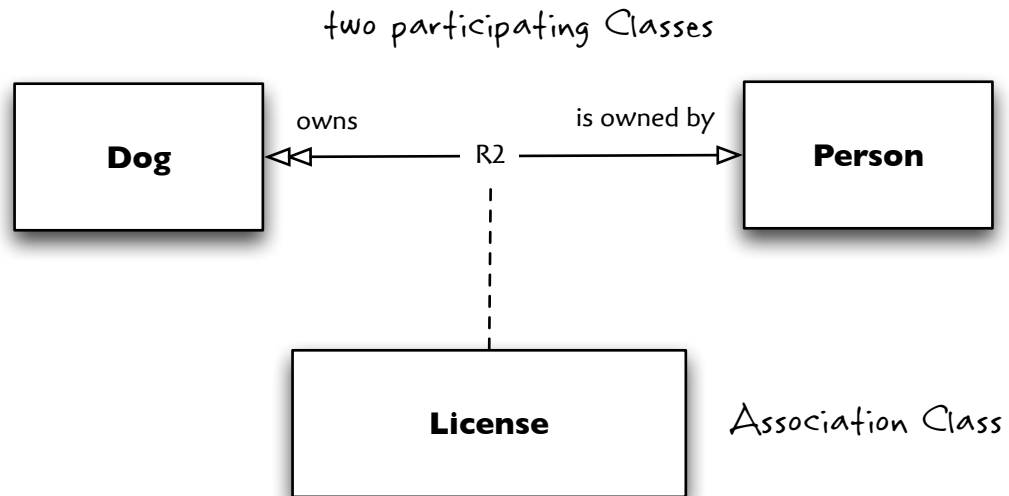
Leon Starr
Sat May 28 2011

This is a repository for graphics pasted into mint.miUMLmeta.td.3

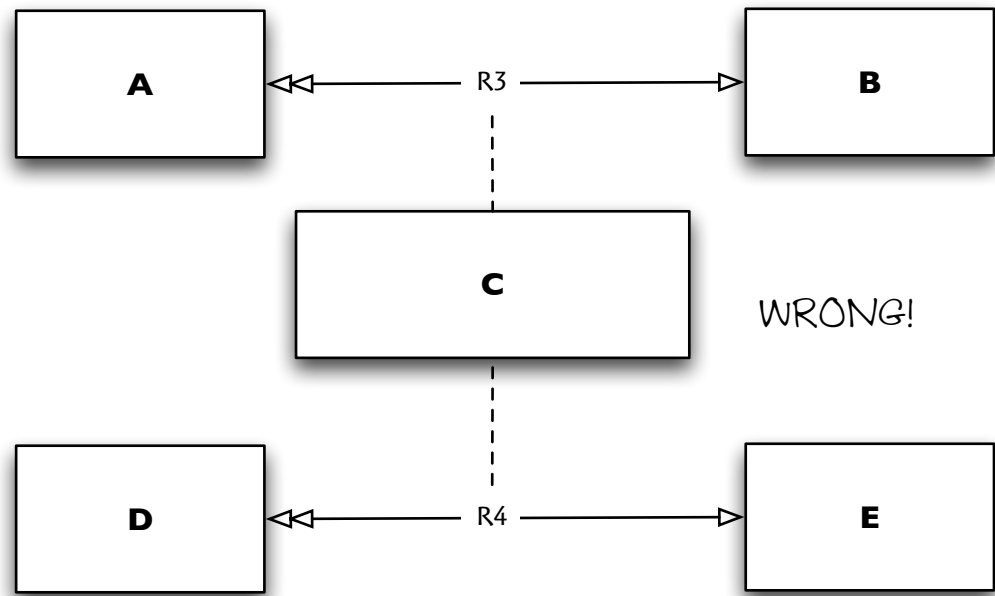


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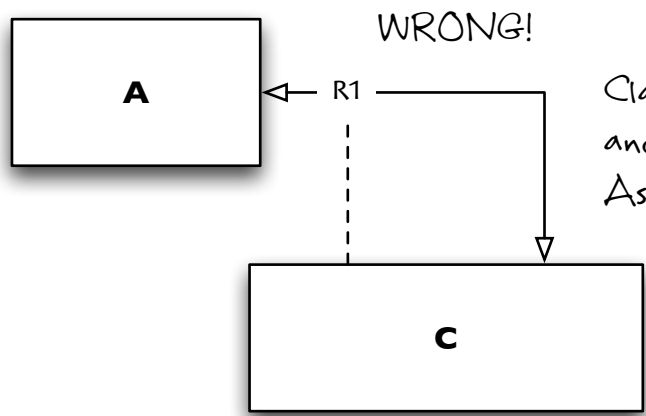
A Class may play the Association Class role more than once



WRONG!

