SYS466
Analysis and Design

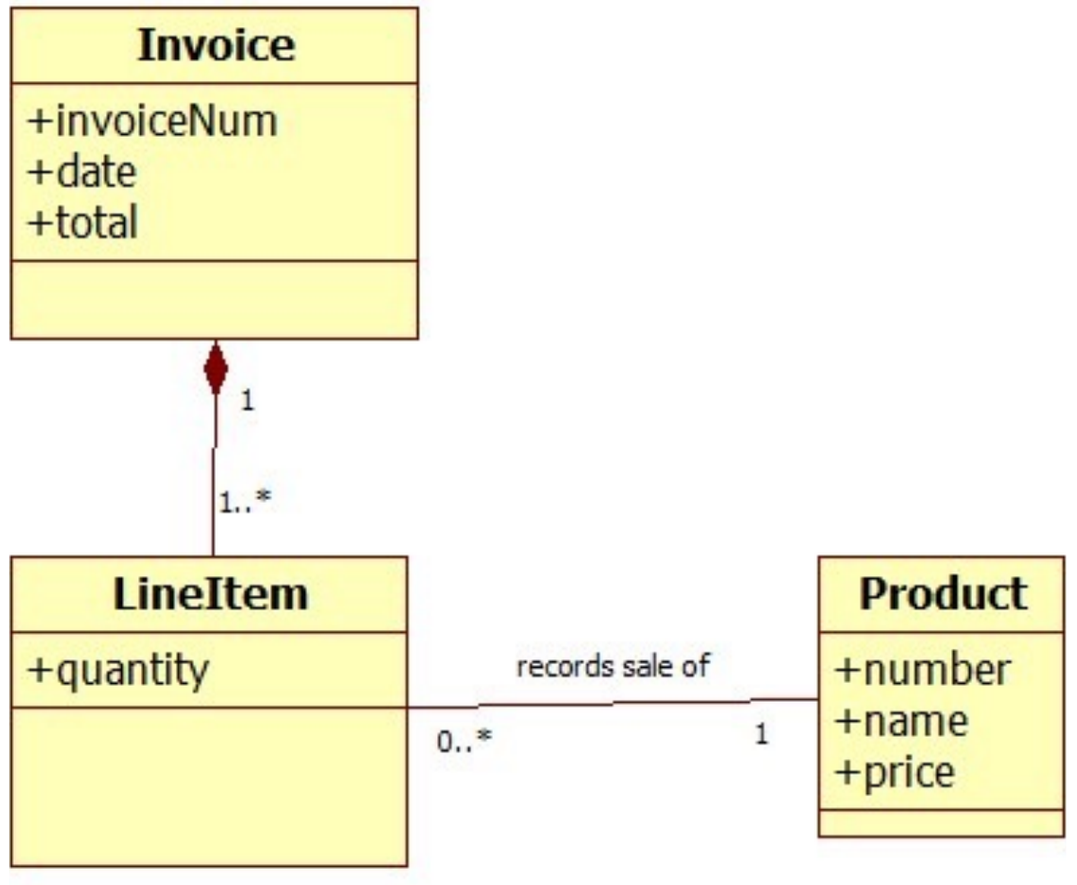
Lecture 8 - Composition/Generalization in Object Sequence Diagrams
School of Information and Communications Technology
Seneca College

