Inheritance → Idea of a class "inheriting" properties from another class

Vehicle Superclass

Superclass → subclass

is-A relationship

"Specialized vehicle"

Car   Bus   Train

subclass

Steam Engine Train   Diesel Engine Train

"Specialized trains"
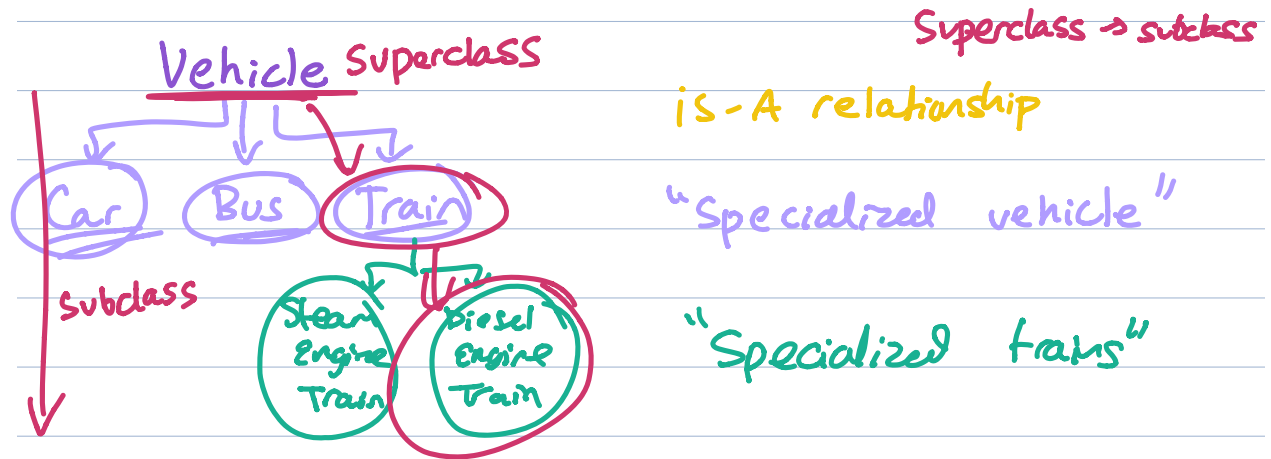
Hierarchy is created

⭐ Constructors are NOT inherited!

Class Vehicle	Superclass Of →	Class Train	Superclass Of →	Class Diesel Engine Train
F name (String) →		F name (String) →		F name (String)
F make (String) →		F make (String) →		F make (String)
F Model (String) →		F Model (String) →		F Model (String)
C Vehicle (....)		C Train (....)		C Diesel Engine Train (....)
M move Forward ( ) →		M move Forward ( ) →		M move Forward ( )
		F Conductor (String) →		F Conductor (String)
				F Oil Level (double)
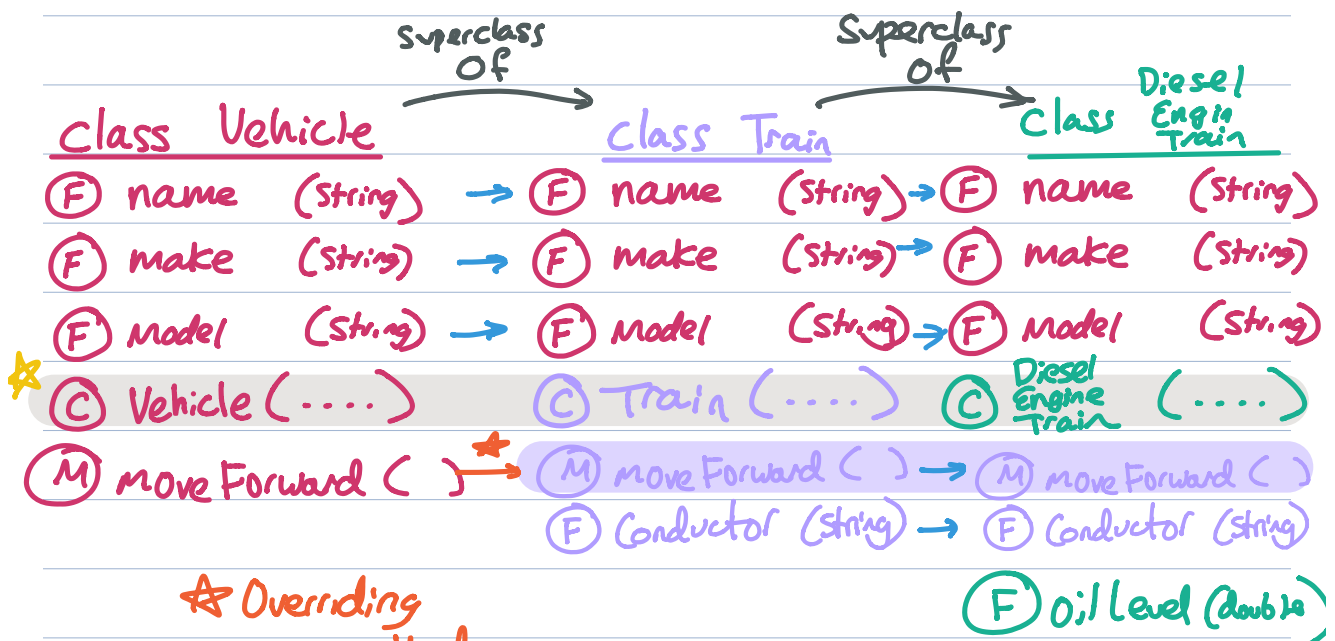
⭐ Overriding a method

```java
class Vehicle {
    // fields
    public String name;
    public String make;
    public String Model;

    // constructor
    public Vehicle (....)
    {/* implementation not shown */}

    public void moveForward() {
        // do something
    }
}

class Train extends Vehicle {

    // field
    public String conductor;

    // constructor
    public Train (....)
```

```
    { /* implementation not shown */ }

    public void moveForward() {
        // do something else
    }
}
```
} — Overriding the method

```
class DieselEngineTrain extends Train {

    // field
    public double oilLevel;

    // constructor
    public DieselEngineTrain(....)
    { /* implementation not shown */ }

}
```

Super(params) → accesses the superclass's constructor

List of Vehicles ← Train ✓
List of Trains ← Vehicle ✗