

UML Overview

Unified Modeling Language

UML – symbology for diagrams

A note or comment

visibility

+ *public*
- *private*
protected
~ *protected*

stereotypes

<<*abstract*>>
<<*singleton*>>
<<*interface*>>

UML – symbology for static (class) diagrams

Class Name

Note: two different ways to show a class

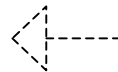
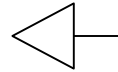
Class Name

instance attributes
Class Attributes

object methods
Class Methods

myObjectName:Class

Note: class method or Attributes are underlined.
An instance of a class is written as the instance name : the class name and underlined.



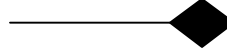
inherits from (points to parent)

implements this interface

composition (exclusively “owns it”)

- contains it
- the diamond on the owner
- shows the multiplicity (0 or more)

*

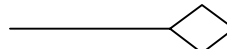


aggregation

- references it
- knows about it, doesn't own it
- the diamond is on the owner
- shows multiplicity (1 to 1 or more)

1..*

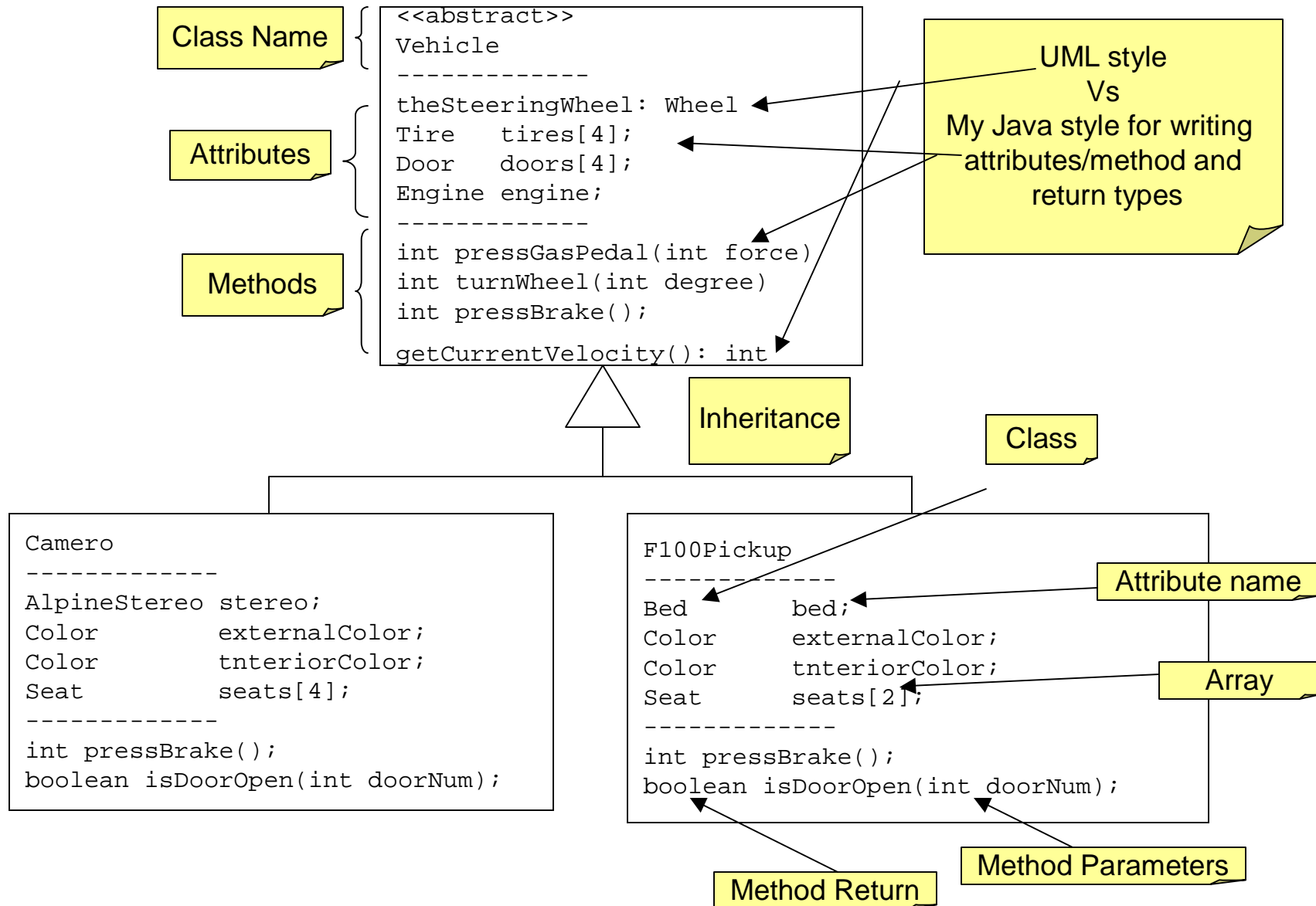
1



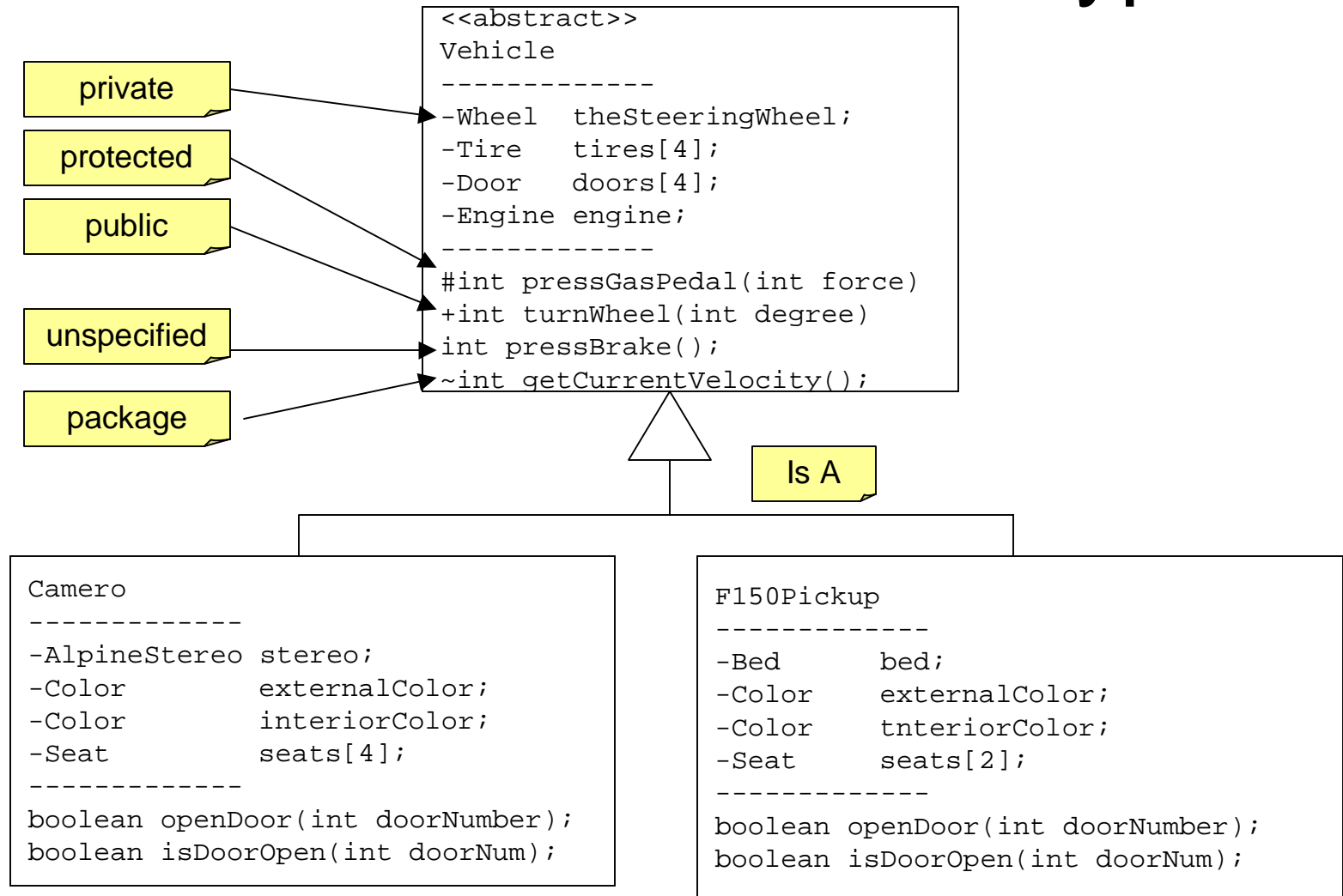
Points to an **Instance** of a class

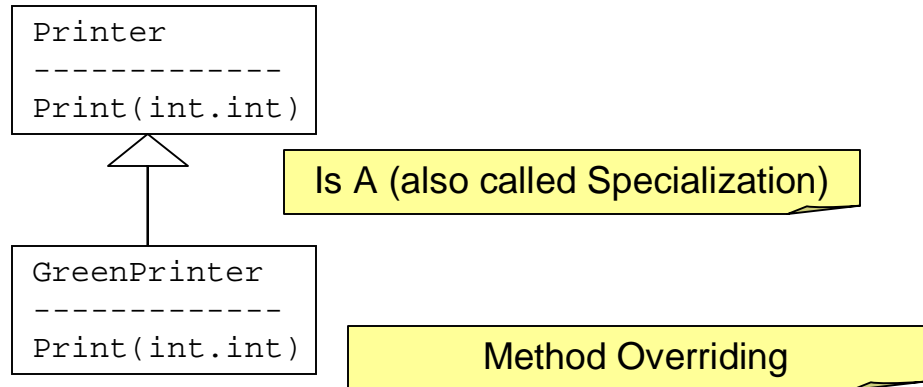
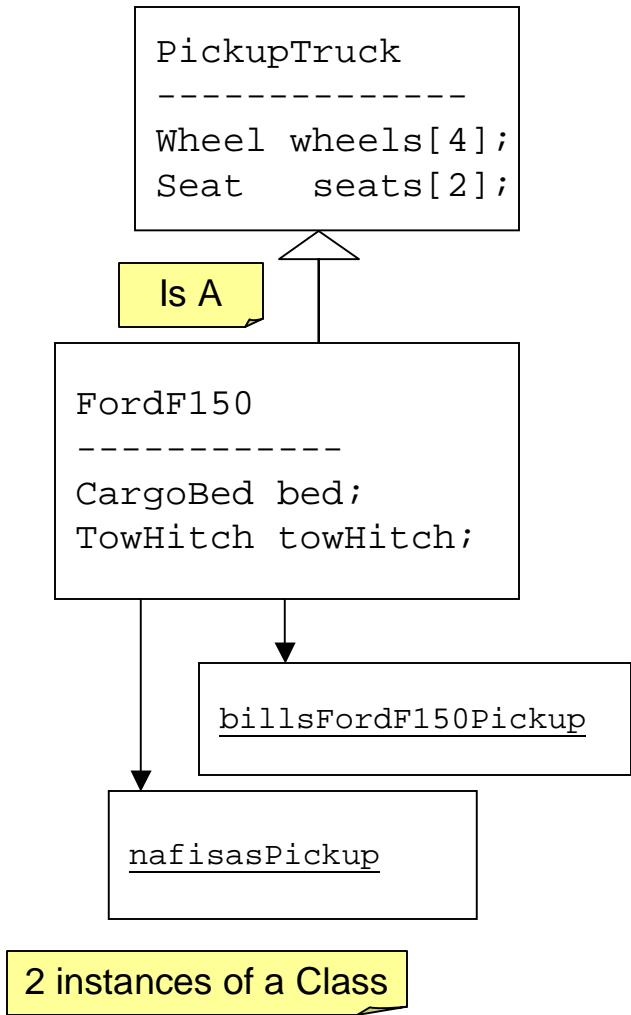