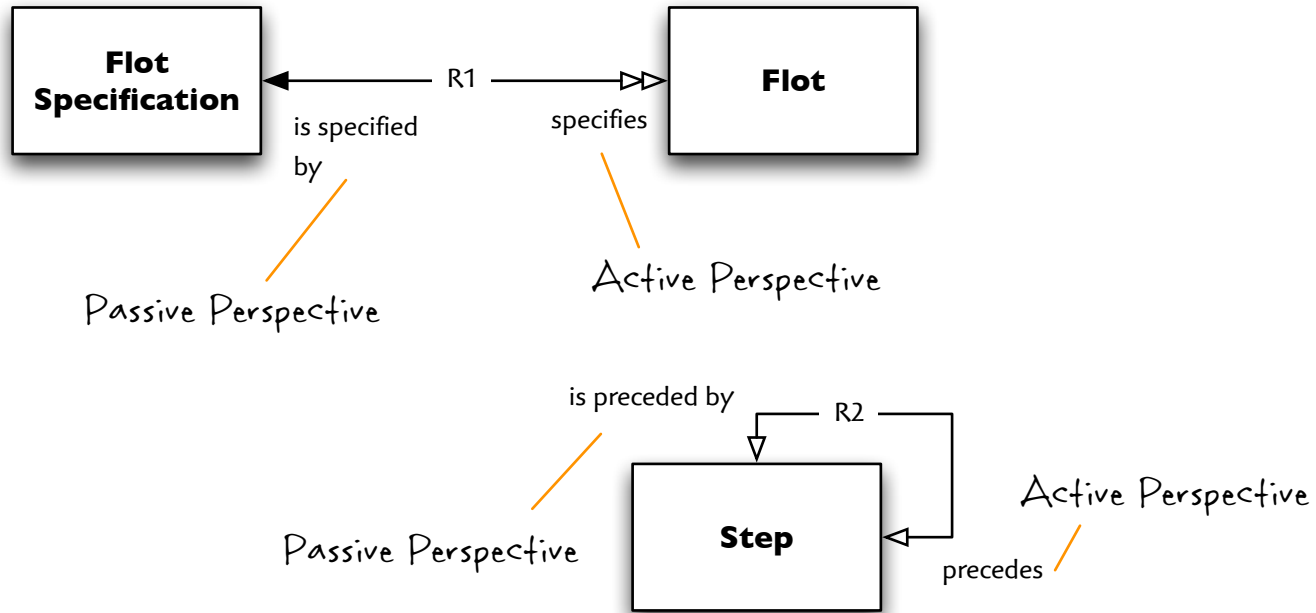
Class C cannot play the role of Association Class in more than one Association.

Mutual exclusion of participating and Association Class roles.



WRONG!

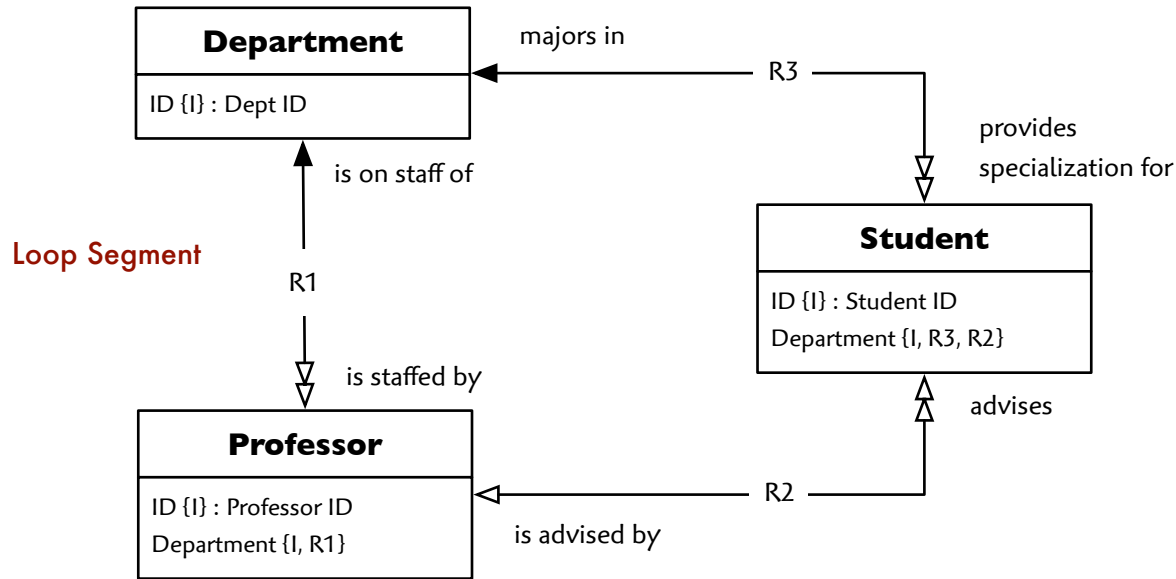
Class C cannot be the Association Class and a participating Class in the same Association.