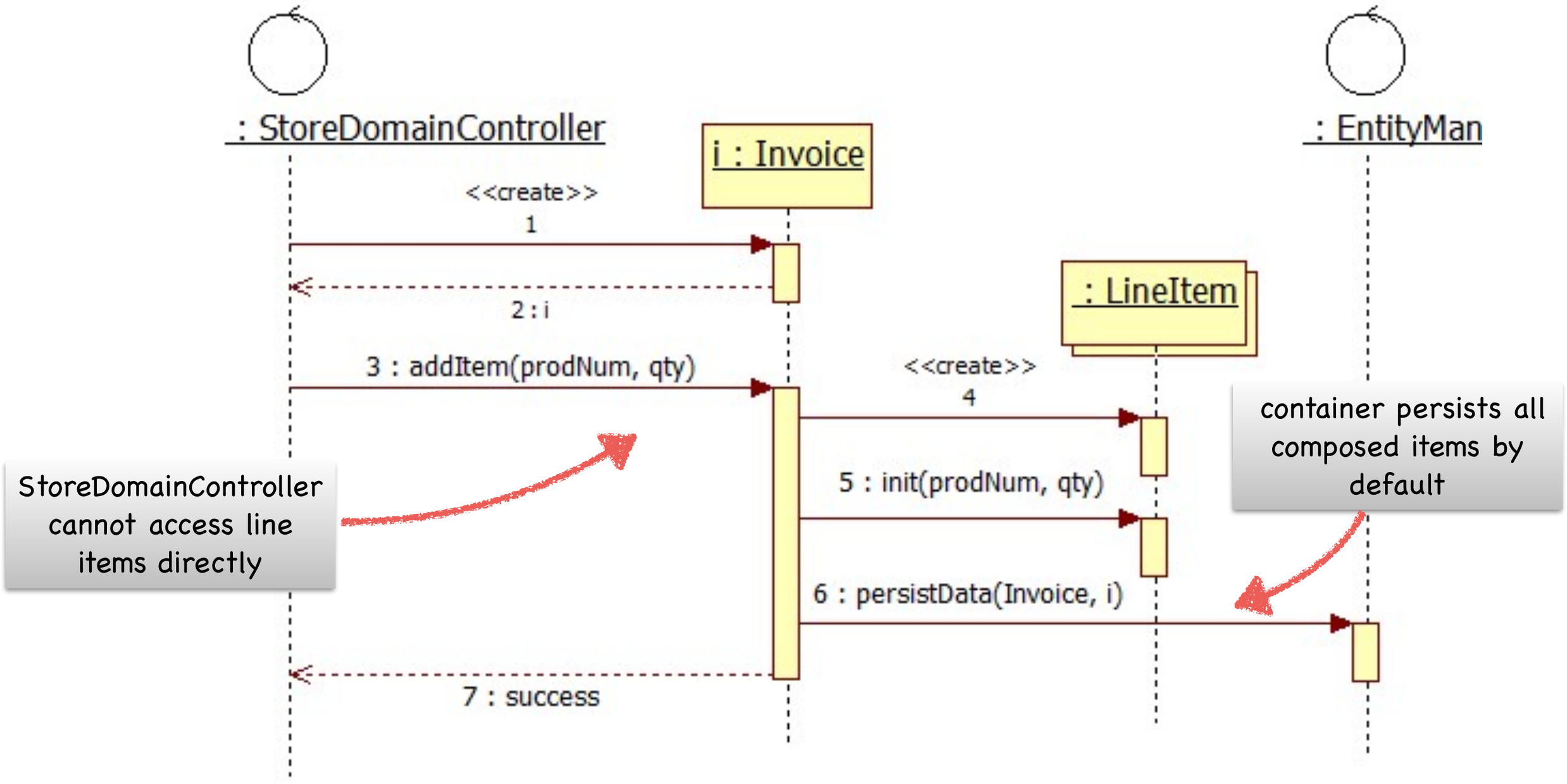
Composition

- when an container object <u>owns</u> other objects

- owned objects can not exist without container

- other objects are <u>only aware of the container object</u>





Composition in Sequence Diagrams