UML (Unified Modeling Language) – Class Diagram

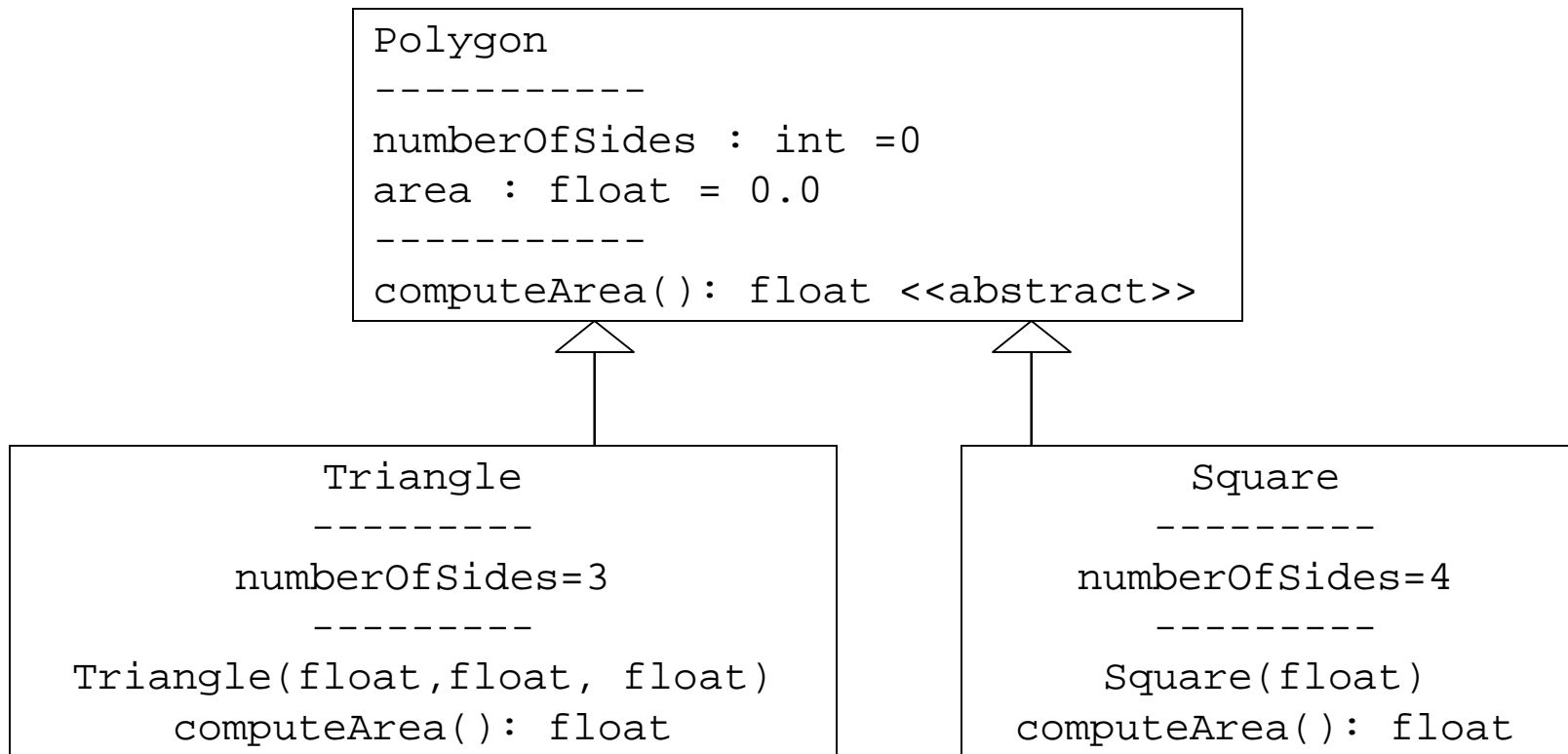


UML – modifiers & stereotypes

