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.*;
class account{
    String ac_name;
    int ac_no;
    account(String s,int ac){
        ac_name=s;ac_no=ac;
    }
}
class sav_act extends account{
    Scanner sc=new Scanner(System.in);
    double sum=0;
    sav_act(String s,int ac){
        super(s,ac);
    }
    void deposite(){
        System.out.println("ENTER AMOUNT");
        double am=sc.nextInt();
        sum+=am;
        return;
    }
    void balance(){
        System.out.println("BALANCE AMOUNT IS "+sum);
        return;
    }
    double interest(){
        System.out.println("ENTER NO OF YEAR");
        double yr=sc.nextInt();
        return sum*0.08*yr;
    }
    void withdraw(){
        System.out.println("ENTER THE AMOUNT");
        double am=sc.nextInt();
        sum-=am;
        return;
    }
}
class cur_act extends account{
    cur_act(String s,int ac){
        super(s,ac);
    }
    Scanner sc=new Scanner(System.in);
    double sum1=0;
    void deposite(){
        System.out.println("ENTER AMOUNT");
        double am=sc.nextInt();
        sum1+=am;
        return;
```

```
    }
    void balance(){
        System.out.println("BALANCE AMOUNT IS "+sum1);
        return;
    }
    void withdraw(){
        System.out.println("ENTER THE AMOUNT");
        double am=sc.nextInt();
        sum1-=am;
        if(sum1<=100){
            sum1-=10;
            System.out.println("FINE AMOUNT DEDUCTED = 10/- ");
        }
        return;
    }

}
class bank{
    public static void main(String args[]){

        Scanner sc=new Scanner(System.in);
        int flag=1;

        System.out.println("ENTER NAME AND ACCOUNT NUMBER");
        String ac_name=sc.next();
        int ac_no=sc.nextInt();
        sav_act sa=new sav_act(ac_name,ac_no);
        cur_act cu=new cur_act(ac_name,ac_no);

        while(flag==1){
            System.out.println("1.DEPOSIT AMOUNT"+"\n"+"2.DISPLAY
BALANCE"+"\n"+"3.SHOW
INTEREST"+"\n"+"4.WITHDRAW"+"\n"+"5.DETAILS"+"\n"+"6.exit");
            int ch=sc.nextInt();

            switch(ch){
                case 1:
                    System.out.println("1.DEPOSITE AMOUNT IN SAVING ACCOUNT
2.DEPOSITE AMOUNT IN CURRENT ACCOUNT");
                    int x=sc.nextInt();
                    if(x==1) sa.deposite();
                    if(x==2) cu.deposite();
                    break;
                case 2:
                    System.out.println("1.BALANCE AMOUNT IN SAVING ACCOUNT
2.BALANCE AMOUNT IN CURRENT ACCOUNT");
                    int y=sc.nextInt();
                    if(y==1) sa.balance();
                    if(y==2) cu.balance();
                    break;
                case 3:
                    System.out.println("INTEREST AMOUNT IS
"+sa.interest());
                    break;
                case 4:
                    System.out.println("1.WITHDRAW USING CASH 2.WITHDRAW
USING CHEQUE");
                    int z=sc.nextInt();
                    if(z==1) sa.withdraw();
                    if(z==2) cu.withdraw();
                    break;
```

```
                case 5:
                    System.out.println("ACCOUNT DETAILS ARE "+sa.ac_name+"
and "+sa.ac_no);
                    break;
                case 6:
                    flag=0;
                    break;
                default: System.out.println("INVALID INPUTS");
            }
        }
    }
}
```

Output

```
ENTER NAME AND ACCOUNT NUMBER
Rahul
20120281
1.DEPOSIT AMOUNT
2.DISPLAY BALANCE
3.SHOW INTEREST
4.WITHDRAW
5.DETAILS
6.exit
1
1.DEPOSITE AMOUNT IN SAVING ACCOUNT 2.DEPOSITE AMOUNT IN CURRENT ACCOUNT
1
ENTER AMOUNT
300
1.DEPOSIT AMOUNT
2.DISPLAY BALANCE
3.SHOW INTEREST
4.WITHDRAW
5.DETAILS
6.exit
1
1.DEPOSITE AMOUNT IN SAVING ACCOUNT 2.DEPOSITE AMOUNT IN CURRENT ACCOUNT
2
ENTER AMOUNT
400
```

```
1.DEPOSIT AMOUNT
2.DISPLAY BALANCE
3.SHOW INTEREST
4.WITHDRAW
5.DETAILS
6.exit
2
1.BALANCE AMOUNT IN SAVING ACCOUNT 2.BALANCE AMOUNT IN CURRENT ACCOUNT
1
BALANCE AMOUNT IS 300.0
1.DEPOSIT AMOUNT
2.DISPLAY BALANCE
3.SHOW INTEREST
4.WITHDRAW
5.DETAILS
6.exit
2
1.BALANCE AMOUNT IN SAVING ACCOUNT 2.BALANCE AMOUNT IN CURRENT ACCOUNT
2
BALANCE AMOUNT IS 400.0
1.DEPOSIT AMOUNT
2.DISPLAY BALANCE
3.SHOW INTEREST
4.WITHDRAW
5.DETAILS
6.exit
3
```

```
ENTER NO OF YEAR
5
INTEREST AMOUNT IS 120.0
1.DEPOSIT AMOUNT
2.DISPLAY BALANCE
3.SHOW INTEREST
4.WITHDRAW
5.DETAILS
6.exit
4
1.WITHDRAW USING CASH 2.WITHDRAW USING CHEQUE
1
ENTER THE AMOUNT
200
1.DEPOSIT AMOUNT
2.DISPLAY BALANCE
3.SHOW INTEREST
4.WITHDRAW
5.DETAILS
6.exit
2
1.BALANCE AMOUNT IN SAVING ACCOUNT 2.BALANCE AMOUNT IN CURRENT ACCOUNT
1
BALANCE AMOUNT IS 100.0
```

```
1.DEPOSIT AMOUNT
2.DISPLAY BALANCE
3.SHOW INTEREST
4.WITHDRAW
5.DETAILS
6.exit
4
1.WITHDRAW USING CASH 2.WITHDRAW USING CHEQUE
2
ENTER THE AMOUNT
350
FINE AMOUNT DEDUCTED = 10/-
1.DEPOSIT AMOUNT
2.DISPLAY BALANCE
3.SHOW INTEREST
4.WITHDRAW
5.DETAILS
6.exit
5
ACCOUNT DETAILS ARE Rahul and 20120281
1.DEPOSIT AMOUNT
2.DISPLAY BALANCE
3.SHOW INTEREST
4.WITHDRAW
5.DETAILS
6.exit
```