

## Lab 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~~. Create a class Account that stores customer name, account number and type of account. From this derive the classes Cur-act and Sav-act to make them more specific to their requirement.

```
import java.util.Scanner;
```

```
class account {  
    String name;  
    int accno;  
    String type;  
    double balance;
```

```
    account (String name, int accno, String type, double balance)  
    {
```

```
        this.name = name;  
        this.accno = accno;  
        this.type = type;  
        this.balance = balance;  
    }
```

```
    void deposit (double amount)  
    {  
        balance += amount;
```

```
    }  
    void withdraw (double amount)  
    {
```

```
        if (balance - amount >= 0)  
        {  
            balance -= amount;  
        }
```

```

    else
    {
        System.out.println("Insufficient balance, can't withdraw")
    }
}

void display()
{
    System.out.println("Name: " + name + "\nAcno: " + acno
        + "\nType: " + type + "\nBalance: " + balance);
}
}

```

```

class savAcct extends account {
    private static double rate = 5;
    savAcct (String name, int acno, double balance)
    {
        super(name, acno, "savings", balance);
    }
    void interest ()
    {
        balance += balance * (rate) / 100;
        System.out.println ("Balance: " + balance);
    }
}

```

```

class currAcct extends account {
    private double minBal = 500;
    private double serviceCharges = 50;
    currAcct (String name, int acno, double balance)
    {
        super (name, acno, "Current", balance);
    }
}

```



```

void checkmin ()
{
    if (balance < minBal)
    {
        System.out.println("Balance is less than min balance  

        service charges imposed:" + serviceCharges);
        balance -= serviceCharges;
        System.out.println("Balance is:" + balance);
    }
}

```

```

}
class Bank
{

```

```

    public static void main (String args[])
    {

```

```

        Scanner s = new Scanner(System.in);

```

```

        System.out.println("Enter the name, type (current/savings),  

        account number, initial balance:");

```

```

        String name = s.next();

```

```

        String type = s.next();

```

```

        int accno = s.nextInt();

```

```

        double balance = s.nextDouble();

```

```

        int ch;

```

```

        double amount1, amount2;

```

```

        account acc = new account(name, accno, type, balance);

```

```

        saveAcct sa = new saveAcct(name, accno, balance);

```

```

        curAcct ca = new curAcct(name, accno, balance);

```

```

        while (true) {

```

```

            if (acc.type.equals("savings")) {

```

```

                System.out.println("Menu\n1. deposit 2. withdraw  

                3. compute interest 4. display");

```

```

                System.out.println("Enter the choice:");

```

```

                ch = s.nextInt();

```

~~switch~~

switch(ch){

case 1:

System.out.println("Enter the amount:");

amount1 = s.nextInt();

ca.deposit(amount1);

break;

case 2:

System.out.println("Enter the amount:");

amount2 = s.nextInt();

sa.withdraw(amount2);

break;

case 3:

sa.interest(c);

break;

case 4:

sa.display();

break;

case 5:

System.exit(0);

default:

System.out.println("Invalid input");

break;

}

}

else {

System.out.println("Menu: 1. Deposit 2. Withdraw 3. Display");

System.out.println("Enter the choice:");

ch = c.nextInt();

switch(ch)

{

case 1:

System.out.println("Enter the amount:");

amount1 = s.nextInt();

ca.deposit(amount1);

break;



case 2:

```
System.out.println("Enter the amount:");
amount = S.nextInt();
ca.withdraw(amount2);
ca.checkmin();
break;
```

case 3:

```
ca.display();
break;
```

case 4:

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

default:

```
System.out.println("Invalid input");
break;
```

}

}

}

}

Output:

Enter the name, type (current/saving), account number, initial balance

Shreyas

saving

123

50000

Menu

1. Deposit 2. Withdraw 3. Compute interest 4. Display

Enter the choice:

1

Enter the amount:

5000

Menu:

1. Deposit 2. Withdraw 3. Compute Interest 4. Display

2

Enter the amount:

500

Menu:

1. Deposit 2. Withdraw 3. Compute Interest 4. Display

3

Balance: 57225.0

Menu:

1. Deposit 2. Withdraw 3. Compute Interest 4. Display

Enter the choice:

4

Name: Shreyas

Accno: 123

Type: Savings

Balance: 57225.0

Enter the ~~choice~~ name, type (Current/Saving), account number, initial balance:

Shreyas

current

101

500000

Menu

1. deposit 2. withdraw 3. display

Enter the choice

1

Enter the amount:

5000



Menu

1. deposit 2. withdraw 3. display

Enter the choice:

2

Enter the amount:

500

Menu

1. deposit 2. withdraw 3. display

Enter the choice:

Name: Shreyas

Acno: 101

Type: Current

Balance: 504500.0

USN=IBM2X5272