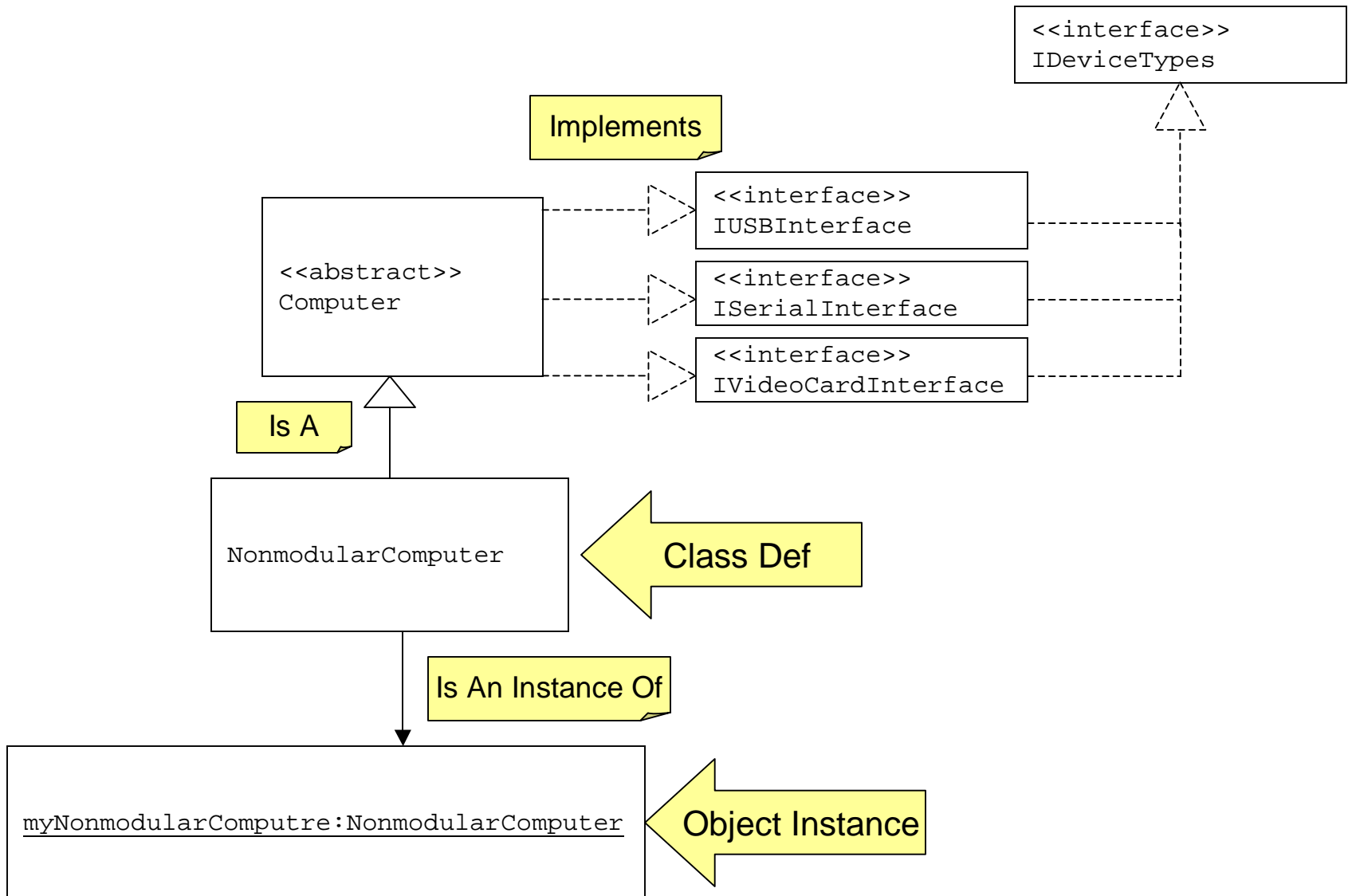




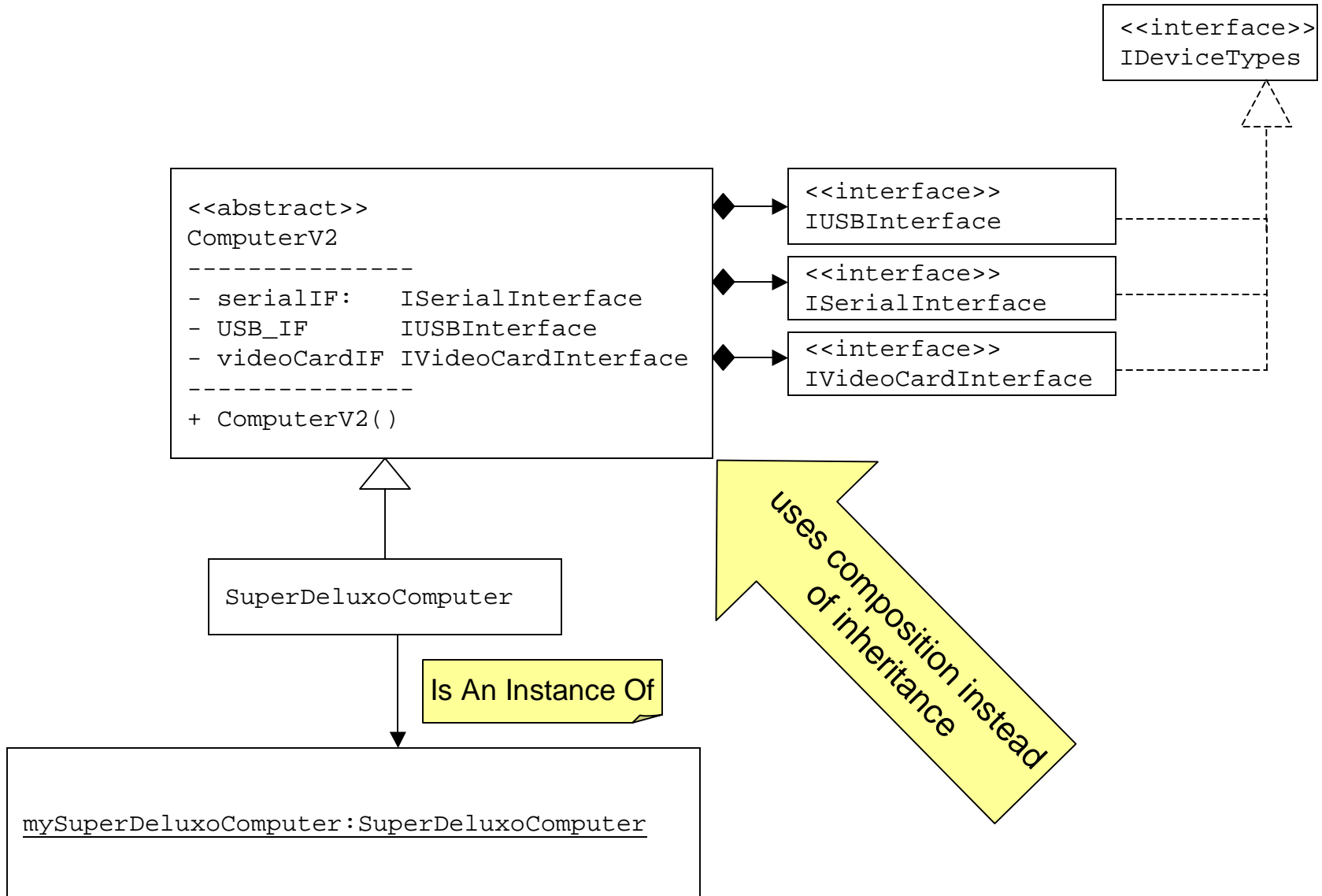
Polymorphic Classes Represented in UML



Computer class (UML)

