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Program-5

Develop a Java program to create a class Bank that maintains two kinds of account for its customers, one called savings account and the other current account. The savings 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 method in order to achieve the following tasks.

Accept deposit from customer & update the balance

Display the balance

Compute and deposit interest.

Permit withdrawal & update the balance

Check for the minimal balance, impose penalty if necessary & update the balance.

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```
import java.util.Scanner;
Import java.long.math;
class account
{
String name = new string();
int Accno;
double bal;
Scanner S = new Scanner (System.in);
void set ()
{
System.out.Println("Enter customer name");
name = S.nextline();
System.out.Println("Enter" + name "S accaunt
Accno = S.nextInt();
System.out.Println("Enter balance amount")
bal = S.next Double();
}
void display()
{
System.out.Println("Customes name:" + name);
System.out.Println("Your account number:"
System.out.Println("Your Account balance:"+
}
account () {}
```

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```
class savacct extends account
{
 Scanner s= new scanner(System.in);
 Savacct()
 {
 System.out.Println("Cheque facility not available");
 }
 void deposit()
 {
  Int ch;
  double amt;
  System.out.Println("Press 1 to deposit");
   ch = s.nextInt();
  if (ch==1)
   {
    System.out.Println("Enter amount to deposit");
    amt = s.nextDouble();
    bal = bal + amt;
   }
  else
    System.out.println("Invalid Input");
 }
void int()
{
System.out.Println("Enter rate of Intrest");
  double r= s.nextDouble();
System.out.Println("Enter no.of times, Intrest applied
                    per three period");
```

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```
int n = s.nextInt();
System.out.println("Enter no.of time period");
int t = s.nextInt();
    double x = bal * (1 + (r/n));
    double ci = Math.pow (x, n*t);
System.out.println("Interest amount" + ci + "\n
        Balance amount without Interest is" +
bal = bal + ci;
System.out.println("Available balance after
        updating is" + bal);
}
void wd()
{
System.out.println("Press 1 to withdraw
                    amount");
~~double wdraw = s.~~
int ch = s.nextInt();
if (ch==1)
{
System.out.println("Enter the amt to
        be withdrawn");
double wdraw = s.nextDouble();
 bal = bal - wdraw;
System.out.println("Available balance: " + bal);
}
else
  System.out.println("Invalid Input");
}
```

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```
class curacct : extends account
{
 Scanner S = new Scanner (System.in);
 current ()
 {
  System.out.println ("cheque facility available");
 }
void deposit()
{
 int ch;
 double amt;
 System.out.println ("Press 1 to deposit");
 ch = S.nextInt();
  if (ch==1)
  {
  System.out.println ("Enter amount to be deposited");
  amt = S.nextDouble ();
   bal = bal + amt;
  }
  else
   System.out.println ("In Invalid Input");
void wd()
{
System.out.println ("Press 1 to withdraw the
                     amount");
Int ch = S.nextInt();
  if (ch==1)
{
```

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```
System.out.println("Enter amount to be withdrawn");
double wdraw = S.nextDouble();
    bal = bal - wdraw;
    System.out.println("Available balance"+bal
}
else
System.out.println("Invalid Input");
if (bal<1000)
{
System.out.Println("You are running out of minimum balance In Amount of rupees 50 has been credited has service charge");
    bal = bal-50;
    System.out.Println("Your available balance"+ba
}
}
}
Public class lab5
{
Public Static void main (String xx[])
{
Scanner S = new Scanner (S+ System.in)
int ch;
System.out.println("\n\n Press \n 1. if your acount is savings acount \n 2. if your acount is current acount
```

```
ch = S.nextInt();
switch (ch)
{
case 1:
    Savacct
    S
    ;

case 2;
    Cu

default:
}
{
}
```

```
ch = s.nextInt();
switch(ch)
{
 case 1:
      Savacct s1 = new savacct();
          s1.set();
          s1.display();
          s1.deposit();
          s1.in();
          s1.wd();
          break;
 case 2:
      Curacct c1 = new curacct();
          c1.set();
          c1.display();
          c1.deposit();
          c1.wd();
          break;
default: System.exit(0);
```

```
23456
Name : tg
Cheque service not available
Do you want to deposit(1 for yes ,2 for no)
1
Enter the amount to be deposited
1234
Current balance : 24690.0
Enter the rate of interest
13
Enter the number of times interest applied per time period
2
Enter the time elapsed
20
Compound interest is 3.19716608829877 66E209
Enter the amount to be withdrawn
20000
Withdrawn : 20000.0
Current balance : 4690.0

C:\Users\student\Desktop\1bm21cs052>javac bank.java

C:\Users\student\Desktop\1bm21cs052>java account

1.Savings account
2.Current account
1
Enter your name
dhanush
Enter the balance amount
50000
Name : dhanush
Cheque service not available
Do you want to deposit(1 for yes ,2 for no)
1
Enter the amount to be deposited
25000
Current balance : 75000.0
Enter the rate of interest
8
Enter the number of times interest applied per time period
2
Enter the time elapsed
2
Compound interest is 5.0625E20
Enter the amount to be withdrawn
25000
Withdrawn : 25000.0
Current balance : 50000.0

C:\Users\student\Desktop\1bm21cs052>_
```