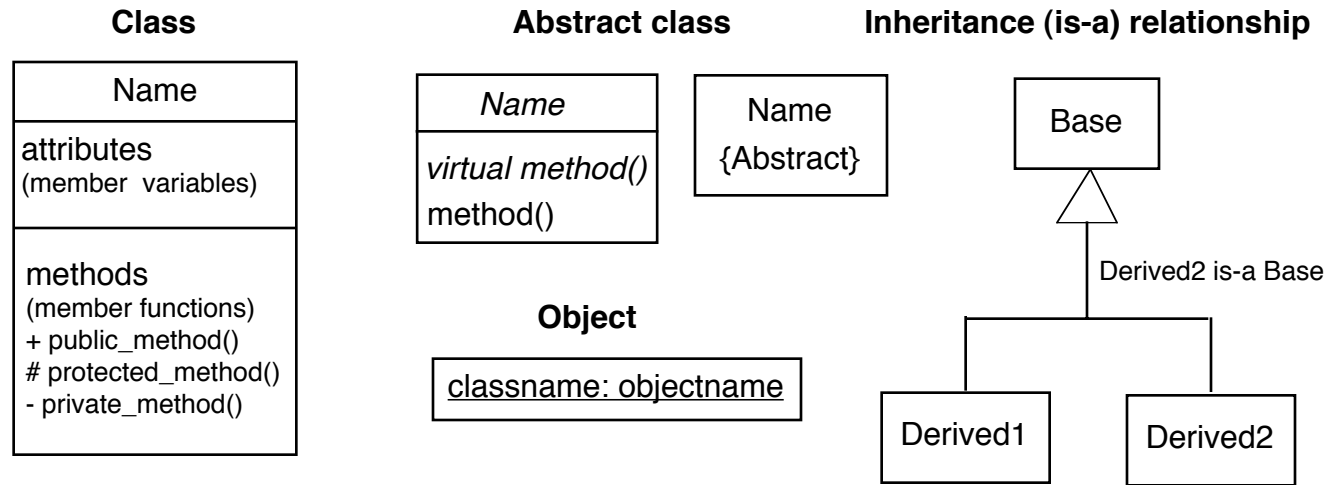
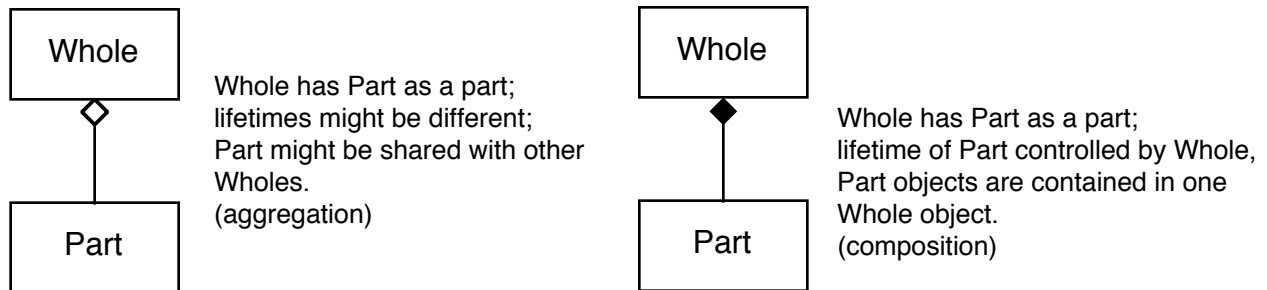


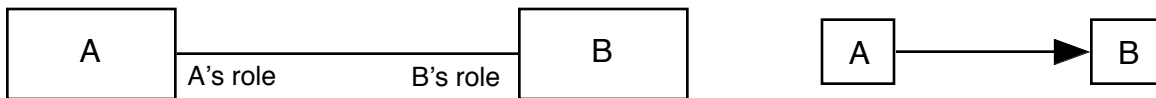
# Basic UML Class Diagram Notation



## Aggregation and Composition (has-a) relationship

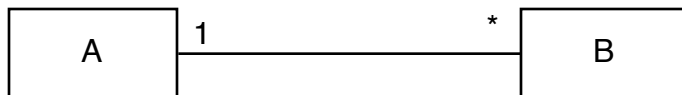


## Association (uses, interacts-with) relationship



## Multiplicity in Aggregation, Composition, or Association

\* - any number      0..1 - zero or one      Follow line from start class to end class, note the multiplicity at the end.  
 1 - exactly 1      1..\* - 1 or more      Say "Each <start> is associated with <multiplicity> <ends>"  
 n - exactly n      n .. m - n through m



Each A is associated with any number of B's.  
 Each B is associated with exactly one A.