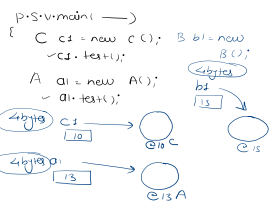


```

class A {
    p.v. test() ✓
}
class B extends A {
    p.v. test()
    // Super.test();
}
class C extends B {
    p.v. test() p.v. print()
}

```



[Super class Ref can hold sub-class object
if method invocation will happen of dynamic type]

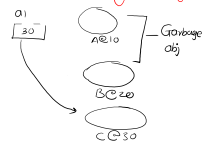
```

A a1 = new A();
a1.test();

a1 = new B();
a1.test();

a1 = new C();
a1.test();
a1.print(); ✗

```



```

class A {
    p.v. test()
    s.op.in(A);
}
class B extends A {
    p.v. test()
    s.op.in(B);
}

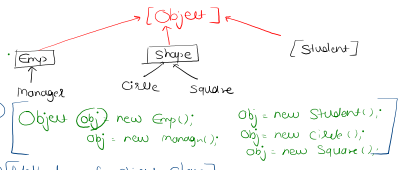
```

Method Overriding Child changes
behv of the parent

Stop Overriding
Parent ✗
Use behv → change

private - access
final - modification
change

[Cosmic Super class]



② [Methods of Object Class]

- p. String toString() → to display contents of an object
- p. boolean equals(Object obj) [==]
- p.v. finalize()
- p. int hashCode() → [hash value]
- wait() & notifyAll()
- notify()

[Garbage Collectⁿ Mechanism] Reachable

```

Date d1 = new Date();
Date d2 = new Date();
Date d3 = d1;

d1 = d2 = d3 = null;

```

UnReachable



```

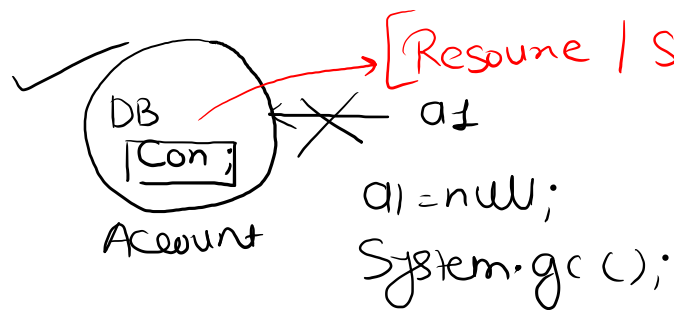
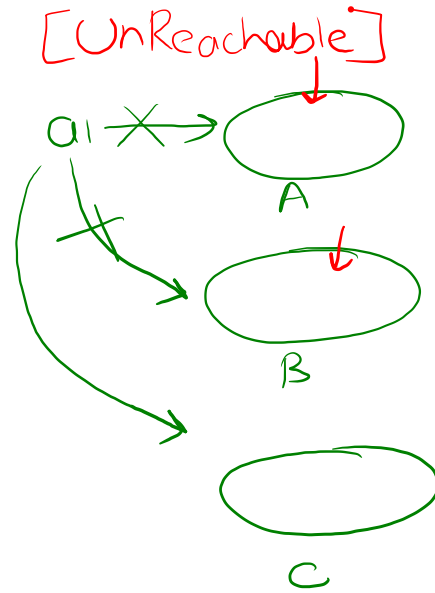
A d1 = new A();
  d1 = new B();
  d1 = new C();
    
```

} Ref Optimisation

[mark & sweep]

Request Jvm for Gc

→ System.gc();
 → Runtime.getRuntime().gc();



[Resource / Service] — free this Resource
 — Before garbage collect

Clean-up - activity

p.v. finalize()

— Release Resources

[Emp]

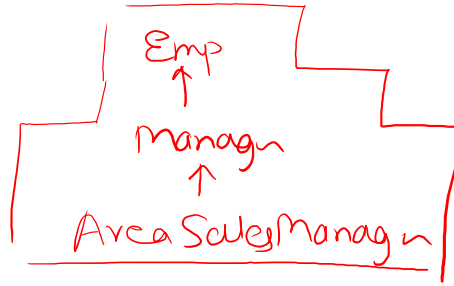
- no
- name
- sal
- calSal()
- print()

[manager]

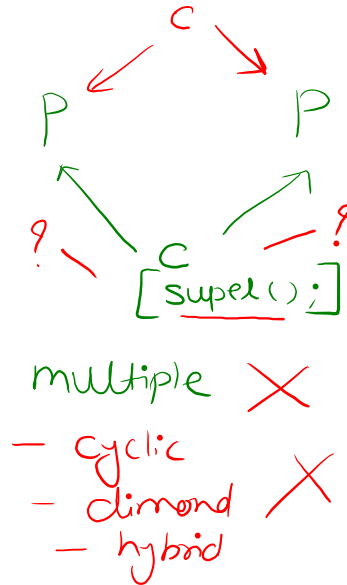
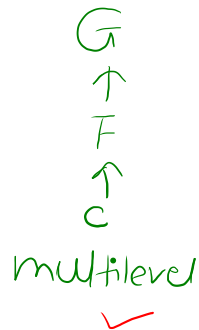
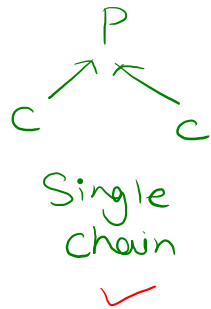
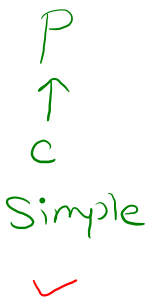
- incentives

[AreaSalesManager]

- petrolA
- foodA
- mobileA

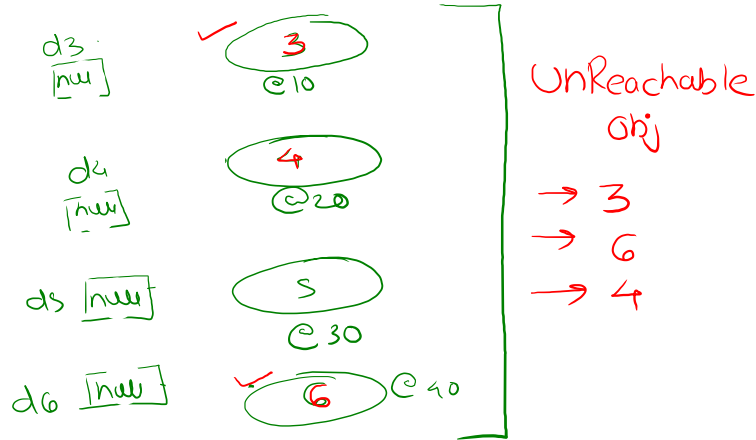


- to print GrossSal
- to print netSal
- to print Details of AreaSalesman



```
//garbage
collection
mechanism
DemoObject
d3=new
DemoObject(3);
DemoObject
d4=new
DemoObject(4);
DemoObject
d5=new
DemoObject(5);
DemoObject
d6=new
DemoObject(6);
d3=d4=d5=d6=null;
System.gc();
```

```
p.v.finalize()
{
    s.oph(val);
}
```



[Assignments]

- ① Apply Super class ref can hold sub class obj principle with downcasting in all Inheritance codes.
- ② Make a demo code for final-variable, method, class
- ③ Create a Demo Code for Object-class-methods
 - toString()
 - equals()
 - finalize()