

```

2. import java.util.Scanner;
class Account
{
    String name, acc-no;
    int type; double bal;
}
class Sav-acc extends Account
{
    double ci, bal, dep, with, 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, double b)
    {
        dep = d;
        bal = b;
        bal = bal + dep;
    }
    void display ()
    {
        System.out.println("The total balance of the customer is: " + bal);
    }
    void interest (float time, float r)
    {
        time = time;
        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 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);
    }
}

class curr-acct extends Account
{
    double bal, 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 depacc(double d, double p)

```

```
dep = d;  
bal = b;  
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)
```

```
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 minimum balance allowed and  
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;
```

```
        double d, b, w, m;
```

```
        float Time, r, p;
```

```
        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");
```

```
                n = sc.next();
```

```
                an = sc.next(); b = sc.nextDouble();
```

```
                obs[i].setData(n, an, b);
```

```
                System.out.println("Enter the current balance  
and deposit amount");
```

```
                b = sc.nextDouble();
```

```
                d = sc.nextDouble();
```

```
                obs[i].dep_acc(d);
```

```
                obs[i].display();
```

```
                System.out.println("Enter the time period  
and rate of interest");
```

```

Time = sc.nextFloat();
r = sc.nextFloat();
obj[i].interest(Time, r);
System.out.println("Enter the withdrawal
amount");
w = sc.nextDouble();
obj[i].withdraw(w);
System.out.println("Enter minimum balance
allowed");
m = sc.nextDouble();
obj[i].minimum(m);
}

if (c.no cust > 0)
System.out.println("--- Current account ---");
for (i = 0; i < c.no cust; i++)
{
obj[i] = new Cur-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();
obj[i].setData(n, an, 2, b);
System.out.println("Enter 1 if the customer has a
cheque book else press 0");
che = sc.nextInt();
if (che == 1)
obj[i].cheque = false;
System.out.println("Enter the deposit amount");
d = sc.nextDouble();
obj[i].dep-acc(d);
obj[i].display();
System.out.println("Enter withdrawal amount");
w = sc.nextDouble();
obj[i].withdraw(w); } } }

```