

```

import java.util.Scanner;
abstract class Account {
    String c-name, acc-type;
    int acc-num;
    double balance;
    int minbalance = 2000;
    Account (String c-name, int acc-num,
    double balance) {
        this.c-name = c-name;
        this.acc-num = acc-num;
        this.balance = balance;
        this.acc-type = acc-type;
    }
    abstract void addbal(double amount);
    abstract void display();
    abstract void withdraw(double amount);
}

class curr-acc extends Account {
    curr-acc (String c-name, int acc-num,
    double balance) {
        super (c-name, acc-num, balance);
        system.out.println ("Details of the
        customer:");
        system.out.println ("Customer name:
        " + c-name + "\t Account number:");
    }
    void addbal (double amount) {
        this.balance += amount;
    }
}
    
```



```

void display () {
    System.out.println("The balance
    is : " + this.balance);
}

void withdraw (double amount) {
    if (this.balance < amount) {
        System.out.println("Insufficient funds");
        System.out.println("Your balance is : " + this
        .balance);
        return;
    }
    this.balance = this.balance - amount;
    if (this.balance < minbalance) {
        this.balance = this.balance - this
        balance * 0.5;
        System.out.println("A penalty of Rs.
        " + this.balance * 0.5 + " has been charged
        as minimum balance is not satisfied");
        System.out.println("Updated balance:
        " + this.balance);
        System.out.println("Cannot withdraw");
    }
    else if (balance > minbalance) {
        this.balance = this.balance - amount;
        System.out.println("Balance is : "
        + this.balance);
    }
}
    
```



```

}
class sav-acct extends Account {
    sav-acct (String c-name, int acc-num,
    double balance) {
        & super (c-name, acc-num, balance);
        System.out.println ("Customer name:
        "+c-name + "/" + Account number:");
    }
    void addbal (double amount) {
        this.balance += amount;
    }
    void display () {
        System.out.println ("The balance is:
        "+this.balance);
    }
    void withdraw (double amount) {
        if (this.balance < amount) {
            System.out.println ("Insufficient
            funds");
            System.out.println ("Your balance is:
            "+this.balance);
        }
        this.balance = this.balance - amount;
        if (this.balance < minbalance) {
            this.balance = this.balance - this.balance
            * 0.5;
            System.out.println ("A penalty of
            Rs. "+this.balance * 0.5 + " has been
    
```


charged as minimum balance is not satisfied ") ;

System.out.println ("Updated Balance : "+this.balance);

System.out.println ("Cannot withdraw")

;

}

else if (balance > minbalance) {

this.balance = this.balance - amount;

System.out.println ("Balance is : "+this.balance);

}

}

void interest () {

int time = 3, n = 1;

System.out.println ("Rate of interest is 0.2");

this.balance = this.balance * Math.pow (1 + (0.2)/n, (n* time));

System.out.println ("Amount after adding Interest is "+this.balance

}

}

class Bank {

public static void main (String args []) {

int choice, ch, n = 1;

double amount;

```
Scanner s1 = new Scanner(System.in);
curr-acct c = new curr-acct("Ram",
12345, 50000);
sav-acct s = new sav-acct("Ram",
12345, 50000);
System.out.print In("Press 1. For
Current account /n Press 2. For saving
account");
choice = s1.nextInt();
Switch(choice) {
```

```
case 1: System.out.print In("# Current
Account * ");
while (n != 0) {
System.out.print In("1. Add Balance /n 2.
display Balance /n 3. withdraw /n 4. check
book /n 5. Exit");
ch = s1.nextInt();
String receiver;
double recamount;
switch (ch) {
```

```
case 1:
System.out.print In("Enter amount
to be added");
amount = s1.nextDouble();
c.addbal(amount);
break;
```


case 2 :

```
c.display ();  
break ;
```

case 3 :

```
System.out.println ("enter amount  
to be withdrawn:");  
amount = s1.next Double ();  
c.withdraw (amount);  
break ;
```

case 4 :

```
System.out.println ("Enter the name of  
the receiver:");  
receiver = s1.next ();  
System.out.println ("Enter amount to  
be debited to receiver:");  
recamount = s1.next Double ();  
if (recamount > c.balance) {  
System.out.println ("Insufficient  
Balance");  
}  
else {  
System.out.println ("Amount of "  
+ recamount + " sent to " + receiver);  
c.balance = c.balance - recamount;  
System.out.println ("Balance: " + c.  
balance);  
}
```

case 5:

n=0

break

default: System.out.println ("Invalid input");

}

}

break;

case 2: System.out.println (" * Savings Account * ");

while (n != 0) {

System.out.println ("1. Add Balance / n2. display Balance / n3. withdraw / n4. calculate interest / n5. Exit ");

ch = s1.nextInt();

switch (ch) {

case 1:

System.out.println ("enter amount to be added : ");

amount = s1.nextDouble();

s.addbal (amount);

break;

Case 2:

s.display();

break;

case 3:

```
System.out.println ("enter amount  
to be withdrawn:");  
amount = s.next Double ();  
s.withdraw (amount);  
break;
```

case 4:

```
s.interest ();  
break;
```

case 5:

```
n = 0;  
break;
```

default:

```
System.out.println ("Invalid input")  
}  
}  
break;
```

```
default: System.out.println ("  
Invalid input");  
}  
}  
}
```