WEEK-05

Develop a Java program to create a class Bank that maintains two kinds of account for its customers, one called savings account and the other current account. The savings account provides compound interest and withdrawal facilities but no cheque book facility. The current account provides cheque book facility but no interest. Current account holders should also maintain a minimum balance and if the balance falls below this level, a service charge is imposed.

Create a class Account that stores customer name, account number and type of account. From this derive the classes Cur-acct and Sav-acct to make them more specific to their requirements. Include the necessary methods in order to achieve the following tasks. a) Accept deposit from customer and update the balance.

b) Display the balance.

c) Compute and deposit interest.

d) Permit withdrawal and update the balance.

Check for the minimum balance, impose penalty if necessary and update the balance import java.util.*; import java.lang.*; class account

```
{
        public String accname;    public double accno;       public int
acctype;       public double balance;     public void getdata(String
name,double no,int type,double bal)    {


                accname=name;
accno=no;              acctype=type;
        balance=bal;
        }
} class savings extends
account
```

```
{
        public void deposit(double amt)
        {
                balance=balance+amt;
                System.out.println(balance);
        }
        public void withdraw(double amt)
        {
                balance=balance-amt;
                System.out.println(balance);
        }
        public void interest(int time,int no)
        {
                double intr=balance*(1+6/no);
intr=Math.pow(intr,(time*no));
                System.out.println("Intertest calculated is"+intr);

                balance=balance+intr;
                System.out.println("The new balance is"+balance);
        }
} class current extends
account
{
        public void deposit(double amt)
        {
                balance=balance+amt;
                System.out.println(balance);
```

```
	}
	public void withdraw(double amt)
	{
		balance=balance-amt;
		System.out.println(balance);
check(balance);
	}
	public void check(double amt)
	{
		if(amt<10000)
		{
			balance =balance-500;
			System.out.println("Insufficient Balance"+balance);

		}
	}

}
class main {  public static void main(String
args[])
	{
		Scanner sc=new
Scanner(System.in);		int temp=1;
	while(temp==1)
		{
			double amt=0;
			System.out.println("Enter name");
```

```
                sc.next();
                String name=sc.nextLine();
System.out.println("Enter accno");                double
no=sc.nextDouble();
                System.out.println("Enter acctype\n0 for Savings\n1 for
Current");
                int type=sc.nextInt();
                do
                {
                        System.out.println("Enter balance");


                        amt=sc.nextDouble();
                }
                while(type==1 && amt<10000);
if(type==0)
                {
                        savings s=new savings();
                        s.getdata(name,no,type,amt);
System.out.println("\n1.Deposit\n2.Withdraw\n3.Interest");
                        int temp3=sc.nextInt();
        if(temp3==1)
                        {
                                System.out.println("Enter Amount");
                double amt1=sc.nextDouble();
s.deposit(amt1);
                        }
                        else if(temp3==2)
                        {
```

```
                    System.out.println("Enter Amount");
                double amt1=sc.nextDouble();
s.withdraw(amt1);
                    }
                    else if(temp3==3)
                    {
   System.out.println("Enter time period");      int tp=sc.nextInt();
                    System.out.println("Enter no of
times");                    int nof=sc.nextInt();
        s.interest(tp,nof);
                    }
                }
                else if(type==1)
                {
                    current c=new current();
                    c.getdata(name,no,type,amt);
System.out.println("\n1.Deposit\n2.Withdraw");                    int
temp3=sc.nextInt();                    if(temp3==1)
                    {
                    System.out.println("Enter Amount");
                double amt1=sc.nextDouble();
c.deposit(amt1);
                    }
                    else if(temp3==2)
                    {
```

```
                                System.out.println("Enter Amount");
                        double amt1=sc.nextDouble();
c.withdraw(amt1);

                                }


                        }
                        System.out.println("To continue 1 else 0");
temp=sc.nextInt();
                }
        }
}
```

OUTPUT

```
Enter name
Yashasvini
Enter accno
252
Enter acctype
0 for Savings
1 for Current
0
Enter balance
10000

1.Deposit
2.Withdraw
3.Interest
1
Enter Amount
20000
30000.0
To continue 1 else 0
1
Enter name
Vishal
Enter accno
243
Enter acctype
0 for Savings
1 for Current
0
Enter balance
50000

1.Deposit
2.Withdraw
3.Interest
2
Enter Amount
20000
30000.0
```

```
To continue 1 else 0
1
Enter name
Vandan
Enter accno
236
Enter acctype
0 for Savings
1 for Current
0
Enter balance
150000

1.Deposit
2.Withdraw
3.Interest
3
Enter time period
3
Enter no of times
2
Intertest calculated is4.6656E
The new balance is4.6656E34
To continue 1 else 0
1
Enter name
Vibha
Enter accno
255
Enter acctype
0 for Savings
1 for Current
1
Enter balance
200000

1.Deposit
2.Withdraw
1
Enter Amount
20000
220000.0
To continue 1 else 0
1
```

```
Enter name
Vaishnavi
Enter accno
672
Enter acctype
0 for Savings
1 for Current
1
Enter balance
1000000

1.Deposit
2.Withdraw
2
Enter Amount
20000
980000.0
To continue 1 else 0
0
```