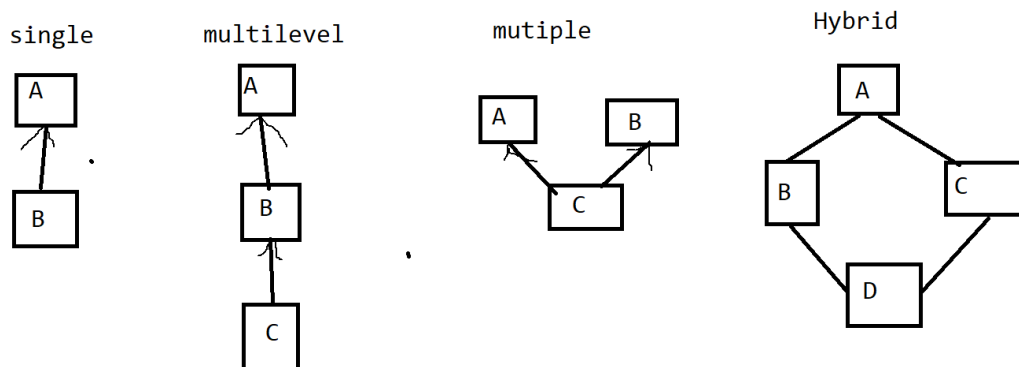


There may be the relation between the classes.

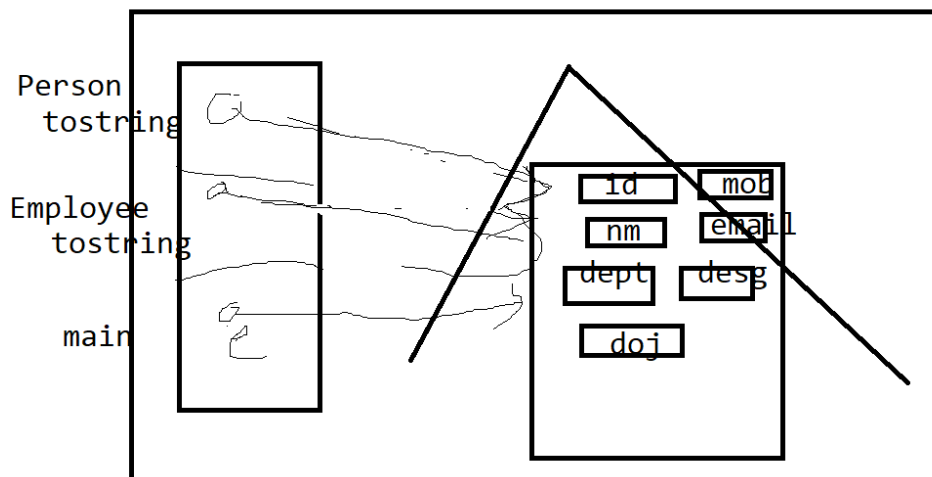
1. Inheritance(ISA relationship)
  - a. Parent class
  - b. Child class
2. Association(HasA relationship)
  - a. Composition → tight coupling
    - i. Nested classes
  - b. Aggregation → loose coupling
    - i. Then add objects of one class into another class.

Types of Inheritance:



Java supports single and multilevel inheritance.

If you want multiple inheritance, then we use interfaces.



1. When you find common members in the class, then move those common members in parent class. And inherit it in the child class.
2. Upcasting is implicit and down casting is explicit.
3. Parent reference can point to child class object but using that references if you want to call child class method, you need to do explicit typecasting.

Example:

```
Employee e1=new SalariedEmp();
```

```
((SalariedEmp)e1).getBonus();
```

4. In parametrised constructor of child class, add all members of parent class constructor, and call parametrised constructor of parent explicitly,