

# Association Classes

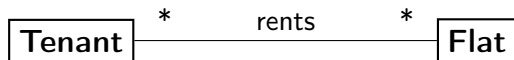
## Software Systems – Design – L3T3

Peter Lammich

Content: how to add extra information to associations

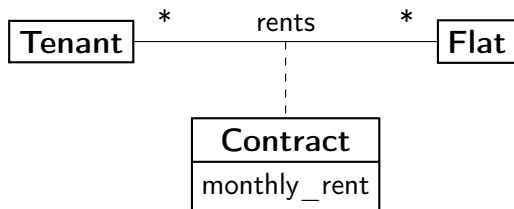
# Association Classes

Add extra information to association

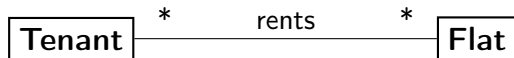


# Association Classes

Add extra information to association

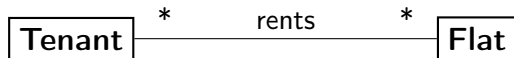


## Constraints implied by Associations

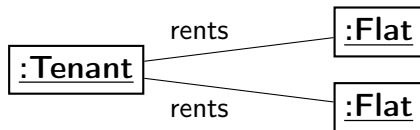


Associations cannot be duplicated between same objects

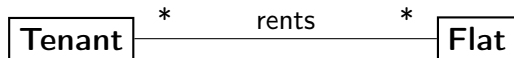
## Constraints implied by Associations



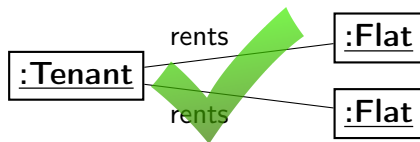
Associations cannot be duplicated between same objects



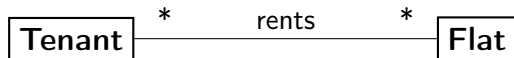
## Constraints implied by Associations



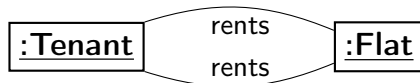
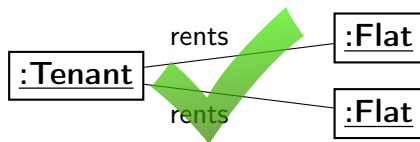
Associations cannot be duplicated between same objects



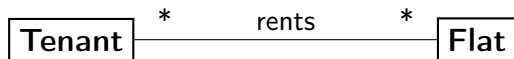
## Constraints implied by Associations



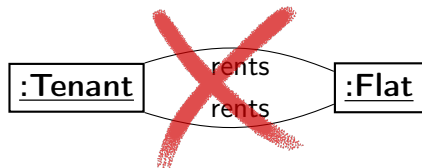
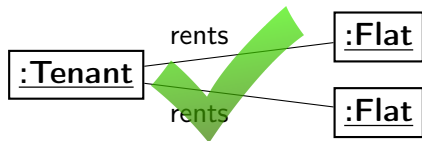
Associations cannot be duplicated between same objects



## Constraints implied by Associations

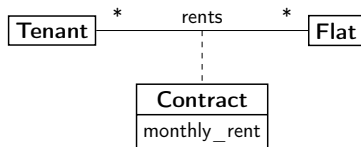


Associations cannot be duplicated between same objects



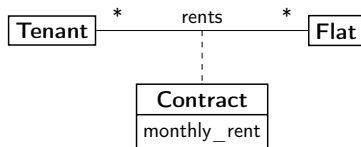


## Constraints implied by Associations

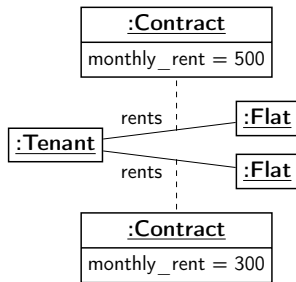


Association (classes) cannot be duplicated between same objects

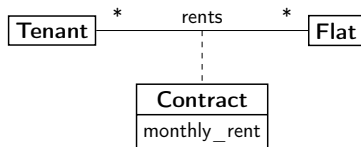
# Constraints implied by Associations



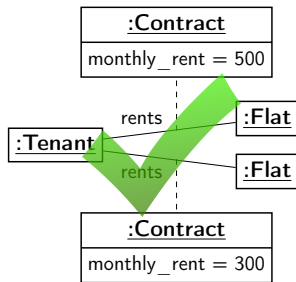
Association (classes) cannot be duplicated between same objects



