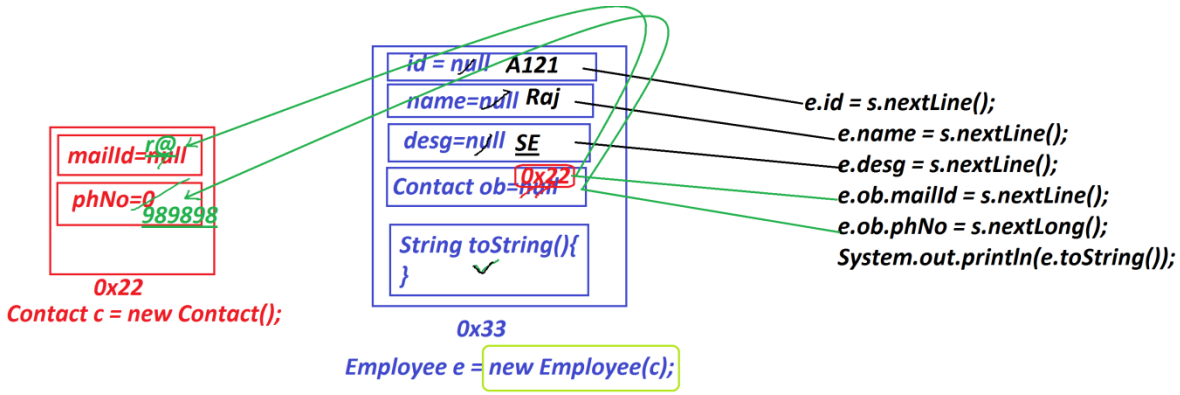
Dt : 29/9/2022

Diagram:



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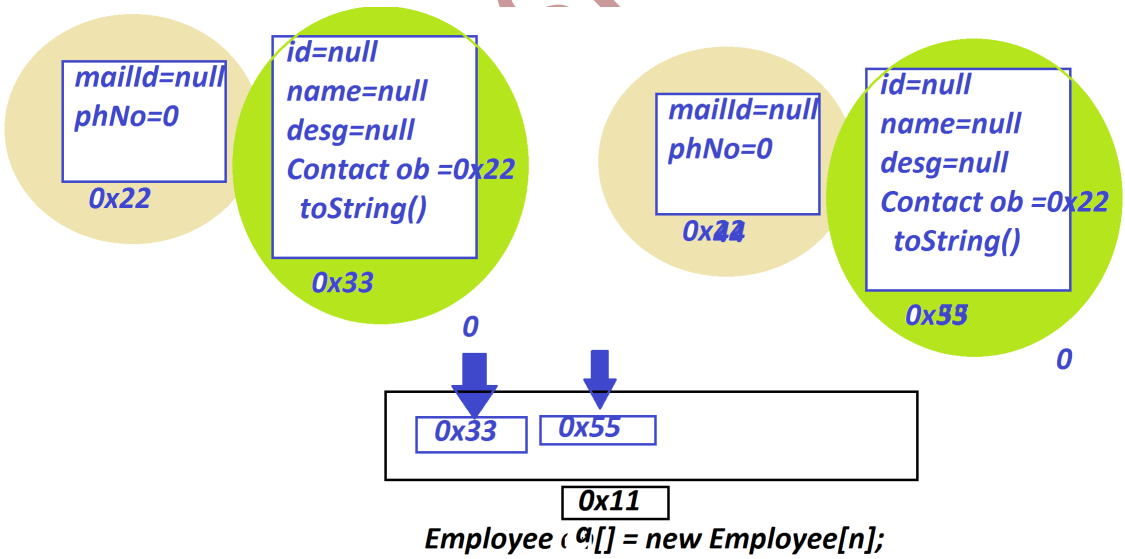
Assignment:(Solution)

Update above program by reading and display multiple employee details

using array.