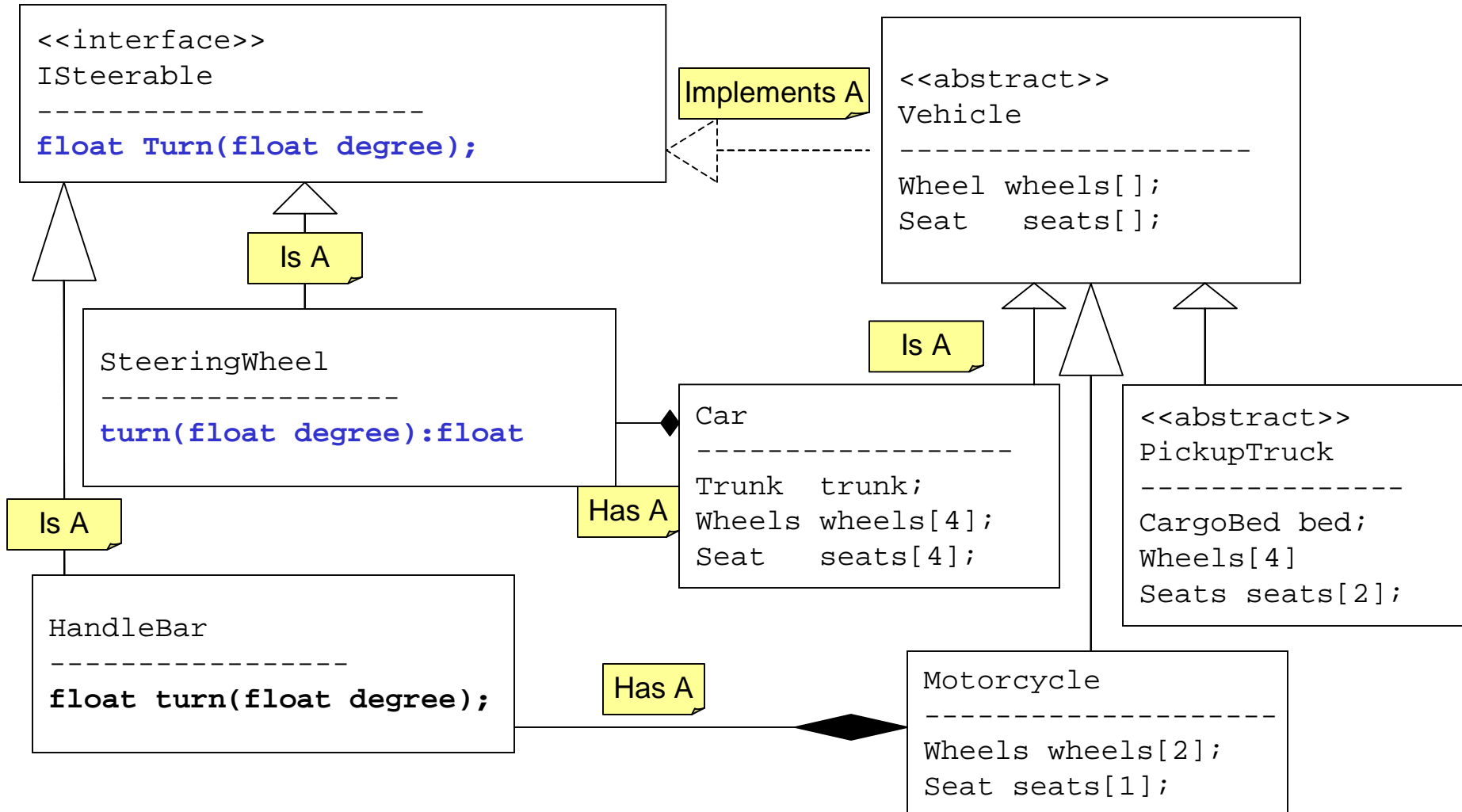


ComputerV2 class (UML)