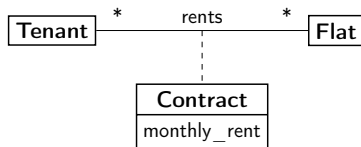
# Constraints implied by Associations



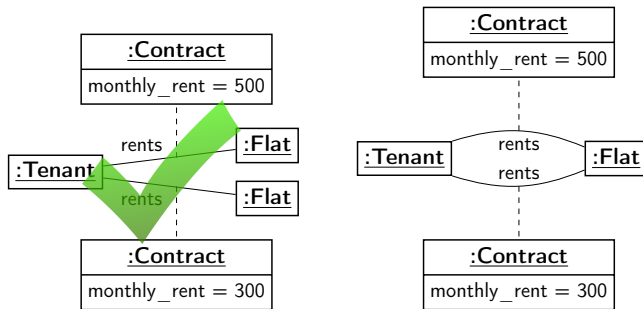
Association (classes) cannot be duplicated between same objects



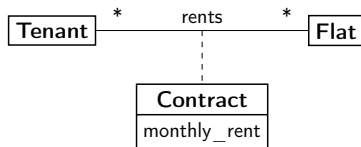
# Constraints implied by Associations



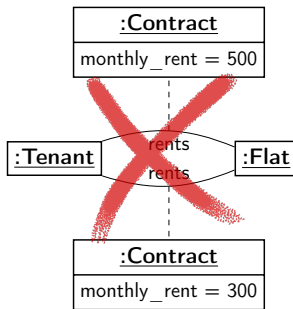
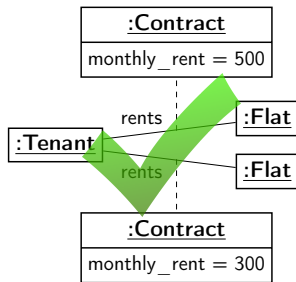
Association (classes) cannot be duplicated between same objects



# Constraints implied by Associations



Association (classes) cannot be duplicated between same objects



But ...

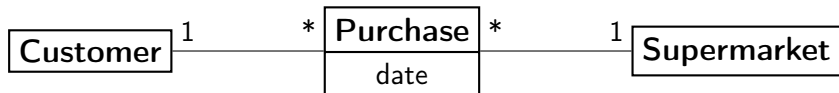
You can use properties, e.g. {nonunique}, to change this semantics.  
All the gory details in [UML Superstructure Spec](#) (Chapter 7.3.3)

But ...

You can use properties, e.g. {nonunique}, to change this semantics.  
All the gory details in [UML Superstructure Spec](#) (Chapter 7.3.3)

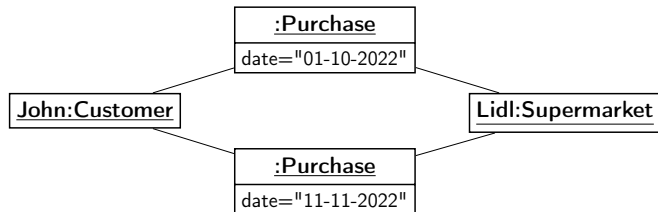
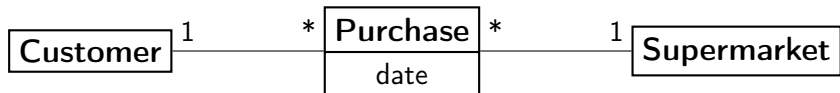
Remember: UML is meant to be easily readable!

## Using Normal Classes

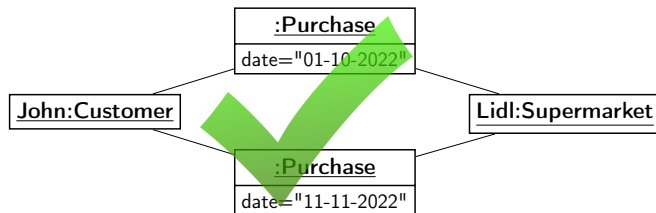
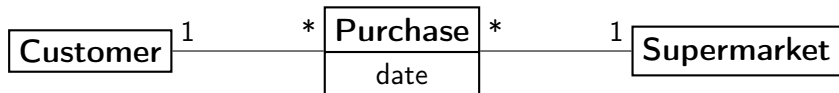




## Using Normal Classes



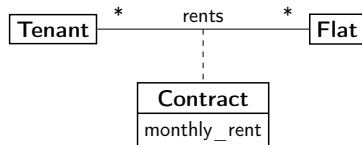
## Using Normal Classes



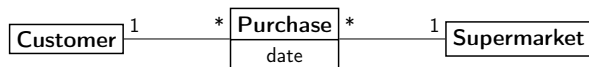
# Summary

Model association with extra information.

Are duplicate links between same objects required?



association class  
no duplicate links



normal class  
duplicate links possible

If possible, use association class!