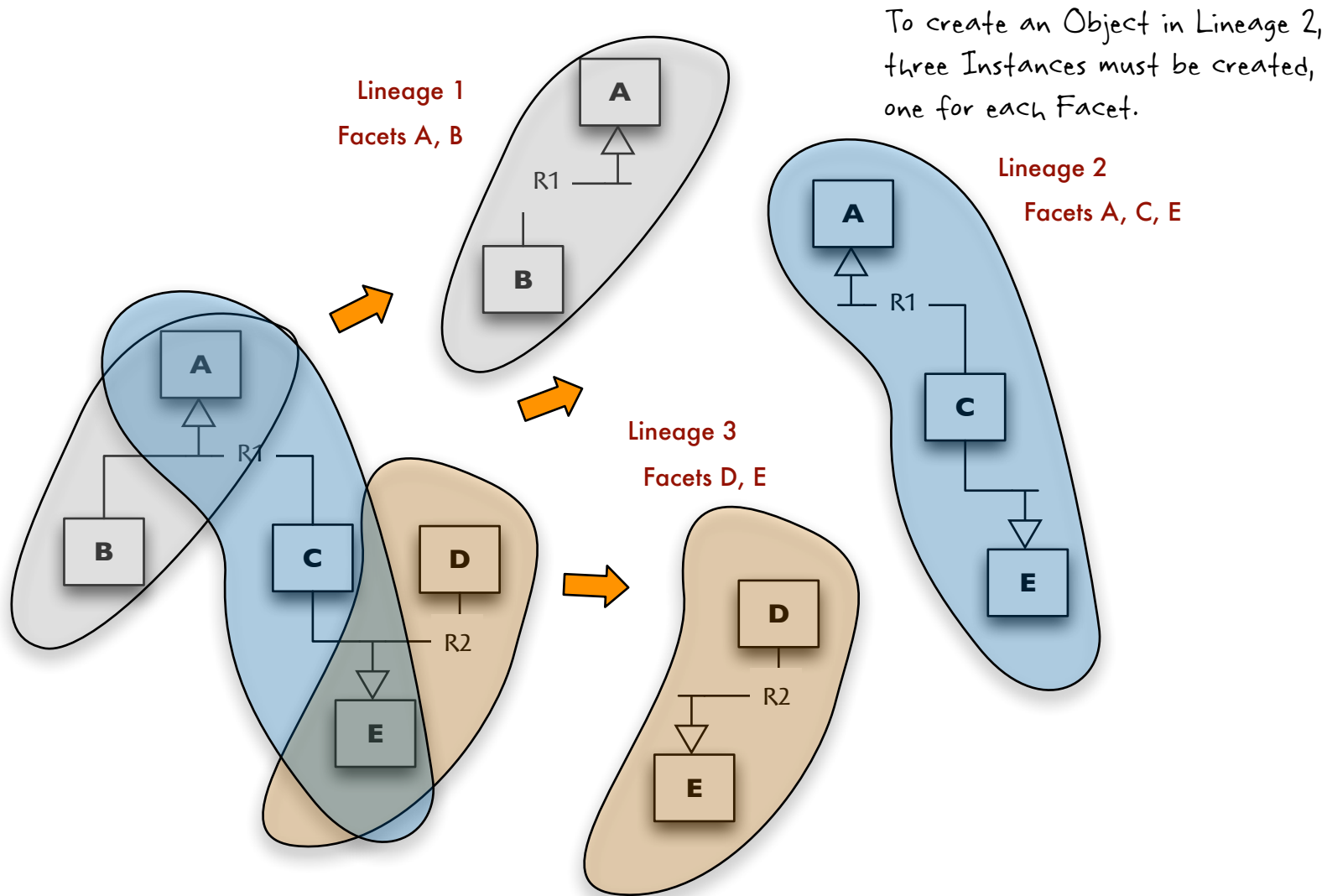
Constrained Loop

CL1: (R1, R2, R3)

