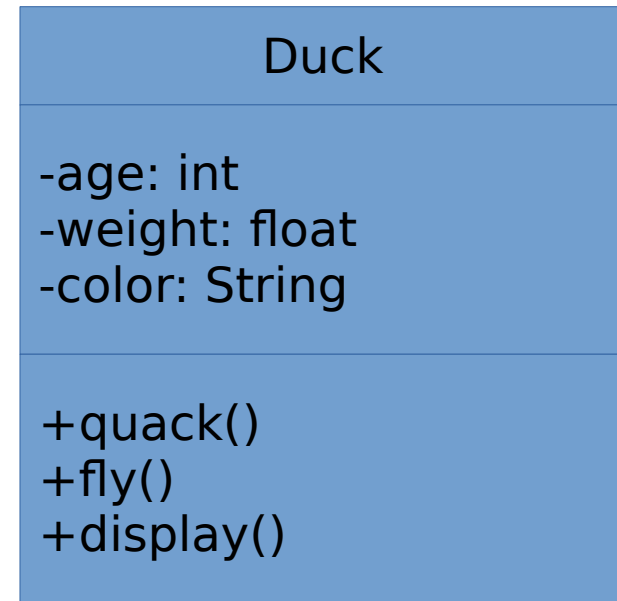


Encapsulation & Inheritance

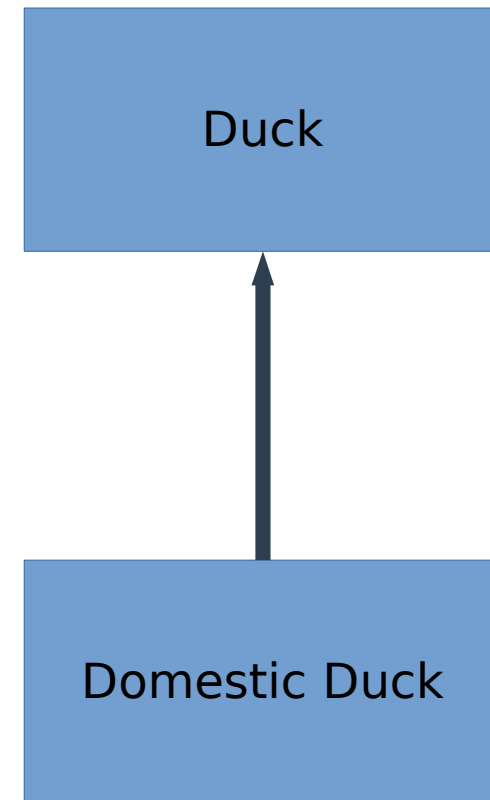
Simple Class

- Simple class diagram
 - -ve sign for hidden
 - +ve sign for public
 - : followed by type
-
- A Duck can quack
 - A Duck can fly
 - A Duck can display



