```java
import java.util.Scanner;
class Account {
String cust_name, type;
 long account_num;
  double balance;
 boolean check_book;
 static double min = 500.0, sercharge = 100;
 Scanner in = new Scanner(System.in);
  void getdata() {
 System.out.println("Enter the name of the Customer.");
  cust_name = in.nextLine();
 System.out.println("Enter the account number:");
 account_num = in.nextLong();
 System.out.println("Enter balance amount:");
 balance = in.nextDouble();
 }
 void display() {
 System.out.println("Customer name:" + cust_name);
 System.out.println("Account number:" + account_num);
 System.out.println("Current Balance:" + balance);
  }
 }
class Savings extends Account {
 double interest, rate = 0.03, withdraw_amt;
 int n, time;
 Scanner in = new Scanner(system.in);
 void calc_interest() {
 System.out.println("Enter the time in years.");
 time = in.nextInt();
 System.out.println("Enter number of items the interestes
to be compounded:");
 n = in.nextInt();
```

```java
        interest = balance * (Math.pow ((1+ (rate/n)), (time*n)));
        balance += interest;

        System.out.println (" The interest amount is " + interest);
        System.out.println ("Balance after calculating interest is:
                                                + balance);
    }
    void withdrawal(){

    System.out.println ("Enter amount to be withdrawn.");
    withdraw_amt = in.nextDouble();

        if (balance > withdraw_amt)
            balance = withdraw_amt;
    else
    System.out.println (" the balance amount is insufficient");
    System.out.println (" the total balance after withdrawal is
                                            : " + balance );
    }
    void penalty(){
    if (balance < min){
        balance = balance - Sercharge;

    System.out.println (" the balance amount after the penalty :"+
        balance);

    }
    else
        System.out.println (" No penalty is imposed.");
    }
}
    class BankMain{
    public static void main (String args[]){

    int type;
    Savings s = new Savings();
    current c = new Current();
    Scanner ss = new Scanner (system.in);
    System.out.println (" enter the type of account : ");
    System.out.println (" Enter 1 for Savings and 2 for Current")
    type = ss.nextInt();
```

```java
if ( type == 1) {
int withdrw = 0;
 s. getdata ();
 s. display ();
 s. calc-interest ();
System.out.println ("Would you like to withdraw money from
                     your account ? ");
System.out.println ("Enter 1 if yes and 2 if no: ");
withdrw = sh.nextInt ();
if ( withdraw() == 1) {
   s. withdrawal ();
}
s. penalty ();
}
if (type ==2) {
int depositt = 0;
c. getdata ();
c. display ();
System.out. println (" would you like to deposit money to
                     your account ? ");
System.out. println (" Enter 1 if yes and 2 if no: ");
depositt = ss. nextInt ();
  if (depositt == 1) {
     c. getdeposit ();
  }
  c. penalty ();
 }
 }
 }
```

```
Command Prompt

C:\Users\staga\Desktop>javac BankMain.java

C:\Users\staga\Desktop>java BankMain
Enter the type of account:
Enter 1 for Savings and 2 for Current:
1
Enter the name of the customer:
abc
Enter the account number:
12345
Enter the balance amount:
2500
Customer name:abc
Account number:12345
Current Balance:2500.0
Enter the time in years:
2
Enter the number of times the interest is to be compunded :
1
The interestamount is:2652.25
The balanceafter calculating the interest is:5152.25
Would you like to withdraw money from your account?
Enter 1 if yes and 2 if no:
1
Enter the amount to be withdrawn:
500
The total balance after withdrawal is:4652.25
No penalty is imposed.

C:\Users\staga\Desktop>
```

```
Would you like to withdraw money from your account?
Enter 1 if yes and 2 if no:
1
Enter the amount to be withdrawn:
500
The total balance after withdrawal is:4652.25
No penalty is imposed.

C:\Users\staga\Desktop>java BankMain
Enter the type of account:
Enter 1 for Savings and 2 for Current:
2
Enter the name of the customer:
xyz
Enter the account number:
6789
Enter the balance amount:
3000
Customer name:xyz
Account number:6789
Current Balance:3000.0
Would you like to deposit money to your account?
Enter 1 if yes and 2 if no:
1
Enter the amount to be deposited:
2000
The total balance after deposition is:5000.0
No penalty is imposed.

C:\Users\staga\Desktop>
```