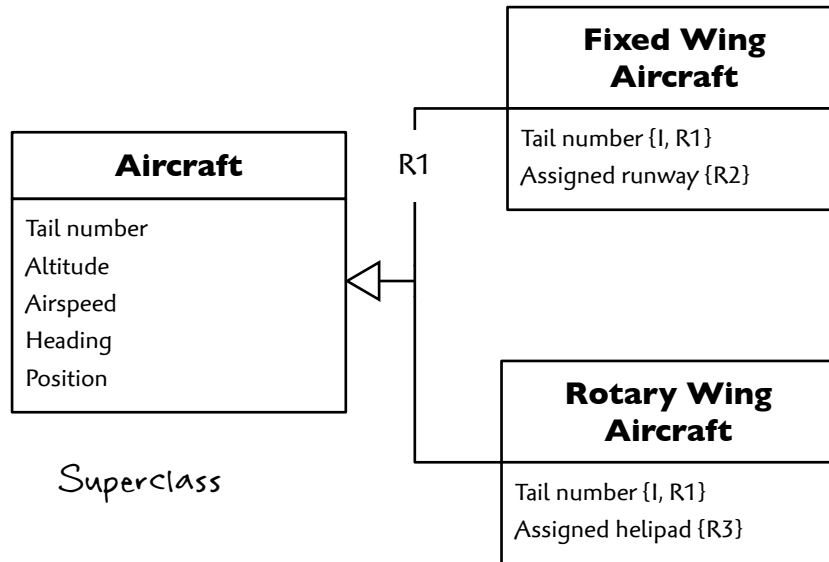
A Constrained Loop is a set (not ordered) of contiguous Relationships.



By incorporating Department.ID into both Student and Professor identifiers and merging the Department referential attribute in Student, a Student must be advised by a Professor on the staff of the same Department as the Student's major.

