1BM19CS006

3/11/20

Lab 5

```
import java.util.Scanner;
abstract class Account
{
String name, acctype;
long accNo;
double bal;

Account (String name, long accNo, double bal,
    String acctype )
{
this.accNo = accNo;
this.name = name;
this.bal = bal;
this.acctype = acctype;
}
abstract void addBal( double amt);
abstract void displayBal ();
abstract void withdrawBal (double amt);
}

class Curr_actt extends Account
{ final double minBal = 1000.0;
Curr_acct (String name, long accNo, double bal)
{ super (name, accNo, bal, "Current ");
System.out.println ("Name: "+name+ "\n Accno: "
+accNo+ "\n Balance: "+bal+"\n Account Type: "
+acctype);
}
```

```
void addBal (double amt)
{ this.bal += amt;
}
void displayBal ()
{
System.out.println ("The balance is : "+this.bal);
}
void checkBal()
{ if (this.bal < minBal)
{
System.out.println ("Insufficient balance, service charge
will be imposed ");
this.bal -= this.bal * 0.02;
}
}
void withdrawBal (double amt)
{ this.bal -= amt;
checkBal();
}
}

class Sav_acct extends Account
{
Sav_acct (String name, long accNo, double bal)
{ super (name, accNo, bal, "Savings");
System.out.println("Name : "+name+"\n Accno : "+
accNo + "\n Balance : "+bal+"\n Account Type : "
+acctype);
}
```

IBM19CS006

```
void addBal (double amt)
{
  this.bal += amt;
}

void addCI (double amt)
{
  this.bal += amt;
  addInte ();
}

void addInte()
{
  int tm = 2, R=7;
this.bal += this.bal* (Math.pow((1+(R/100)),tm));
}

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

void withdrawBal (double amount)
{
this.bal -= amt;
}
}

class AccountMain {
public static void main(String [] args) {
Scanner sc = new Scanner(System.in);
double amt;
System.out.println ("Enter details : ");
System.out.println ("Name : ");
String = sc.next();
```

31

```
System.out.println("Account Number: ");
long a2 = sc.nextLong();
while (true) {
System.out.println("Account type: \n 1. Current account \n
2. Savings account \n 3. Exit");
int o = sc.nextInt();
if (o == 1) {
System.out.println("The current account provides cheque
book facility but no interest ");
Curr_acct cr = new Curr_acct (a1, a2, 20000);
while(true) {
System.out.println("1. Deposit \n 2. Display balance \n
3. Withdraw Amount \n 4. Exit");
int ch = sc.nextInt();
switch (ch) {
case 1: System.out.println("Enter the amount to be
added: "); amt = sc.nextDouble();
cr.addBal (amt);
break;
case 2: cr.displayBal();
break;
case 3: System.out.println("Enter amount to be withdrawn: ");
amt = sc.nextDouble();
cr.withdrawBal (amt);
break;
case 4: System.exit(0);
default: System.out.println("Invalid choice");
}
}
}
```

```
else if(o==2){
System.out.println("The Savings Account provides compound interest and withdrawal facilities but no cheque book facility ");
Sav_acct sv=new Sav_acct(s1,s2,5000);
while(true){
System.out.println("1.Deposit \n 2.Deposit compound interest \n 3.Display Balance \n 4.Withdraw Amount \n 5.Exit");
int ch=sc.nextInt();
switch(ch){
case 1: System.out.println("Enter the amount to be added:");
amt=sc.nextDouble();
sv.addBal(amt);
break;
case 2: System.out.println("Enter the amount to be compounded: ");
amt=sc.nextDouble();
sv.addCI(amt);
break;
case 3: sv.displayBal();
break;
case 4: System.out.println("Enter the amount to be withdrawn: ");
amt=sc.nextDouble();
sv.withdrawBal(amt);
break;
case 5: System.exit(0);
```

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

else if(o==3)
 System.exit (0);
 else
 System.out.println ("Invalid choice");
  }
 }
}
```