

Hirerachy

has-a (Associtaion)	Depenedent Dependency	
is-a (Inheritance)	Child	Parent

Association -> If Object of another class required to be created multiple times inside your class
Inheritance -> If object of another class required to be created only once inside your class

PrintStream

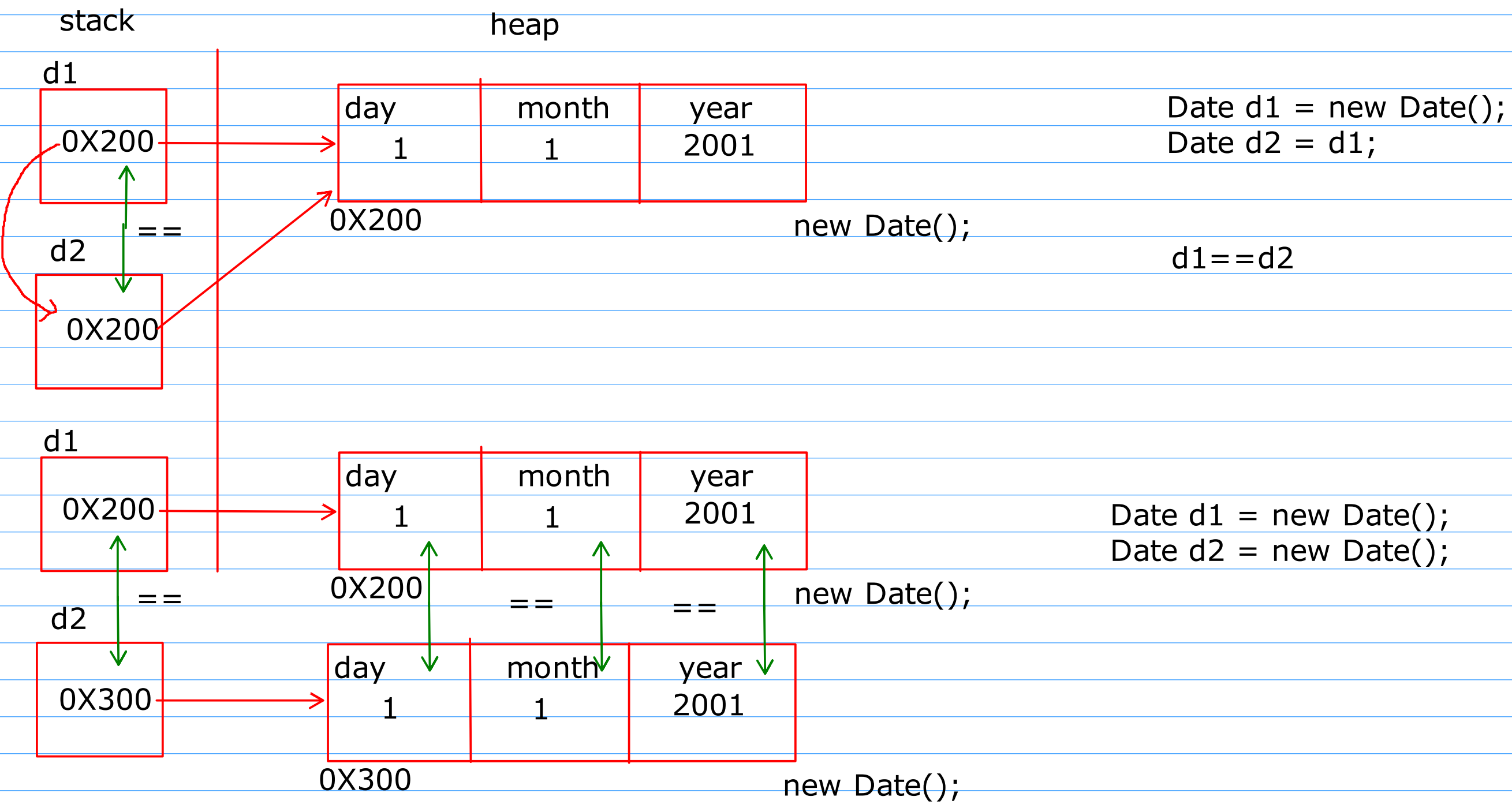
System

```
class Date{
  day,month,year
}

class Person{
  name,mobile
}

class Employee extends Person{
  id,salary;
  Date doj
  Date dot
  Date dob;
}
```