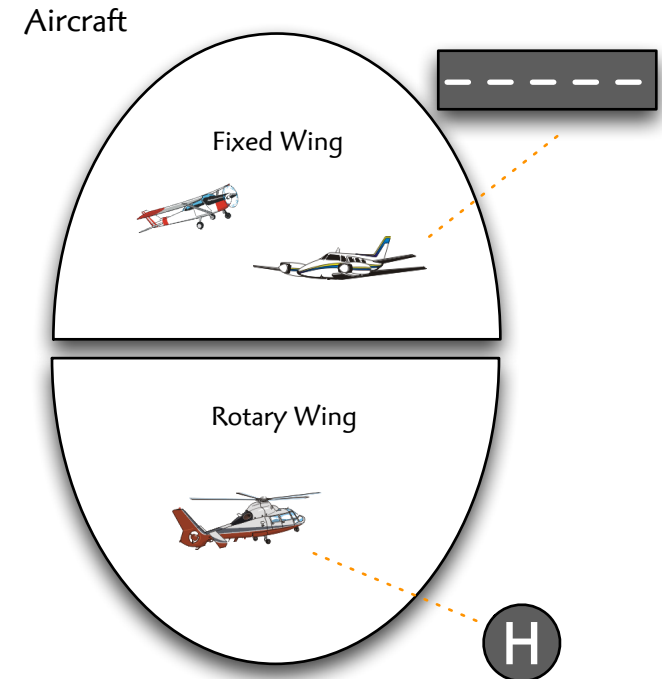


Example miUML Generalization Relationship



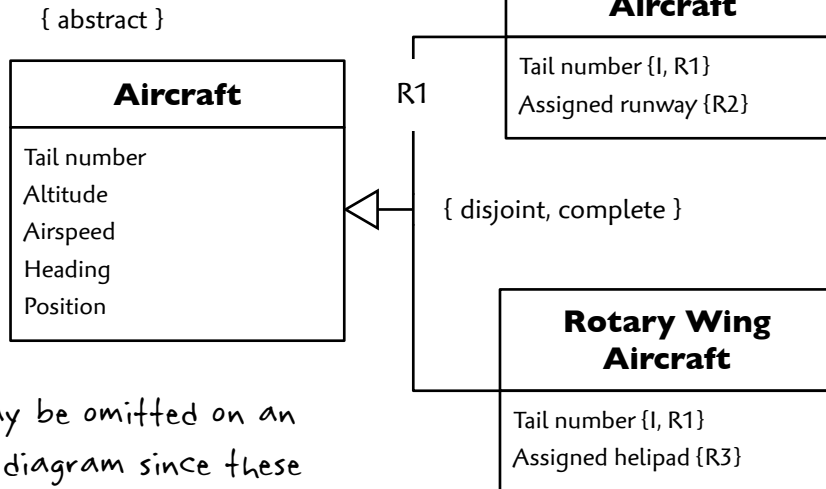
Subclasses (always two or more)

Abstracted set partitioning



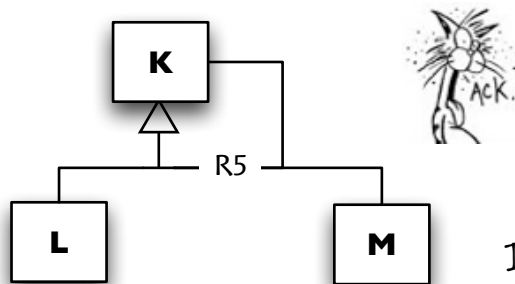
Export of Generalization from miUML to UML class diagram

Use these tags on a Generalization when publishing to a UML audience.



They may be omitted on an miUML diagram since these properties are the only possibility.

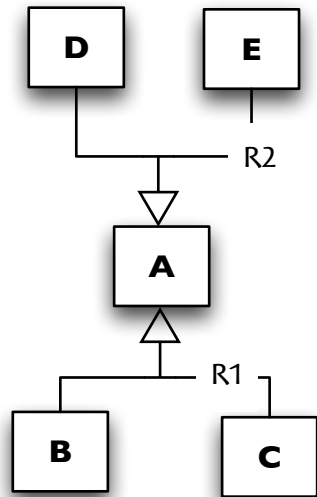
One role per Generalization



ILLEGAL!!!

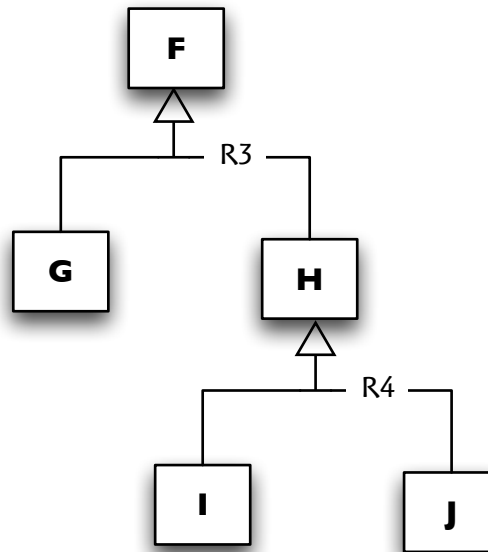
(K may not be a Superclass and Subclass in the same Generalization)

Multidimensional Generalization



The Class A is a Superclass in R2 and also a Superclass in R1.

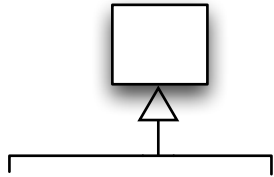
Multilevel Generalization



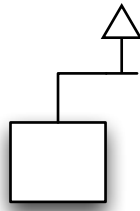
The Class H is a Subclass on R3 and also a Superclass on R4.