Calls to contained objects must go through the container

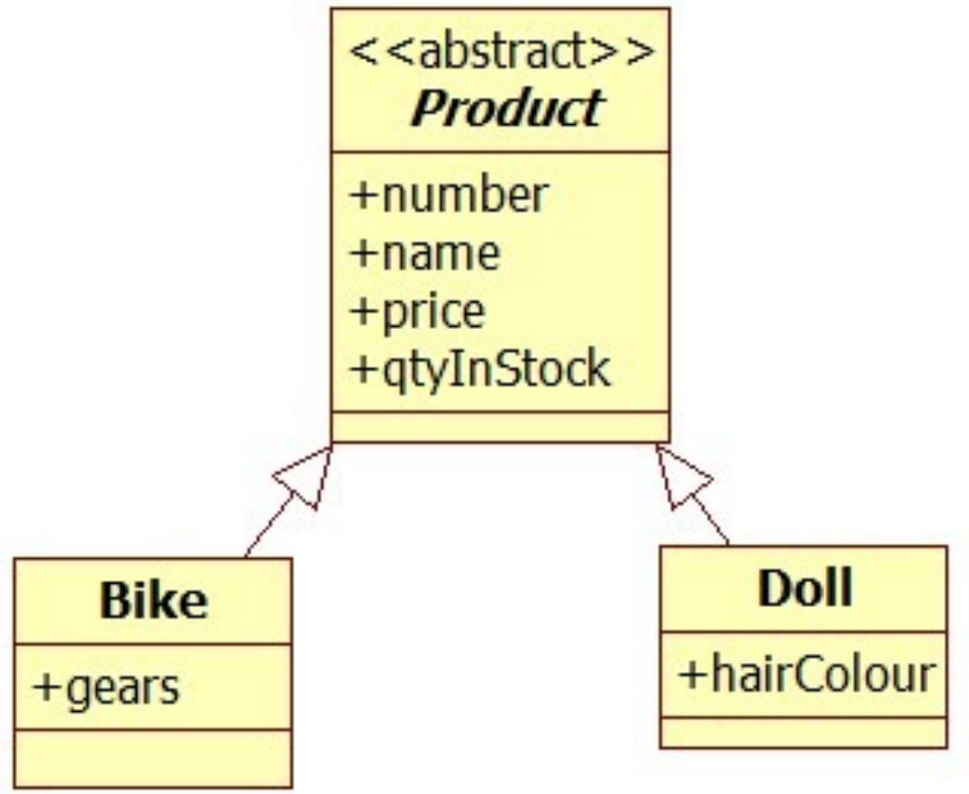
Generalization

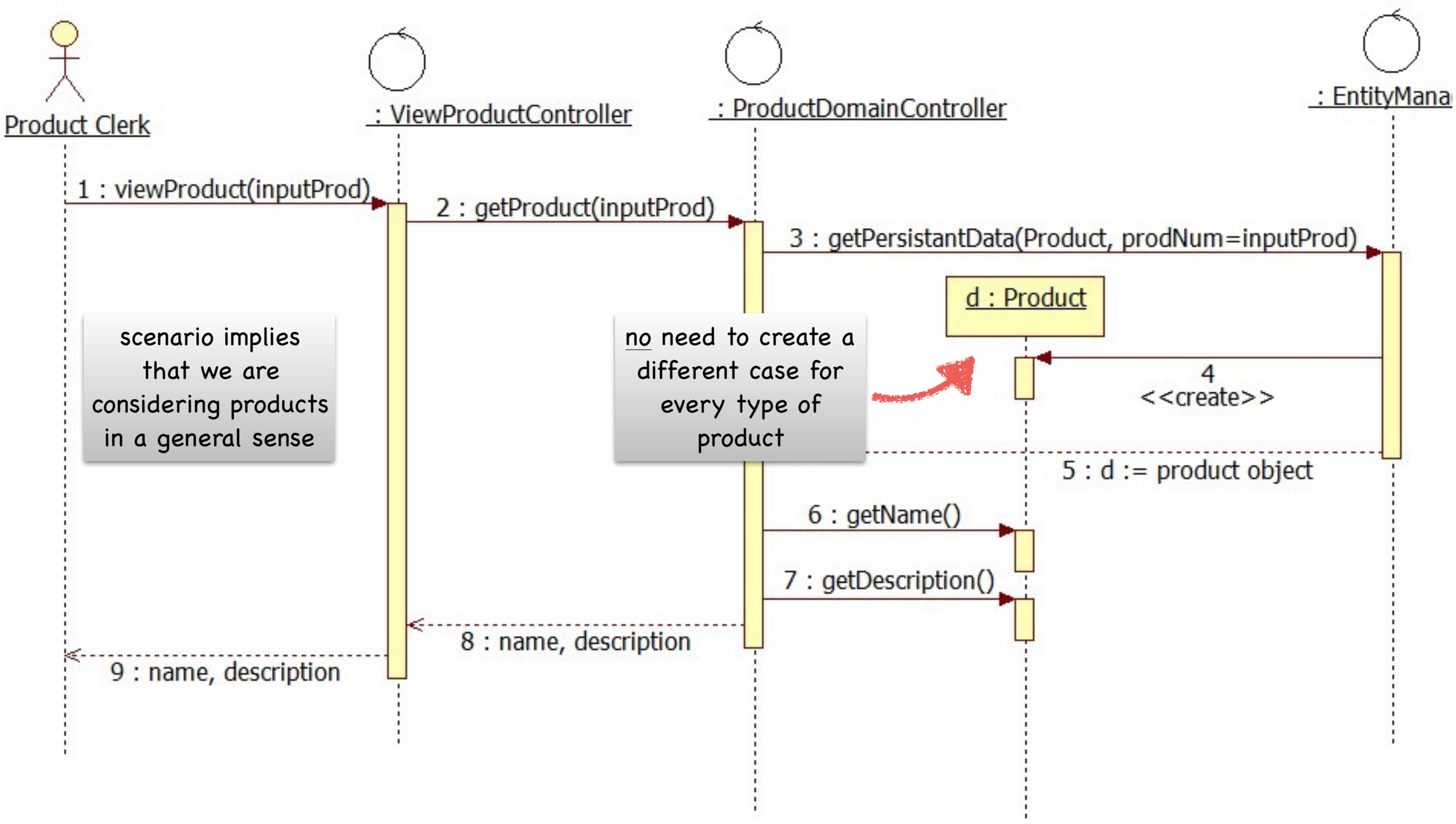
- when multiple classes share certain properties, they may be “grouped” into a conceptual hierarchy