Diagram:



Contact.java

```
package test;
```

```
public class Contact {
    public String mailId;
    public long phNo;
}
```

Employee.java

```
package test;
public class Employee {
    public String id,name,desg;
    public Contact ob;//Reference variable of Contact
    public Employee(Contact c) {
     ob = c;
    }
    public String toString() {
     return id+"\t"+name+"\t"+desg+"\t"+ob.mailId+"\t"+ob.phNo;
    }
}
```

DemoRef2.java(MainClass)

```
package maccess;

import test.*;

import java.util.*;

public class DemoRef2 {

        public static void main(String[] args) {

    Scanner s = new Scanner(System.in);

    System.out.println("Enter the number of employees:");

    int n = Integer.parseInt(s.nextLine());

    Employee a[] = new Employee[n];

    System.out.println("Enter "+n+" employee details:");

    for(int i=0;i<a.length;i++)

    {
```

```
            System.out.println("====Employee-"+(i+1)+" Details====");
            a[i] = new Employee(new Contact());
            System.out.println("Enter the id:");
            a[i].id = s.nextLine();
            System.out.println("Enter the name:");
            a[i].name = s.nextLine();
            System.out.println("Enter the desg:");
            a[i].desg = s.nextLine();
            System.out.println("Enter the MailId:");
            a[i].ob.mailId = s.nextLine();
            System.out.println("Enter the PhNo:");
            a[i].ob.phNo = Long.parseLong(s.nextLine());
        }//end of loop
        System.out.println("====Display Employee details===");
        for(Employee e : a)
        {
            System.out.println(e.toString());
        }//end of loop
        s.close();
        }
}
```

o/p:

```
Enter the number of employees:
3
```

Enter 3 employee details:

====Employee-1 Details====

Enter the id:

A121

Enter the name:

Raj

Enter the desg:

SE

Enter the MailId:

r@gmail.com

Enter the PhNo:

9898981234

====Employee-2 Details====

Enter the id:

A001

Enter the name:

Ram

Enter the desg:

TE

Enter the MailId:

rm@gmail.com

Enter the PhNo:

7878781234

====Employee-3 Details====

Enter the id:

A890

Enter the name:

Alx

Enter the desg:

ME

Enter the MailId:

a@gmailcom

Enter the PhNo:

6767671234

====Display Employee details===

A121 Raj SE r@gmail.com 9898981234

A001 Ram TE rm@gmail.com 7878781234

A890 Alx ME a@gmailcom 6767671234

==========

Assignment:

Update above application with the following classes:

=>Address(hNo,sName,city,pinCode)

=>Salary(bSal,totSal)

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Note:

=>References Concept is also known as "HAS-A" relation,because one object "HAS-A" reference of another object.

=>References concept is also known as "Object Inter Linking process".

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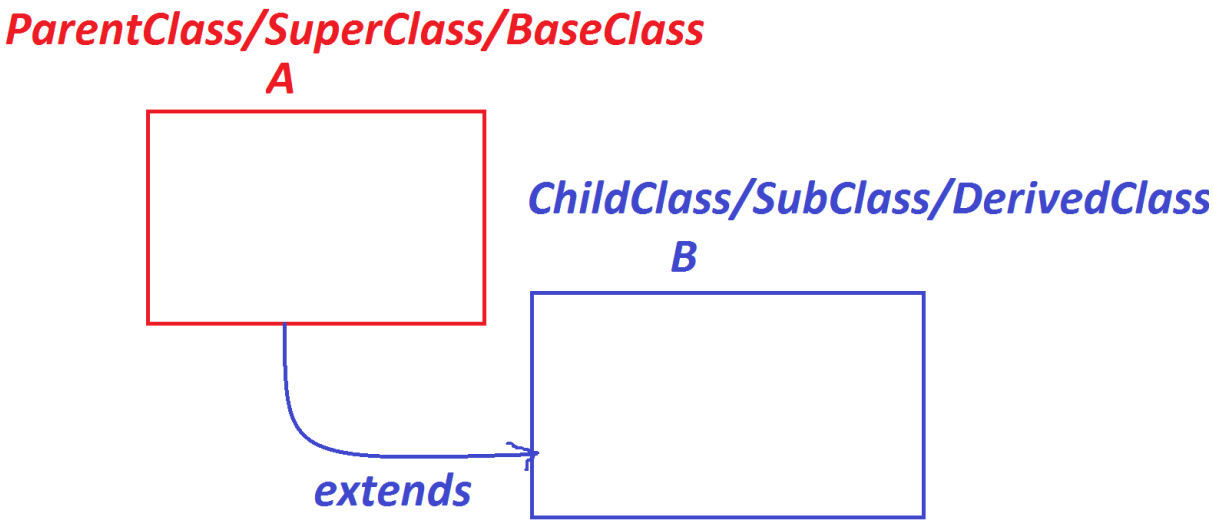
*imp

