```java
import java.util.Scanner;
abstract class Account
{
    String cust_name;
    long acc_no;
    String acc_type;
    double balance;
    double min_bal = 1000.0;
Account (String cust_name, long acc_no,String acc_type,double balance)
{
    this.cust_name=cust_name;
    this.acc_no=acc_no;
    this.acc_type=acc_type;
    this.balance=balance;
}
abstract void deposit(double amount);
abstract void display();
abstract void withdrawal(double amount);
}

class Curr_acct extends Account
{
    double penalty=100.0;
    Curr_acct(String cust_name, long acc_no,String acc_type,double balance)
    {
        super(cust_name,acc_no,acc_type,balance);
        System.out.println("Name of the customer: "+cust_name);
        System.out.println("Account Number : "+acc_no);
        System.out.println("Account type: "+acc_type);
        System.out.println("Balance: "+balance);
    }

    void deposit(double amount)
    {
        this.balance  = this.balance+amount;
    }


    void withdrawal(double amount)
    {
```

```
38
39      void withdrawal(double amount)
40      {
41          this.balance  = this.balance-amount;
42          imposepenalty();
43          System.out.println("The current balance is "+balance);
44      }
45      void imposepenalty()
46      {
47          if(this.balance<min_bal)
48          {
49              this.balance=this.balance-penalty;
50              System.out.println("The balance amount is insufficient, the penalty imposed = 100Rs");
51          }
52      }
53      void display()
54      {
55          System.out.println("Balance is: " + this.balance);
56      }
57  }
58  class Sav_acct extends Account
59  {
60      Sav_acct(String cust_name, long acc_no,String acc_type,double balance)
61      {
62          super(cust_name,acc_no,acc_type,balance);
63          System.out.println("Name of the customer: "+cust_name);
64          System.out.println("Account Number : "+acc_no);
65          System.out.println("Account type: "+acc_type);
66          System.out.println("Balance: "+balance);
67      }
68      void deposit(double amount)
69      {
70          this.balance = this.balance+amount;
71          interest();
72      }
73      void interest()
74      {
75         int rate=10,time=1;
76         float ci=(float)(this.balance*Math.pow(1+rate/100.0,time)-this.balance);
77         System.out.println("The interest amount added to balance is "+ci);
```

```
78          this.balance=this.balance+ci;
79      }
80
81      void withdrawal(double amount)
82      {
83          this.balance=this.balance-amount;
84          System.out.println("The current balance is "+balance);
85      }
86      void display()
87      {
88          System.out.println("Balance is: " +this.balance);
89      }
90  }
91  class AccountMain
92  {
        Run | Debug
93      public static void main(String[] args)
94      {
95          Scanner xx = new Scanner(System.in);
96          Double amount;
97          int flag = 0;
98          while( flag == 0)
99          {
100             System.out.println("Enter the type of Account:\n1:Current account\n2:Savings account");
101             int choice=xx.nextInt();
102             switch(choice)
103             {
104                 case 1:System.out.println("\nCurrent account:\n");
105                 System.out.println("Enter the name of account holder");
106                 String f=xx.next();
107                 System.out.println("Enter the account number");
108                 long g=xx.nextLong();
109                 System.out.println("Enter the balance amount");
110                 double h=xx.nextDouble();
111
112                 Curr_acct c = new Curr_acct(f,g,"current",h);
113                 int flag1 = 0;
114                 while( flag1 == 0)
115                 {
```

```
116                 System.out.println("Enter your choice\n1:Deposit amount\n2:DisplayBalance\n3:Withdraw");
117                 int choice1= xx.nextInt();
118                 switch (choice1)
119                 {
120                     case 1:
121                     System.out.println("Enter amount to be deposited:");
122                     amount = xx.nextDouble();
123                     c.deposit(amount);
124                     break;
125 
126                     case 2:
127                     c.display();
128                     break;
129 
130                     case 3:
131                     System.out.println("Enter amount you want to withdraw:");
132                     amount = xx.nextDouble();
133                     c.withdrawal(amount);
