⑤ Lab 5 – 09/01/2024

Develop a Java program to create class ~~Bank~~ Account that maintains two kinds of account for its customers one saving and other current account.

Savings account provides – compound interest & withdrawal facilities. No cheque book facility

Current account provides – cheque book facility but no interest. Service charge imposed if balance falls below minimum balance.

Create a class Account that stores customer name, acc no, type of acc. From this derive classes Curr-Act and Sav-Acct. Include methods to achieve:

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

```
import java.util.Scanner;
class Bank Account
{
  String cname;
  long accno;
  String type;
  Account( String cn, long ac, String t)
  {
      cname = cn;
      accno = ac;
      type = t;
```

```
}
}
import java.util.Scanner;
class CurrAct extends Account
{
double balance;
CurrAct ( String cn, long ac, String t, double b)
{
 super(cn, ac, t);
 balance = b;
}
public void operations()
{
Scanner scan = new Scanner (System.in);
System.out.println("Enter name : ");
String s = scan.nextLine();
System.out.println("Enter account number : ");
long n = scan.nextLong();
System.out.println("
do { int c;
System.out.println("Enter choice : ");
System.out.println("1. Deposit ");
System.out.println("2. Display balance ");
System.out.println("3. Withdrawal ");
System.out.println("4. Exit ");
c = scan.nextInt();
switch (c)
{
 case 1:
System.out.println("Enter deposit amount : ");
```

```
double deposit = Scan.nextDouble();
balance += deposit;
break;
case 2:
System.out.println("Balance is: " + balance);
break;
case 3:
System.out.println("Enter wi
if (balance < 100)
{ System.out.println("Less than minimum balance.
                    Fine of Rs.5");
  balance -= 5;
}
else
 {
  System.out.println("Enter withdrawal amount:");
  double amt = scan.nextDouble();
  balance -= amt;
  System.out.println("Withdrawal Successful. Current
                    Balance = " + balance);
 }
break;
case 4:
System.out.println("Thank You.");
break;
default:
 System.out.println("Invalid choice.");
} } while (c!=4); }
}
```

class SavAcct extends Account

{
double balance;

SavAcct (String cn, long ac, String t, double b)
{
super (cn, ac, t);
balance = b;

}
public void operations()
{
Scanner scan = new Scanner(System.in);
do
{
int c;
System.out.println("1. Deposit.");
System.out.println("2. Withdraw.");
System.out.println("3. Compute & deposit interest.");
System.out.println("4. Display ~~details~~ balance.");
System.out.println("5. Exit.");

switch(c)
{

case 1:
System.out.println("Enter deposit amount:");
double deposit = scan.nextDouble();
balance += deposit;
break;
case 2:
if(balance < 100)
{
System.out.println("Less than minimum balance
Fine of Rs. 5");

```
balance -= 5;
}
else
{
  System.out.println("Enter withdrawal amount:");
  double amt = scan.nextDouble();
  balance -= amt;
  System.out.println(amt + " has "withdrawal
                     successful. Balance = " + balance);
}
break;
Case 3:
  double r = 6.0/100.0;
  System.out.println("Enter duration of account
                     holding.");
  int t=scan.nextInt();
  double interest = balance * Math.pow((1+r), t) -
                    balance;
  balance = balance + interest;
  System.out.println("Batan Interest: " + interest);
  System.out.println("Balance:" + balance);
  break;
Case 4:
  System.out.println("Balance: " + balance);
  break;
Case 5:
  System.out.println("Thank You
  Invalid choice");
  break;
default:
```

```
System.out.println("Invalid choice.");

}while(ch!=5);



class main
{
public static void main(String args[])
{
Scanner scan = new Scanner(System.in);
System.out.println("Enter name:");
String s=scan.nextLine();
System.out.println("Enter account number:");
long ac=scan.nextLong();
System.out.println("Enter account type: Savings/
                    Current");
String t=scan.nextLine();
System.out.println("----------");
System.out.println("Details:");
System.out.println("Name:"+s+"\n"+
                   "AccNo:"+ac+"\n"+
                   "Acc Type:"+t);

if(t.equalsIgnoreCase("Savings"))
 {
  SavAcct sv=new SavAcct(s,ac,t,
System.out.println("Enter account balance:");
double b=scan.nextDouble();
if(t.equalsIgnoreCase("Savings"))
{
```

```
SavAcct sv= new SavAcct(s,ac,t,b);
sv.operations();
}
else if(t.equalsIgnoreCase("Current"))
 {
   CurrAct ct=new CurrAct(s,ac,t,b);
   ct.operations();
}
}
```