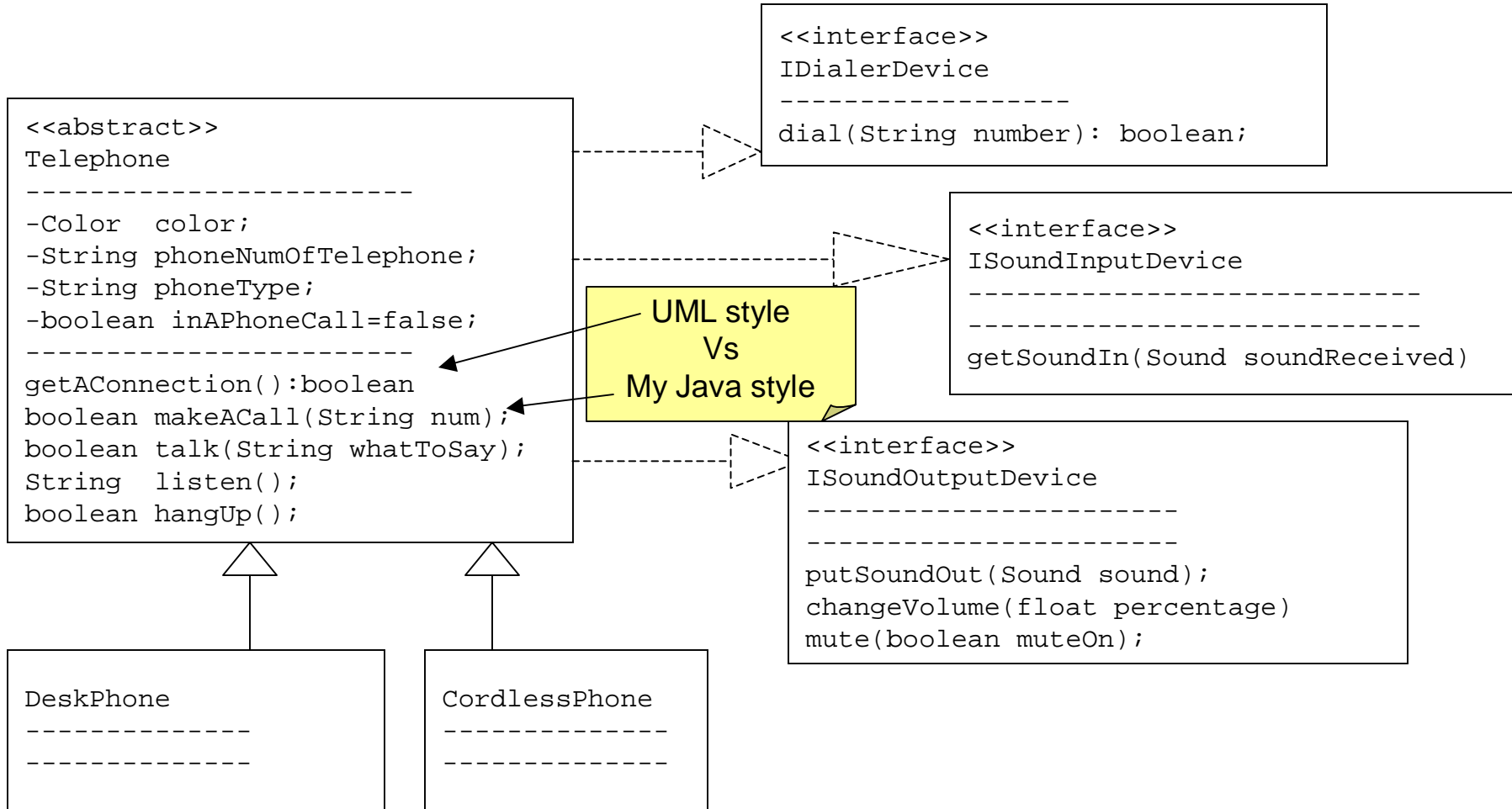


Inheritance

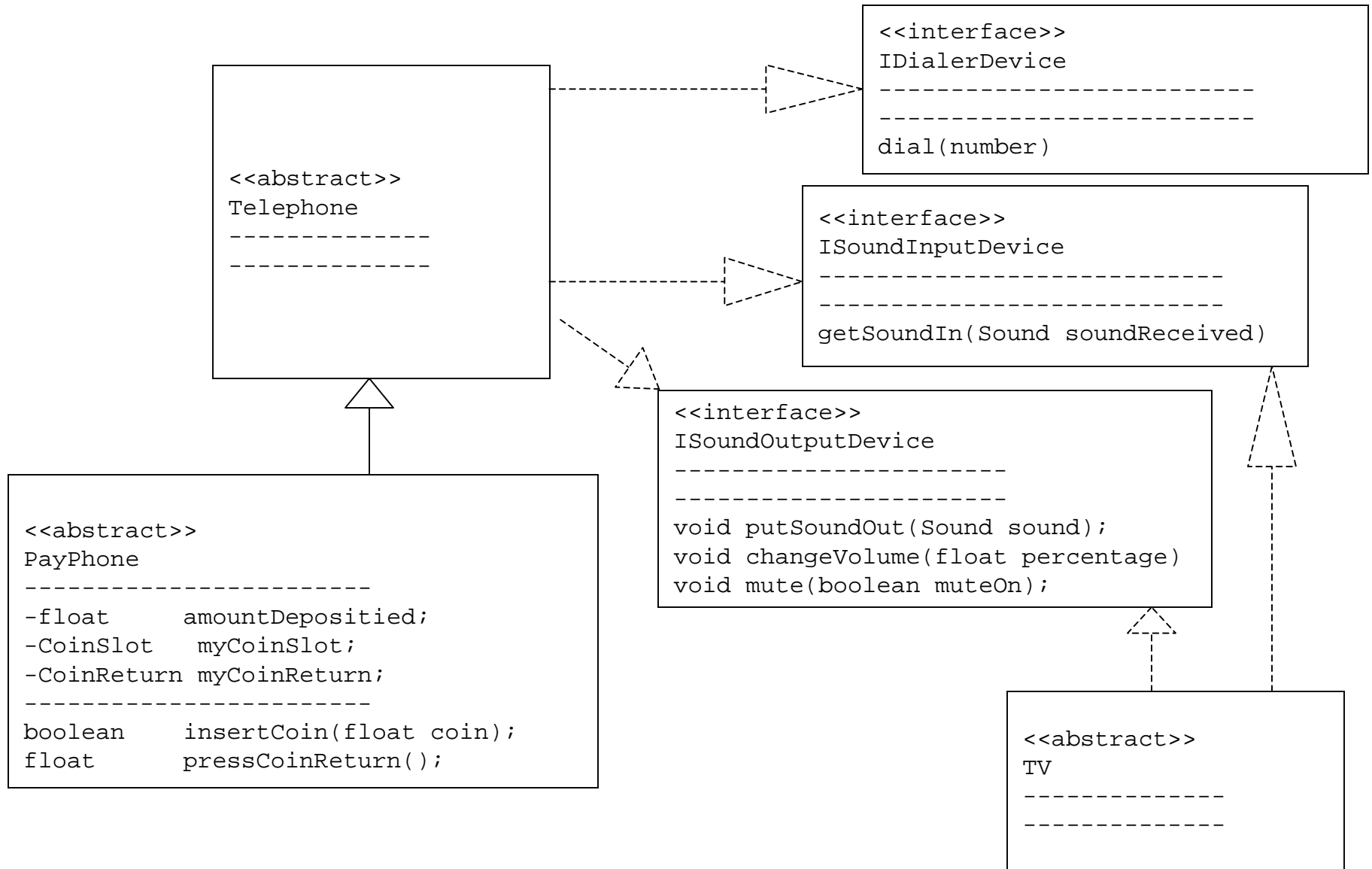
Note: UML allows two styles for writing methods and attributes. The java style and the more general way.)



Telephone class



PayPhone and TV classes



Subclasses – abstract and concrete

