LAB 4

Develop a Java program to create a class Bank that maintains two kinds of account for its customers, one called saving account and the other current account. The saving account provides compound interest and withdrawal facilities but no cheque book facility. The current account provides cheque book facility but no interest. Current account holders should also maintain a minimum balance and if the balance falls below this level, a service charge is imposed. Create a class Account that stores customer name, account number and type of account. From this derive the classes cur-acct and sav-acct to make them more specific to their requirements.

Include the necessary methods in order to achieve the following tasks:

- Accept deposit from customer and update the balance.
- Display the balance.
- Compute and deposit interest
- Permit withdrawal and update the balance
- Check for the minimum balance, impose penalty if necessary and update the balance

```
import java.util.*;
import java.util.Scanner;
class Account
{
 Scanner xx = new Scanner(System.in);
 String customer_name, type_of_account;
 long account_number;
 double balance = 5000;
 void accept()
 {
  System.out.println("Enter customer name");
  customer_name = xx.next();
  System.out.println("Enter Account number");
  account_number = xx.nextLong();
 }
```

```
void deposit()
{
int dep;
System.out.println("Enter the amount to be deposited");
dep = xx.nextInt();
balance += dep;
System.out.println("Balance = " + balance);
}
void withdrawal()
{
int withdra;
System.out.println("Enter the amount to be withdrawn");
withdra = xx.nextInt();
balance = withdra;
System.out.println("Balance = " + balance);
}
}
class CurrAct extends Account
{
void penalty()
{
if (balance < 2000)
{
balance -= 100;
System.out.println("Penalty of 100 Rs is taken for maintain-
ing less balance");
System.out.println("Balance = " + balance);
}
}
class SavAct extends Account
{
void interest()
{
double i;
i = balance * 0.02;
balance += i;
System.out.println("Interest = " + i);
System.out.println("Total Balance = " + balance);
}}
```

```
class Bank
{
public static void main(String args[])
{
Scanner xx = new Scanner(System.in);
CurrAct c = new CurrAct();
SavAct s = new SavAct();
for(;;)
{
System.out.println("Enter your choice\n1. Saving account
                    \n2. current account");
int choice = xx.nextInt();
if(choice==1)
{
s.Accept();
System.out.println("Enter your choice\n1. Deposite\n2. Withdrawl");
int n = xx.nextInt();
switch(n)
{ case 1: s.deposit();
          s.interest();
          break;
  case 2: s.withdrawal();
          break;
  default: System.out.println("entered wrong option");
}
}
if(choice==2)
{
c.Accept();
System.out.println("Enter your choice\n1. Deposite\n2.
                    withdrawl");
int n = xx.nextInt();
```

```
switch(n)
{
case 1: c.deposit();
        break;
case 2: c.withdrawal();
        E.penalty();
        break;
default: System.out.println("entered wrong option");
}
}
}
}
}
```