WEEK - 5

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

```java
import java.util.*;
class Account{
String name;
int acc_no;
double balance;
void get_info(){
System.out.println("Enter name\n");
Scanner sc=new Scanner(System.in);
name=sc.next();
System.out.println("Enter Account number\n");
acc_no=sc.nextInt();
System.out.println("Enter balance\n");
balance=sc.nextDouble();
if(balance<5000.0){
System.out.println("Balance should be greater than 5000\n");
}
}
void deposit(){
System.out.println("Enter the amount to be deposited");
Scanner vb=new Scanner(System.in);
double add=vb.nextDouble();
balance=balance+add;
}
void display(){
System.out.println("Name "+name);
System.out.println("Account Number  "+acc_no);
System.out.println("Updated Balance=  "+balance);
}
void withdrawal(){
```

```java
System.out.println("Enter the amount to be withdrawed");
Scanner va=new Scanner(System.in);
double amt=va.nextDouble();
balance=balance-amt;
}
}
class Curr_acct extends Account{
double min=5000.0;
double pen=500.0;
void check(){
if(balance<=min){
System.out.println("Low Balance");
balance=balance-pen;
}
}
}
class Sav_acct extends Account{
public void interest(){
balance=balance+(5*balance/100);
System.out.println("Updated Balance="+balance);
}
}
class bank{
public static void main(String args[]){
System.out.println("1.CURRENT ACCOUNT\t2.SAVINGS ACCOUNT\t3.EXIT\n");
System.out.println("Enter your choice");
Scanner sp=new Scanner(System.in);
Curr_acct c1=new Curr_acct();
Sav_acct s1=new Sav_acct();
boolean a=true;
System.out.println("Press c for current account\n");
System.out.println("Press s for savings account\n");
String l=sp.next();
if(l.equalsIgnoreCase("c")){
c1.get_info();
c1.check();
while(a){
System.out.println("1.DISPALY\t2.DEPOSIT\t3.WITHDRAW\t4.EXIT\n");
System.out.println("Enter your choice");
int choi=sp.nextInt();
switch(choi){
case 1:c1.display();
break;
case 2:c1.deposit();
```

```
break;
case 3:c1.withdrawal();
break;
case 4:System.exit(0);
break;
default:System.out.println("Invalid Choice");
}}}
else if(I.equalsIgnoreCase("s")){
s1.get_info();
while(a){
System.out.println("1.DISPLAY\t2.DEPOSIT\t3.WITHDRAW\t4.INTEREST\t5.EXIT\n");
System.out.println("Enter your choice");
int cho=sp.nextInt();
switch(cho){
case 1:s1.display();
break;
case 2:s1.deposit();
break;
case 3:s1.withdrawal();
break;
case 4:s1.interest();
break;
case 5:System.exit(0);
break;
default:System.out.println("Invalid choice\n");
}}}
else{
System.out.println("Invalid character");
}
}}
```

```
1.CURRENT ACCOUNT        2.SAVINGS ACCOUNT        3.EXIT

Enter your choice
Press c for current account

Press s for savings account

c
Enter name

Vedang
Enter Account number

707
Enter balance

2500
Balance should be greater than 5000

Low Balance
1.DISPALY        2.DEPOSIT        3.WITHDRAW        4.EXIT

Enter your choice
2
Enter the amount to be deposited
4000
1.DISPALY        2.DEPOSIT        3.WITHDRAW        4.EXIT

Enter your choice
1
Name Vedang
Account Number   707
Updated Balance=  6000.0
1.DISPALY        2.DEPOSIT        3.WITHDRAW        4.EXIT

Enter your choice
3
Enter the amount to be withdrawed
500
1.DISPALY        2.DEPOSIT        3.WITHDRAW        4.EXIT

Enter your choice
1
Name Vedang
Account Number   707
Updated Balance=  5500.0
1.DISPALY        2.DEPOSIT        3.WITHDRAW        4.EXIT

Enter your choice
4

C:\Users\Admin\Desktop\1BM21CS239>
```

```
1.CURRENT ACCOUNT        2.SAVINGS ACCOUNT        3.EXIT

Enter your choice
Press c for current account

Press s for savings account

s
Enter name

Vedang
Enter Account number

777
Enter balance

4000
Balance should be greater than 5000

1.DISPLAY        2.DEPOSIT        3.WITHDRAW        4.INTEREST        5.EXIT

Enter your choice
2
Enter the amount to be deposited
1200
1.DISPLAY        2.DEPOSIT        3.WITHDRAW        4.INTEREST        5.EXIT

Enter your choice
1
Name Vedang
Account Number  777
Updated Balance=  5200.0
1.DISPLAY        2.DEPOSIT        3.WITHDRAW        4.INTEREST        5.EXIT

Enter your choice
4
Updated Balance=5460.0
1.DISPLAY        2.DEPOSIT        3.WITHDRAW        4.INTEREST        5.EXIT

Enter your choice
3
Enter the amount to be withdrawed
500
1.DISPLAY        2.DEPOSIT        3.WITHDRAW        4.INTEREST        5.EXIT

Enter your choice
1
Name Vedang
Account Number  777
Updated Balance=  4960.0
1.DISPLAY        2.DEPOSIT        3.WITHDRAW        4.INTEREST        5.EXIT

Enter your choice
4
Updated Balance=5208.0
1.DISPLAY        2.DEPOSIT        3.WITHDRAW        4.INTEREST        5.EXIT

Enter your choice
5
```