

Lab-Program-5

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 accounts provide compound interest and withdrawal facilities but no cheque book facility but no interest. Current account holder should also maintain a minimum balance and if the balance falls below this level, a service charge is imposed.

Create a class Account to store customer name, account number

and type of account. From this derive the class current and sav-acct to make them more specific to their requirements.

- a) Accept deposit from customer & update the balance
- b) Display the balance
- c) Compute and deposit interest
- d) Permit withdrawal and update the balance.

```
Import java.util.Scanner;  
import java.lang.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 account number");  
        accno = s.nextInt();  
        System.out.println("Enter balance amount");  
        bal = s.nextDouble();  
    }  
    void display () {  
        System.out.println("Your Customer Name : " + name);  
        System.out.println("Your account number : " + accno);  
        System.out.println("Your account Balance : " + bal);  
    }  
    account () {}  
}
```

```
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");
        if (ch == 1)
        {
            System.out.print ("Enter amount to be deposited");
            amt = s.nextDouble();
            bal = bal + amt;
        }
        else
            System.out.print ("Enter amount to be deposited");
            amt = s.nextDouble();
            bal = bal + amt;
        }
        else
            System.out.println ("Valid Input");
    }
}
```

3. Write a program to calculate compound interest.

void inc()

{

System.out.println("Enter rate of interest");

double r = s.nextDouble();

System.out.println("Enter number of times interest applied per time period");
int n = s.nextInt();

System.out.println("Enter the number of time periods");
int t = s.nextInt();

double x = (1 + (r / 100));

double ci = bal * Math.pow(x, n);

System.out.println("Interest amount = " + ci);
amount without interest is " + bal);

System.out.println("Available balance after updating is " + ci);

void wd()

{

System.out.println("Press 1 to withdraw amount");

int ch = s.nextInt();

if (ch == 1)

{

System.out.println("Enter the amount to be withdrawn");

double wdraw = s.nextDouble();

if (wdraw > bal).

{ System.out.println("Balance is lesser than withdrawal amount");
return; }

else
bal = bal - withdraw;

System.out.println("Available Balance" + bal);
else System.out.println("Invalid Input");
}

class account extends account

{
Scanner s = new Scanner(System.in);
char c = s.next().charAt(0);

if (c == 'd')
System.out.println("cheque facility available");
else

void deposit()

{
int ch;

double amt;

System.out.println("Press 1 to deposit");

ch = s.nextInt();

if (ch == 1)

{

```
System.out.println("Press 1 to deposit");  
ch = s.nextInt();
```

```
System.out.println("Enter amount to be deposited");  
amt = s.nextDouble();  
bal = bal + amt;
```

```
}
```

```
else
```

```
System.out.println("Invalid Input");  
}
```

```
void wd()
```

```
{ System.out.println("Press 1 to withdraw amount");  
int ch = s.nextInt();  
if (ch == 1)
```

```
System.out.println("Enter the amount to be withdrawn");  
double wdraw = s.nextDouble();  
bal = bal - wdraw;
```

```
System.out.println("Available Balance is "+bal);  
else System.out.println("Invalid Input");  
if (bal < 1000)
```

```
System.out.println("Balance below minimum amount.  
penalty of 50Rs has been created");  
bal = bal - 50;
```

```
System.out.println("Your Available Balance is "+bal);
```

3. Write a C++ program that takes a string input from the user and prints it back to the user.

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public class lab5

```
public static void main (String [] args)
```

{

```
Scanner s = new Scanner (System.in);
```

int ch;

```
System.out.println ("Enter your account type: 1. Saving account 2. Current account");
```

ch = s.nextInt();

```
switch (ch)
```

{

```
case 1:
```

Savacct s1 = new Savacct();

```
s1.set();
```

```
s1.display();
```

```
s1.deposit();
```

```
s1.inc();
```

```
s1.wd();
```

```
break;
```

```
case 2:
```

```
curracct c1 = new curracct();
```

```
c1.set();
```

```
c1.display();
```

```
c1.deposit();
```

```
c1.wd();
```

```
break;
```

```
default: System.exit(0);
```

```
}
```

```
}
```

```
}
```

output:

Enter account type:

1. ~~Current~~ Saving account

2. Current account.

1

cheque facility not available

Enter customer name

aaaaa

Enter aaaa's account number.

555

Customer enter balance amount

60000

Customer names ~~to~~ is aaaa

Your account number is 555

Your balance is 60000

```
Command Prompt - java Lab5

Enter your account type:
1. Savings account
2. Current account
3. Others
1
Cheque Facility not available
Enter customer name
aaa
Enter aaa's account number
55
Enter balance amount
60000
Customer Name:aaa
Our account number:555
Our Account Balance:60000.0
Press 1 to deposit

Enter amount to be deposited
00
Enter rate of interest

Enter number of times interest applied per time period
1
Enter number of time periods
1
Interest amount=68054.2720000001
Balance amount without interest is60500.0
Available balance after updating is68054.2720000001
Press 1 to withdraw amount
```