- # Final
- Variables
 - Fields
 - methods
 - class



Interface till java-7

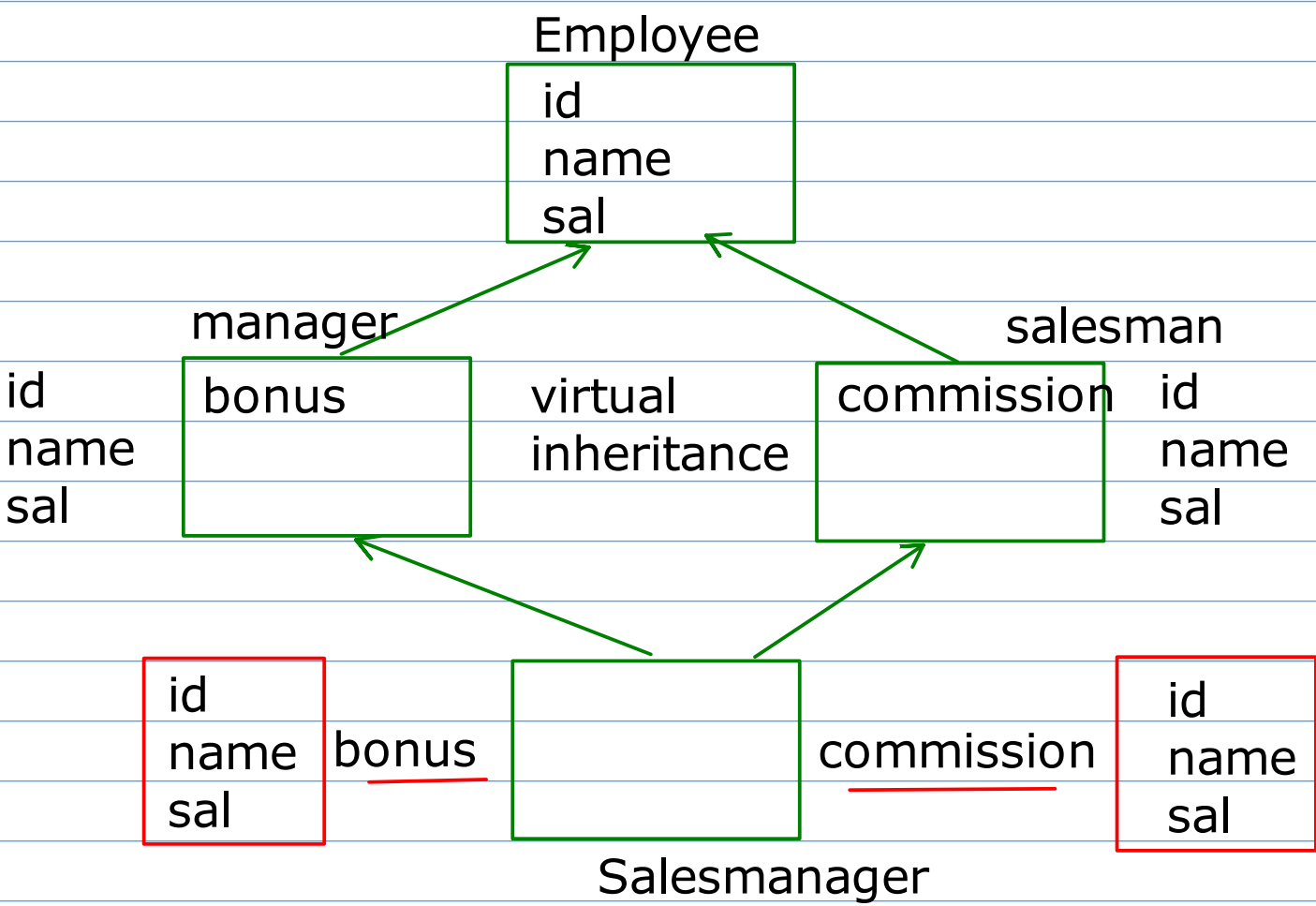
- It provides set of protocols/specification
- To group unrelated types together
- To avoid fragile base class problem

Servivce Provider

```
isimark{
safety1()
safety2()
safety3()
}
```

Servivce Consumer

Class	Abstract class	Interface
- It can have non static fields	- It can have non static fields	- It cannot have non static fields
- class can have only non abstract methods	- It can have abstract as well as non abstract methods	- It has only abstract methods
- It can have a ctor	- It can have a ctor	- It cannot have a ctor
- we can instantiate a class	- we cannot instantiate an abstract class	- we cannot instantiate an interface
	- Used to group related types together	- Used to group unrelated types together



Marker Interface

- An empty interface is a marker interface
- It is used to proved the permission or to add the extra meta data/information in your class

```
class Employee{
id
name
salary
```

```
Employee e1 = new Employee();
Sysout(e1); // id,name,sala
```

```
toString(){
return id,name,sal
}
}
```

JVM

