

Class Assignment(29-10-2021)

```
class Customer{      //base class or super class
int id;
String name;
double balance;
static String bankName="state of india";
Bank bb;           //using object reference----Bank
//constructor
Customer(int id,String name,double balance,Bank bb){
this.id=id;
this.name=name;
this.balance=balance;
this.bb=bb;
}

void display()
{
System.out.println("Customer Id:"+id+"\n"+"Customer Name:"+name+"\n"+"Customer
Balance:"+balance+"\n"+"Customer Bank_Name:"+bankName+"\n"+"Bank Detail:"+bb);
bb.display();
}

//calculate simple interest
void calInterest()
{
double si=(balance*3*7.5)/100;
System.out.println();
}
```

```

        System.out.println("#####");
        System.out.println("Simple Interest="+si);
    }
}

```

//derived class

```

class ClassicCustomer extends Customer{
    double r;

```

```

    ClassicCustomer(int id,String name,double balance,Bank bb,double r){
        super(id,name,balance,bb);          //super to call base class constructor
        this.r=r;

```

```

    }

```

//display method to print data

```

    void display(){
        System.out.println("Customer Id:"+id+"\n"+"Customer Name:"+name+"\n"+"Customer
Balance:"+balance+"\n"+"Customer Bank_Name:"+bankName+"\n"+"Bank
Detail:"+bb+"\n"+"Interest Rate:"+r);
        bb.display();
    }

```

//simple interest calculate

```

        void callInterest(){
            double si = (balance*3*r)/100;

            System.out.println();

            System.out.println("#####");

            System.out.println("Simple Interest: "+si);

```

```

        //System.out.println();
    }

//main method

public static void main(String[] args){

    Bank b=new Bank(12345678,"Saving","Vijay Nagar","Delhi");

    Customer c=new Customer(102,"Prachi",1000,b);
    c.display();
    c.callInterest();
    System.out.println();
    System.out.println("#####");
    Customer c1=new ClassicCustomer(103,"Vishal",5000,b,7.5); //upcasting
    c1.display();
    c1.callInterest();
}
}

```

Another file >>>>>>> Bank.java

```

class Bank{
    long aNo;
    String atype;
    String branch;
    String city;
    Bank(long aNo,String atype,String branch,String city)
    { this.aNo=aNo;
      this.atype=atype;
      this.branch=branch;

```

```
this.city=city;
```

```
}
```

```
void display(){
```

```
System.out.println("\nCustomer Bank Detail:");
```

```
System.out.println("#####");
```

```
System.out.println("Account No:"+aNo+"\n"+"Account Type:"+atype+"\nBranch  
Name:"+branch+"\n"+"City Name:"+city);
```

```
}
```

```
}
```

Output:

```
osboxes ~ > Java > Practice javac ClassicCustomer.java
osboxes ~ > Java > Practice java ClassicCustomer
Customer Id:102
Customer Name:Prachi
Customer Balance:1000.0
Customer Bank_Name:state of india
Bank Detail:Bank@3b07d329

Customer Bank Detail:
#####
Account No:12345678
Account Type:Saving
Branch Name:Vijay Nagar
City Name:Delhi

#####
Simple Interest=225.0
```

```
#####  
Customer Id:103er 2021, 02:50:06  
Customer Name:Vishal1MB (47.40%)  
Customer Balance:5000.0)  
Customer Bank Name:state of india .com/forums/ (Right c)  
Bank Detail:Bank@3b07d329  
Interest Rate:7.5  
  
Customer Bank Detail:  
#####  
Account No:12345678  
Account Type:Saving  
Branch Name:Vijay Nagar  
City Name:Delhi  
  
#####  
Simple Interest: 1125.0
```