Generalization Roles

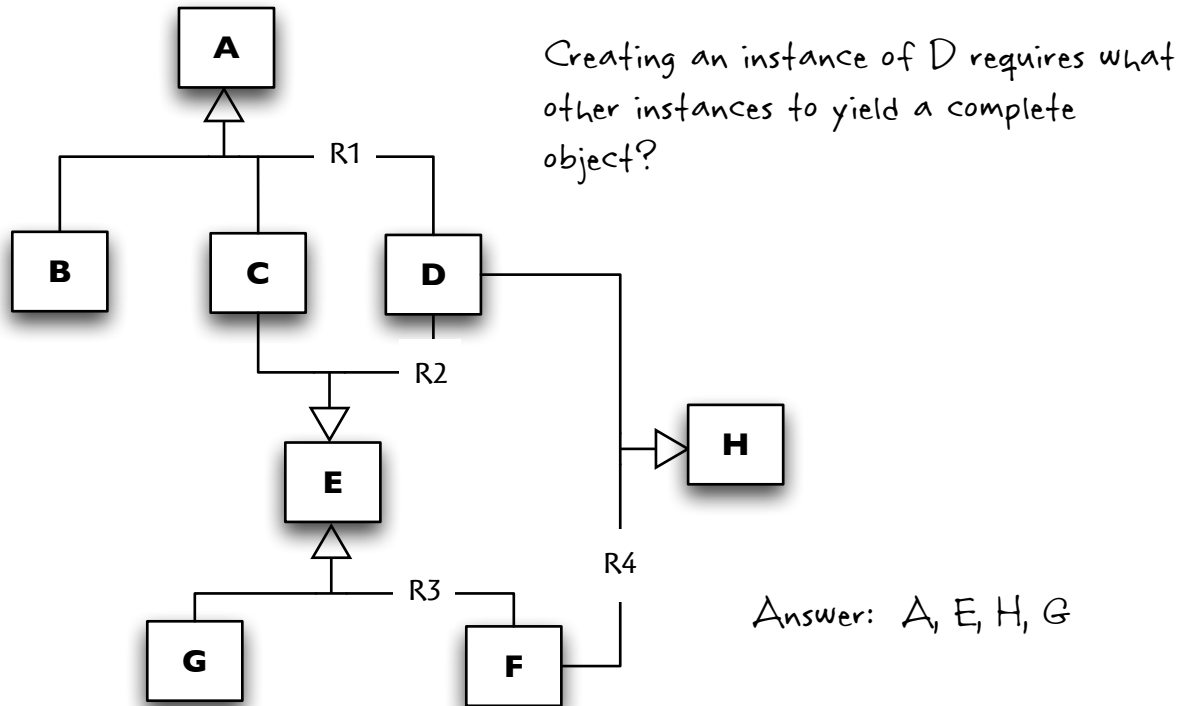
Superclass



Subclass

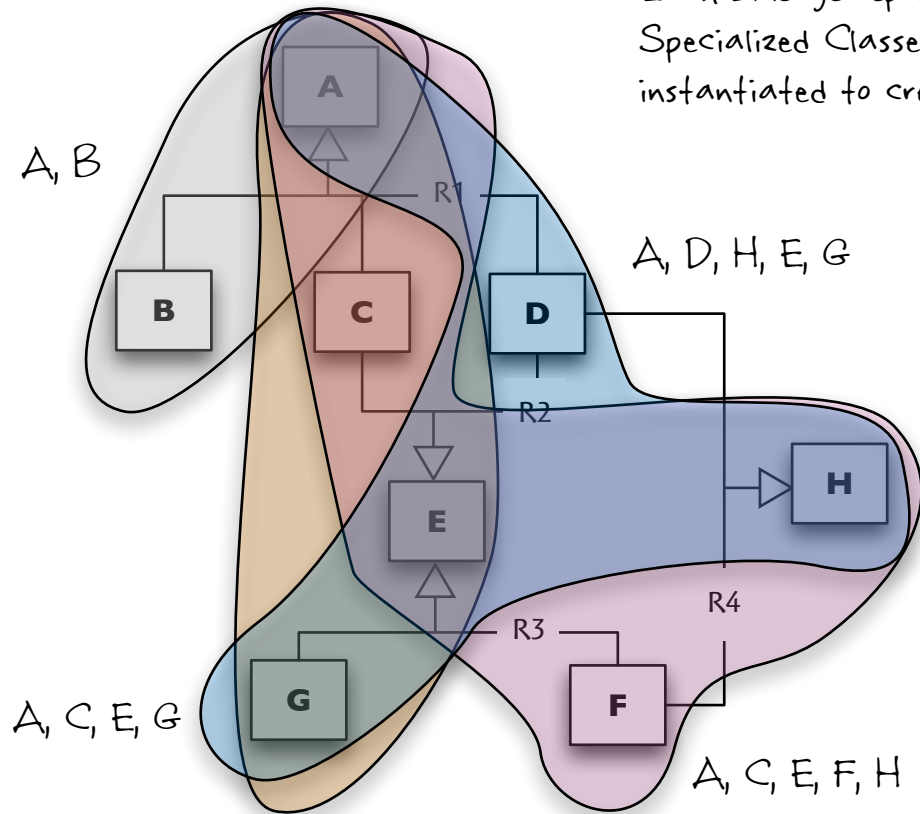


Instantiation in interconnected Generalization Relationships



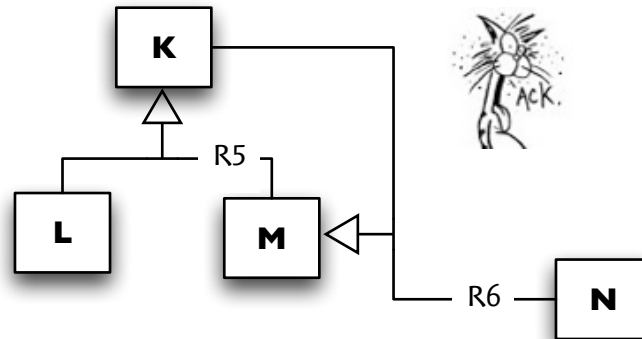
Lineages

Each Lineage represents a complete set of Specialized Classes that must be instantiated to create a complete object.