2.Inheritance in Java:

=>The process of extracting the features from Parent to child is known as Inheritance process.(General meaning)

=>The process of interlinking classes with "extends" keyword is known as Inheritance process.(Java Language)

Diagram:



syntax:

```
class A
{
 //PClass_body
}
```

class B extends A

{

//CClass_body

}

=>In Inheritance process we always create object for ChildClass.

B ob = new B();

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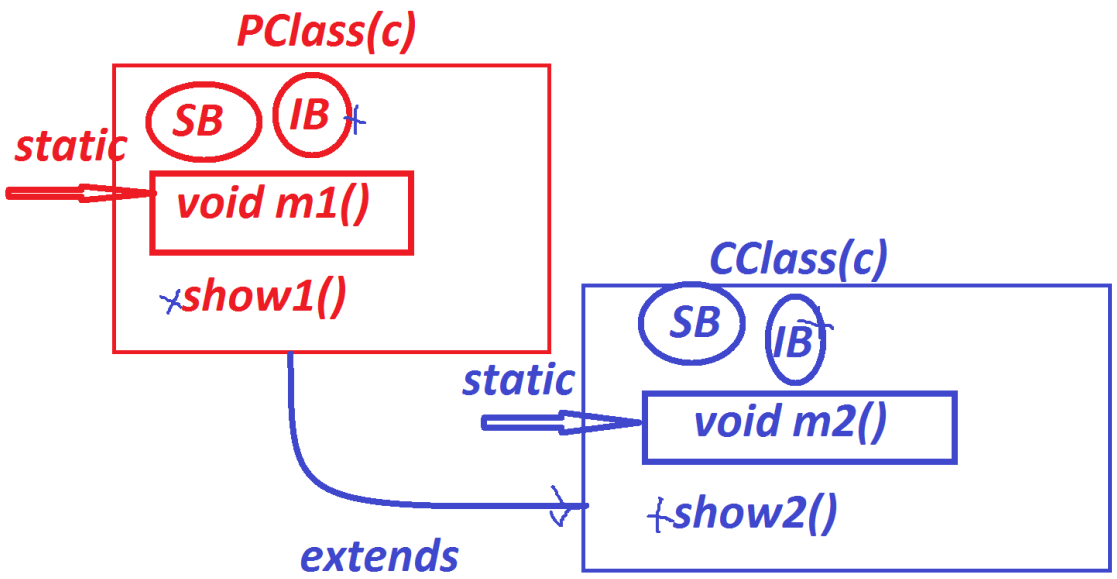
Case-1 : Blocks and Methods from the PClass/SuperClass

Diagram:



Ex:

PClass.java

```
package test;
public class PClass {
     static {
      System.out.println("**PClass Static Block**");
     }

     {
      System.out.println("**PClass Instance Block**");
     }

     public static void m1() {
      System.out.println("**PClass static method m1()**");
     }

     public void show1() {
      System.out.println("**PClass Instance method show1()**");
     }
}
```

CClass.java

```
package test;
public class CClass extends PClass{
       static {
        System.out.println("**CClass Static Block**");
        }

       {
           System.out.println("**CClass Instance Block**");
       }

       public static void m2() {
           System.out.println("**CClass static method m2()**");
       }
       public void show2() {
           System.out.println("**CClass Instance method
show2()**");
          }
}
```

DemoInheritance1.java(MainClass)

```
package maccess;
```

```
import test.*;
public class DemoInheritance1 {
     public static void main(String[] args) {
      CClass ob = new CClass();
      CClass.m1();
      CClass.m2();
      ob.show1();
      ob.show2();
     }
}
```

o/p:

PClass Static Block

CClass Static Block

PClass Instance Block

CClass Instance Block

PClass static method m1()

CClass static method m2()

PClass Instance method show1()

CClass Instance method show2()

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