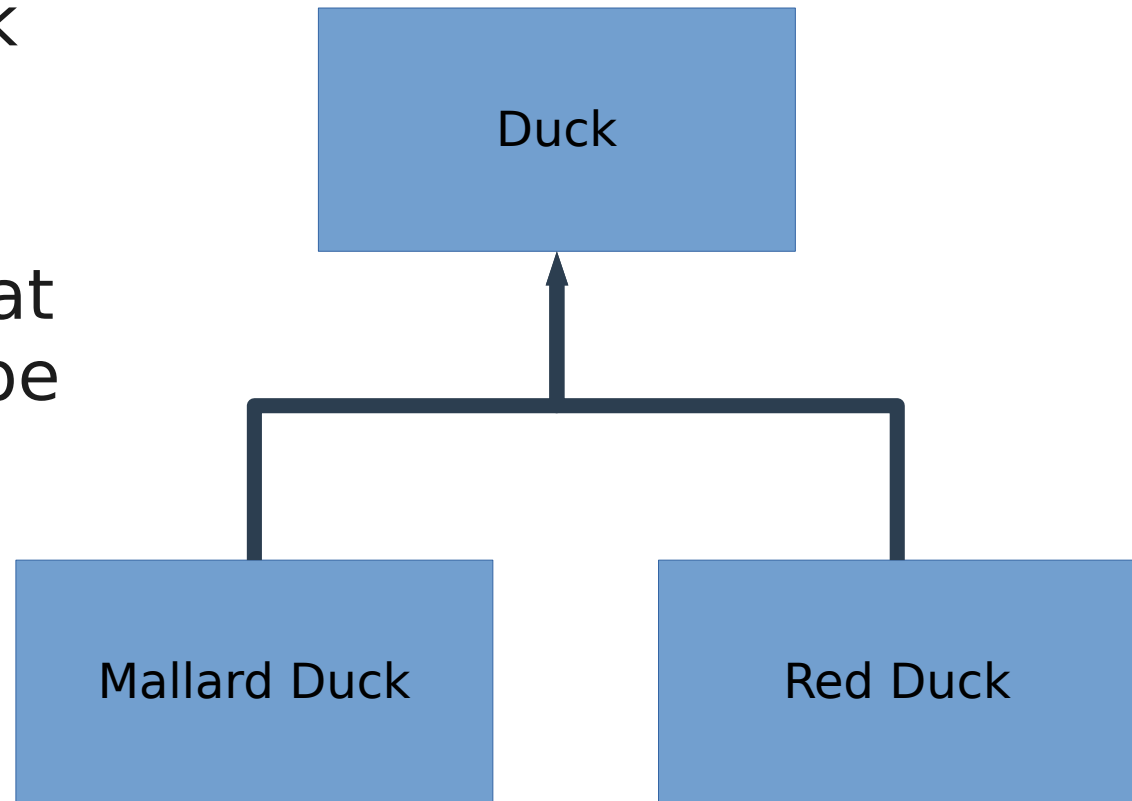
Simple Super Class

- A Parent Class has a properties
- Child Inherits Parent Properties
- Child class has IS-A relationship with the parent class



Multiple Sub-Classes

- All properties from Duck are inherited by all subclasses
- Super class decides what to expose and what to be kept hidden
- Subclass can override any specific property or behavior
- Subclass can overload too

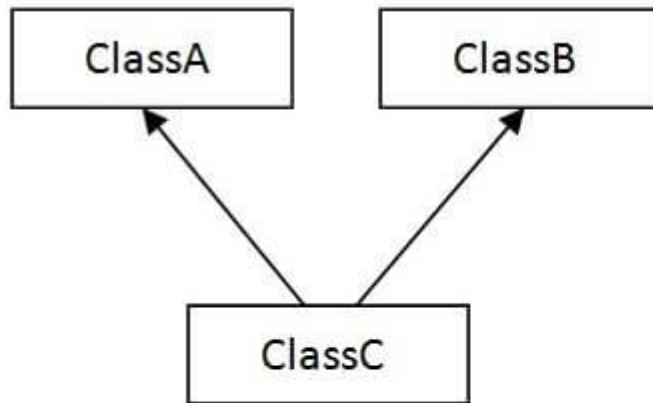


Sub-Class that overrides

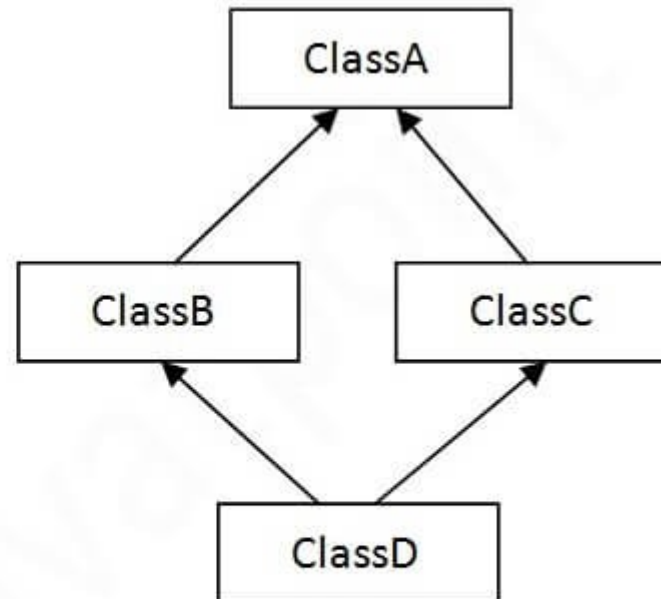
- A rubber duck cannot fly
- It has weight but not age
- It has color
- It can quack
- It can display

Rubber Duck
-age: int -weight: float -color: String
+quack() +fly() +display()

Multiple Inheritance in Java



4) Multiple



5) Hybrid

Assignment

- Create a Decoy Duck object
- A Decoy duck has no age
- It can neither quack nor fly
- It can display itself