Illegal Lineage

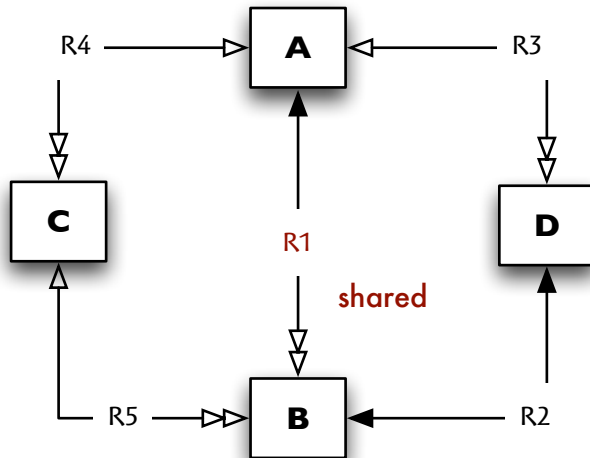
A cycle is illegal within a Lineage. In other words a Subclass may not be a Superclass of itself and a Superclass may not be a Subclass of itself.



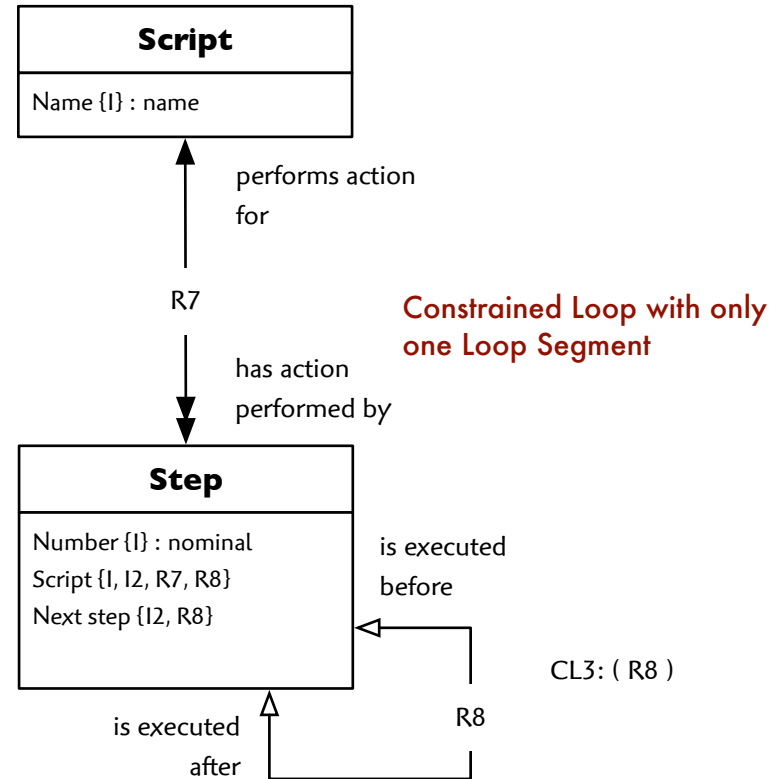
A shared Loop Segment

CL1: (R1, R2, R3)

