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import java.util.Scanner;

class Account
{
    String name,acc_no;
    int type;
    double bal;
}

class Sav_acct extends Account
{
    double ci,dep,wit,time,rate,min;
    void setData(String n, String an, int t,double b)
    {
        name=n;
        acc_no=an;
        type=t;
        bal=b;
    }
    void dep_acc(double d)
    {
        dep=d;
        bal=bal+dep;
    }
    void display()
    {
        System.out.println("The total balance of the customer is: "+bal);
    }
    void interest(float Time,float r)
    {
        time=Time;
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rate=r;
ci=bal;
bal=bal*(Math.pow((1+(rate*0.01)),time));
ci=bal-ci;
System.out.println("Compound interest: "+ci);
System.out.println("Balance after depositing interest: "+bal);
}
void withdraw(double w)
{
    Scanner sc=new Scanner(System.in);
    double m;
    wit=w;
    if(wit>bal)
        System.out.println("Your withdrawal amount exceeds your balance amount");
    else
    {
        bal=bal-wit;
        System.out.println("Your balance after withdrawal is: "+bal);
        System.out.println("Enter the minimum balance allowed");
        m=sc.nextDouble();
        this.minimum(m);
    }
}
void minimum(double m)
{
    min=m;
    if(bal<min){
        System.out.println("Your balance is less than the minimum amount");
        System.out.println("Your total balance is: "+bal);}
}

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    }
}
class Curr_acct extends Account
{
    double dep,wit,min,penalty;
    Boolean cheque;
    void setData(String n, String an, int t,double b)
    {
        name=n;
        acc_no=an;
        type=t;
        bal=b;
    }
    void dep_acc(double d)
    {
        dep=d;
        bal=bal+dep;
    }
    void display()
    {
        System.out.println("The total balance of the customer is: "+bal);
    }
    void withdraw(double w)
    {
        Scanner sc=new Scanner(System.in);
        double m;
        float p;
        wit=w;
        if(wit>bal)

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        System.out.println("Your withdrawal amount exceeds your balance amount");
    else
    {
        bal=bal-wit;

        System.out.println("Your balance after withdrawal is: "+bal);

        System.out.println("Enter the minimum balance allowed and the service charge percentage");
        m=sc.nextDouble();
        p=sc.nextFloat();
        this.minimum(m,p);
    }
}

void minimum(double m,double p)
{
    penalty=p;
    min=m;
    if(bal<min)
    {
        System.out.println("Your balance is less than the minimum amount");
        bal=bal-((min-bal)*penalty*0.01);
        System.out.println("Your total balance is: "+bal);
    }
}

}

class AccountMain
{
    public static void main(String args[])
    {
        int s_no_cust,c_no_cust,i,che;
        String n,an;
    }
}

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double d,b,w;
float Time,r;
Scanner sc=new Scanner(System.in);
System.out.println("Enter the number of customers with savings account");
s_no_cust=sc.nextInt();
System.out.println("Enter the number of customers with current account");
c_no_cust=sc.nextInt();
Sav_acct obs[]=new Sav_acct[s_no_cust];
Curr_acct obc[]=new Curr_acct[c_no_cust];
if(s_no_cust>0)
System.out.println("---Savings account---");
for(i=0;i<s_no_cust;i++)
{
    obs[i]=new Sav_acct();
    System.out.println("Enter "+(i+1)+" customer's name and account number and current balance");
    n=sc.next();
    an=sc.next();
    b=sc.nextDouble();
    obs[i].setData(n,an,1,b);
    System.out.println("Enter the deposit amount");
    d=sc.nextDouble();
    obs[i].dep_acc(d);
    obs[i].display();
    System.out.println("Enter the time period and the rate of interest");
    Time=sc.nextFloat();
    r=sc.nextFloat();
    obs[i].interest(Time,r);
    System.out.println("Enter the withdrawal amount");
    w=sc.nextDouble();
}
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        obs[i].withdraw(w);
    }
    if(c_no_cust>0)
    System.out.println("---Current account---");
    for(i=0;i<c_no_cust;i++)
    {
        obc[i]=new Curr_acct();
        System.out.println("Enter "+(i+1)+" customer's name and account number and current balance");
        n=sc.next();
        an=sc.next();
        b=sc.nextDouble();
        obc[i].setData(n,an,2,b);
        System.out.println("Enter 1 if the customer has cheque book else press 0");
        che=sc.nextInt();
        if(che==1)
            obc[i].cheque=true;
        else
            obc[i].cheque=false;
        System.out.println("Enter the deposit amount");
        d=sc.nextDouble();
        obc[i].dep_acc(d);
        obc[i].display();
        System.out.println("Enter the withdrawal amount");
        w=sc.nextDouble();
        obc[i].withdraw(w);
    }
}
}
```

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C:\Users\Adithi\Desktop\java_prgs>java AccountMain
Enter the number of customers with savings account
1
Enter the number of customers with current account
1
---Savings account---
Enter 1 customer's name and account number and current balance
Aditi
59394903
1000
Enter the deposit amount
200
The total balance of the customer is: 1200.0
Enter the time period and the rate of interest
1
3
Compound interest: 36.0
Balance after depositing interest: 1236.0
Enter the withdrawal amount
500
Your balance after withdrawal is: 736.0
Enter the minimum balance allowed
500
---Current account---
Enter 1 customer's name and account number and current balance
Anu
64689900
2000
Enter 1 if the customer has cheque book else press 0
1
Enter the deposit amount
100
The total balance of the customer is: 2100.0
Enter the withdrawal amount
1500
Your balance after withdrawal is: 600.0
Enter the minimum balance allowed and the service charge percentage
700
1
Your balance is less than the minimum amount
Your total balance is: 599.0
C:\Users\Adithi\Desktop\java_prgs>
```