- a superclass represents the general concept

- subclasses represent specializations of the superclass

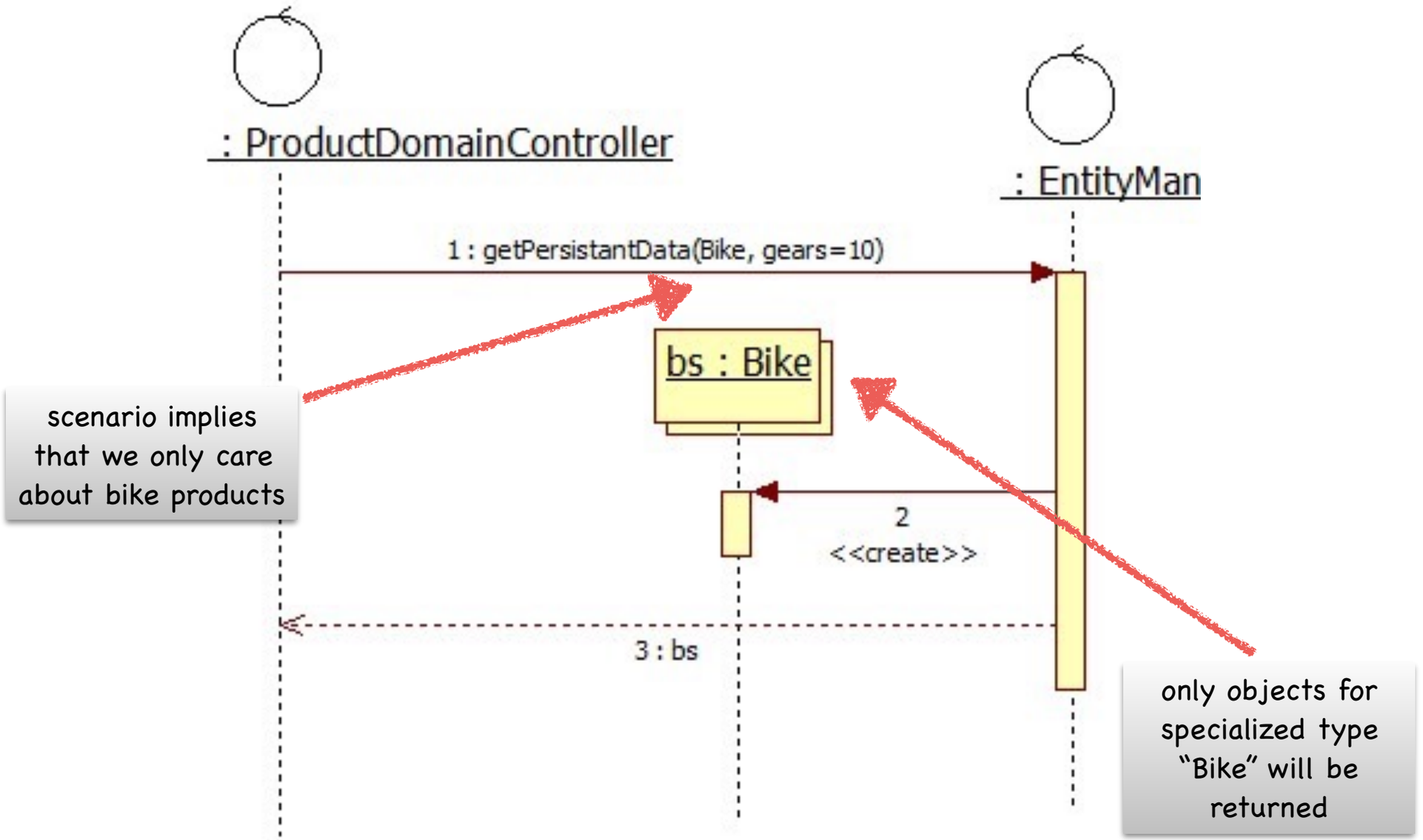
- the superclass is deemed to be abstract, if it can not be created in your conceptual model





Generalization In Sequence Diagrams

Refer to generalized class when you need to refer to their common attributes, and do not care which subclass you are referring to.



Specialization In Sequence Diagrams

Refer to specialized class when you need to refer to their unique attributes