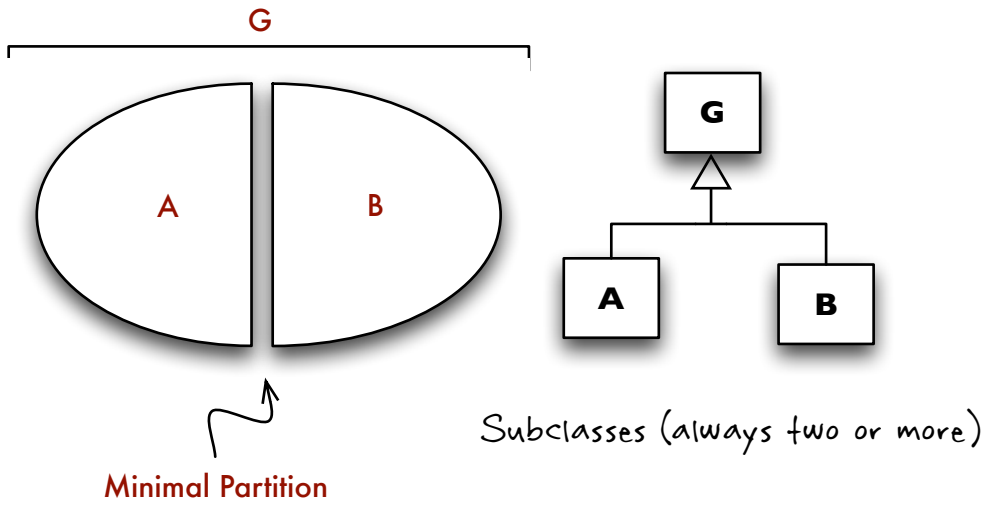
CL2: (R1, R4, R5)



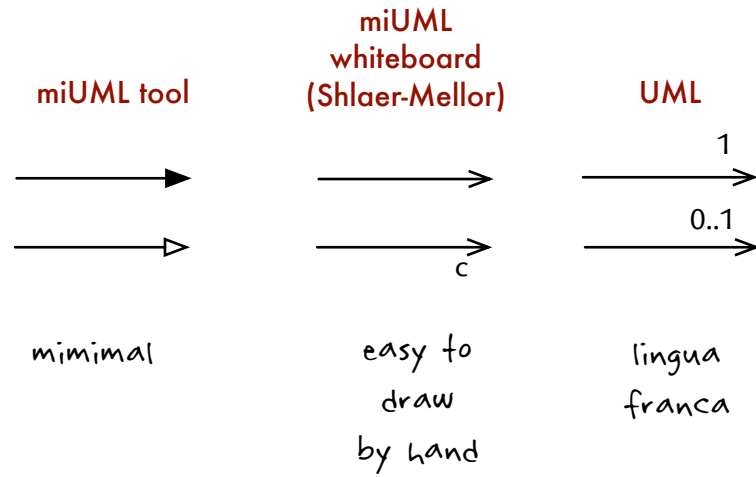
A Constrained Loop is a set (not ordered) of contiguous Relationships.



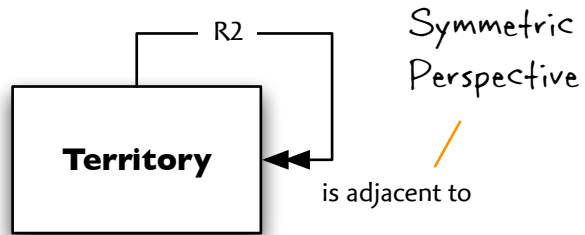
Since a Step may only follow another Step within the same Script, R8 constitutes a Constrained Loop.



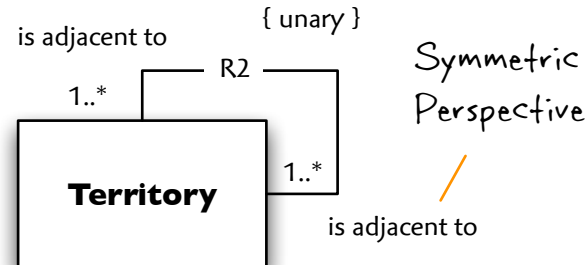
One Perspectives



miUML



Standard UML



The other dummy perspective is created automatically when the diagram is generated from a miUML model. A tag should be also be added to clarify.

