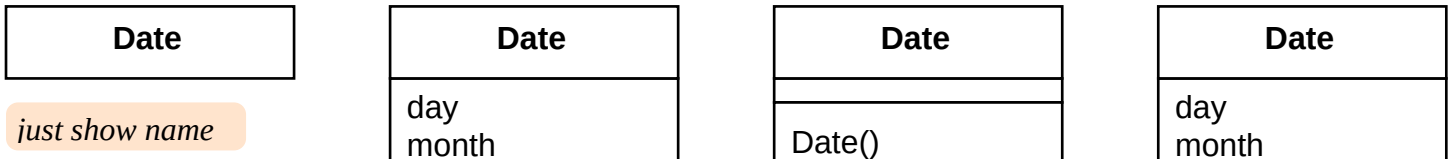
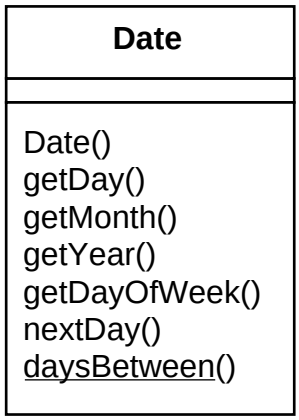
Classes

Representation of a Class

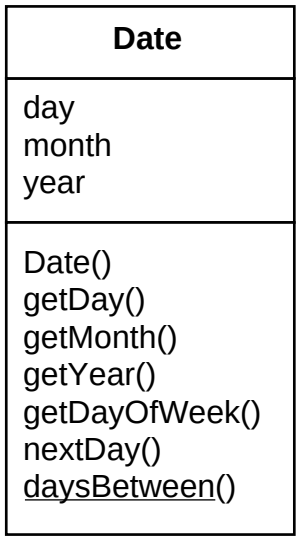


just show name

show name & variables

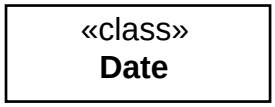


show name & methods



show name, variables & methods

Stereotype



optional: show stereotype, in «»

«class»
«interface»

Properties

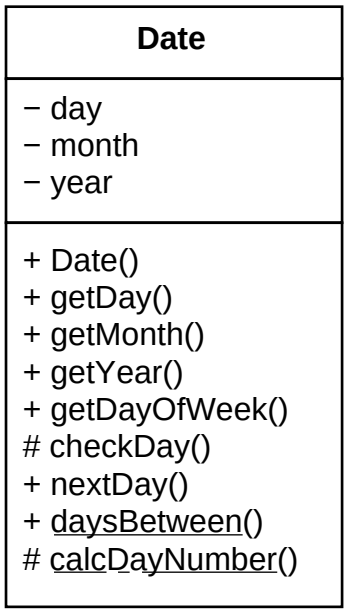
optional: show properties, in {}

{abstract}

Class Variables & Methods

Underline any class variables and methods.
*Or write **static** as part of the declaration.*

Visibility Markers

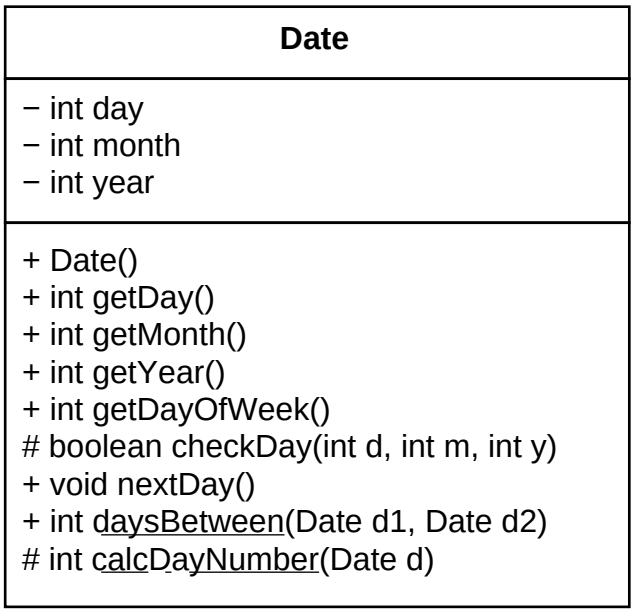


- is private
is protected
+ is public
@ is <package>*

**) UML does not define a visibility marker for Java's package visibility. Using @ is our own idea.*
BTW: Using package visibility is not recommended.