134                     break;
135 
136                     default:
137                     flag1 = 1;
138                 }
139             }
140             break;
141             case 2:System.out.println("\nSavings account:\n");
142             System.out.println("Enter the name of account holder");
143             String p=xx.next();
144             System.out.println("Enter the account number");
145             long q=xx.nextLong();
146             System.out.println("Enter the balance amount");
147             double r=xx.nextDouble();
148             Sav_acct s = new Sav_acct(p,q,"Savings",r);
149             int flag2 = 0;
150             while(flag2 == 0)
151             {
152                 System.out.println("Enter your choice\n1:Deposit amount\n2:DisplayBalance\n3:Withdraw");
153                 int choice2 = xx.nextInt();
154                 switch (choice2)
155                 {
```

```
                }
                break;
                case 2:System.out.println("\nSavings account:\n");
                System.out.println("Enter the name of account holder");
                String p=xx.next();
                System.out.println("Enter the account number");
                long q=xx.nextLong();
                System.out.println("Enter the balance amount");
                double r=xx.nextDouble();
                Sav_acct s = new Sav_acct(p,q,"Savings",r);
                int flag2 = 0;
                while(flag2 == 0)
                {
                    System.out.println("Enter your choice\n1:Deposit amount\n2:DisplayBalance\n3:Withdraw");
                    int choice2 = xx.nextInt();
                    switch (choice2)
                    {
                       case 1:System.out.println("Enter amount to be deposited:");
                       amount = xx.nextDouble();
                       s.deposit(amount);
                       break;
                       case 2:
                       s.display();
                       break;
                       case 3:
                       System.out.println("Enter amount you want to withdraw:");
                       amount = xx.nextDouble();
                       s.withdrawal(amount);
                       break;
                       default:
                       flag2 =1;
                    }
                }
                break;
                default:flag=1;
            }
        }
    }
}
```

```
C:\Users\akki\Desktop\PROJECT WORK>javac bank.java

C:\Users\akki\Desktop\PROJECT WORK>java AccountMain
Enter the type of Account:
1:Current account
2:Savings account
1

Current account:

Enter the name of account holder
Geetika
Enter the account number
873257
Enter the balance amount
50000
Name of the customer: Geetika
Account Number : 873257
Account type: current
Balance: 50000.0
Enter your choice
1:Deposit amount
2:DisplayBalance
3:Withdraw
1
Enter amount to be deposited:
400
Enter your choice
1:Deposit amount
2:DisplayBalance
3:Withdraw
2
Balance is: 50400.0
Enter your choice
1:Deposit amount
2:DisplayBalance
3:Withdraw
3
Enter amount you want to withdraw:
600
The current balance is 49800.0
Enter your choice
1:Deposit amount
```

```
Enter your choice
1:Deposit amount
2:DisplayBalance
3:Withdraw
2
Balance is: 49800.0
Enter your choice
1:Deposit amount
2:DisplayBalance
3:Withdraw
8
Enter the type of Account:
1:Current account
2:Savings account
2

Savings account:

Enter the name of account holder
Mili
Enter the account number
926346
Enter the balance amount
8000
Name of the customer: Mili
Account Number : 926346
Account type: Savings
Balance: 8000.0
Enter your choice
1:Deposit amount
2:DisplayBalance
3:Withdraw
1
Enter amount to be deposited:
400
The interest amount added to balance is 840.0
Enter your choice
1:Deposit amount
2:DisplayBalance
3:Withdraw
2
Balance is: 9240.0
Enter your choice
1:Deposit amount
```

```
Enter the name of account holder
Mili
Enter the account number
926346
Enter the balance amount
8000
Name of the customer: Mili
Account Number : 926346
Account type: Savings
Balance: 8000.0
Enter your choice
1:Deposit amount
2:DisplayBalance
3:Withdraw
1
Enter amount to be deposited:
400
The interest amount added to balance is 840.0
Enter your choice
1:Deposit amount
2:DisplayBalance
3:Withdraw
2
Balance is: 9240.0
Enter your choice
1:Deposit amount
2:DisplayBalance
3:Withdraw
3
Enter amount you want to withdraw:
600
The current balance is 8640.0
Enter your choice
1:Deposit amount
2:DisplayBalance
3:Withdraw
8
Enter the type of Account:
1:Current account
2:Savings account
8
```