Suppressing the visibility marker does not mean the visibility is undefinded or public!

Show Java Declaration

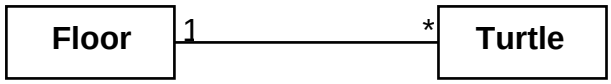


You can show the declaration, or just the name of methods & variables

You can show the visibility markers (+, #, −, @), show the Java visibility modifiers (public, protected, private or <package>) as part of the declaration, or suppress all visibility information.

Relationships between Classes

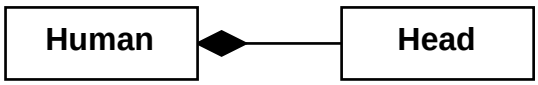
Association (uses a)



Multiplicity:
1 means: exactly one
0..1 means: zero or one
1..* means: one or more
*** means: zero, one or more

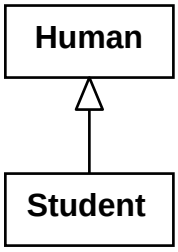
A Turtle walks on exactly one floor.
A floor may be used by multiple turtles.

Composition (contains a)

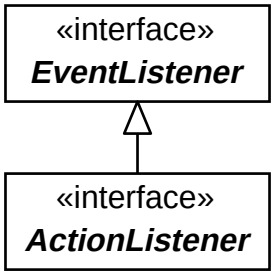


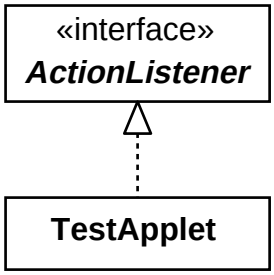
A Human has a Head. A Head is an inherent part of a Human, it is "exclusively owned" by the Human.

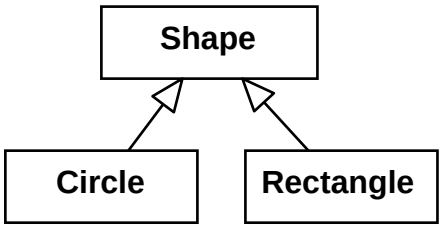
Inheritance (is a)



A Student is a Human.
*Student **extends** Human.*







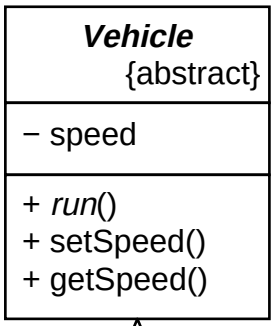
ActionListener is an EventListener.
*ActionListener **extends** EventListener.*

TestApplet is an ActionListener.
*TestApplet **implements** ActionListener.*

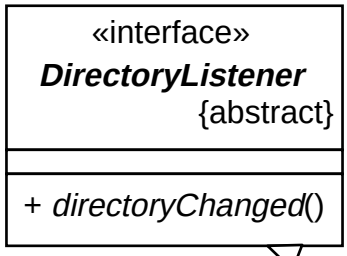
Abstract Classes, Abstract Methods & Interfaces

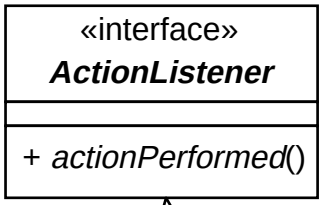
abstract class:
write name in italics or specify {abstract} property

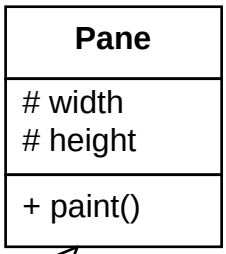
interface:
specify «interface» stereotype and write name in italics or specify {abstract} property



abstract method: write name in italics or specify {abstract} property







*DirectoryPane **implements** DirectoryListener and ActionListener.*

*DirectoryPane **extends** Pane.*