

FACTORY ASSIGNMENT - 2

2. Implement a banking application by using Factory Class

Fact.java

```
import java.rmi.*;

public interface Fact extends Remote
{
    public float Deposit(float amt,float curamt)throws RemoteException;
    public float Withdraw(float amt,float curamt)throws RemoteException;
}
```

FactImpl.java

```
import java.rmi.*;
import java.rmi.server.*;

public class FactImpl extends UnicastRemoteObject implements Fact
{
    String name;

    public FactImpl(String b)throws RemoteException
    {
        name=b;
    }

    public float Deposit(float amt,float curamt)throws RemoteException
    {
        curamt += amt;
        return curamt;
    }

    public float Withdraw(float amt,float curamt)throws RemoteException
    {

```

```
curamt-=amt;

return curamt;

}

}
```

Server.java

```
import java.rmi.*;

public class Server

{

public static void main(String args[])

{

try{

FactoryImpl ob=new FactoryImpl();

Naming.rebind("rmi://localhost/Myob",ob);

System.out.println("Server Running!!!");

}catch(Exception e)

{

e.printStackTrace();

}

}

}
```

Client.java

```
import java.rmi.*;

import java.util.*;

public class Client

{

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

```

{
try{
float curamt=0,amt=0;

int accno=0;

float amount;

String name="";

FactoryIntr ob=(FactoryIntr)Naming.lookup("rmi://localhost/Myob");

Fact b=(Fact)ob.getreference("Java");

Scanner sc=new Scanner(System.in);

System.out.println("Enter your name");

name=sc.next();

System.out.println("Enter your accno");

accno=sc.nextInt();

System.out.println("Enter your current account balance");

curamt=sc.nextFloat();

System.out.println("Enter \n1. TO DEPOSIT \n2. TO WITHDRAW");

System.out.println("Enter your choice");

int ch=sc.nextInt();

switch(ch)
{
case 1 :System.out.print("Enter the Amount to be deposited : ");

amt = sc.nextFloat();

amount = b.Deposit(amt,curamt);

System.out.println("Successful");

System.out.println("Your Current Balance is "+amount);

break;

case 2 : System.out.print("Enter the Amount to be Withdraw : ");

amt = sc.nextFloat();

```

```

if(amt < curamt)
{
amount = b.Withdraw(amt,curamt);
System.out.println("Withdrawal Successful");
System.out.println("Your Current Balance is "+amount);
}
else
System.out.println("No sufficient amount, Withdrawal not possible ");
break;
default : System.out.println("Invalid operation");
}
} catch(Exception e){e.printStackTrace();}
}
}

```

FactoryIntr.java

```

import java.rmi.*;

public interface FactoryIntr extends Remote
{
public Fact getreference(String bname)throws RemoteException;
}

```

FactoryImpl.java

```

import java.rmi.server.*;

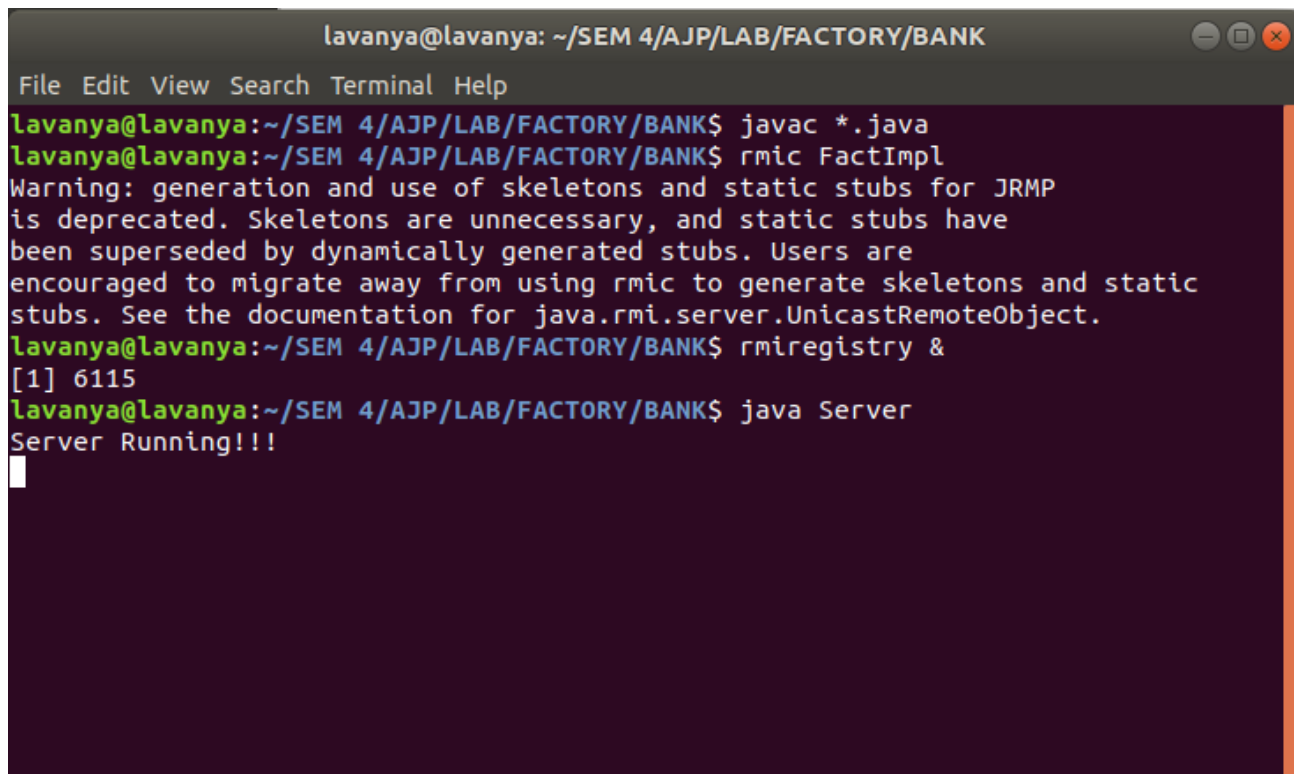
import java.rmi.*;

public class FactoryImpl extends UnicastRemoteObject implements
FactoryIntr{

```

```
public FactoryImpl() throws RemoteException {  
    super();  
}  
  
public Fact getreference(String bname)  
{  
    FactImpl ob=null;  
    try{  
        ob=new FactImpl(bname);  
    }catch(Exception e){}  
    return ob;  
}  
}
```

OUTPUT

A terminal window titled 'lavanya@lavanya: ~/SEM 4/AJP/LAB/FACTORY/BANK' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and output:

```
lavanya@lavanya:~/SEM 4/AJP/LAB/FACTORY/BANK$ javac *.java  
lavanya@lavanya:~/SEM 4/AJP/LAB/FACTORY/BANK$ rmic FactImpl  
Warning: generation and use of skeletons and static stubs for JRMP  
is deprecated. Skeletons are unnecessary, and static stubs have  
been superseded by dynamically generated stubs. Users are  
encouraged to migrate away from using rmic to generate skeletons and static  
stubs. See the documentation for java.rmi.server.UnicastRemoteObject.  
lavanya@lavanya:~/SEM 4/AJP/LAB/FACTORY/BANK$ rmiregistry &  
[1] 6115  
lavanya@lavanya:~/SEM 4/AJP/LAB/FACTORY/BANK$ java Server  
Server Running!!!
```

File Edit View Search Terminal Help

lavanya@lavanya:~/SEM 4/AJP/LAB/FACTORY/BANK\$ java Client

Enter your name

Lavanya

Enter your accno

10122364587

```
java.util.InputMismatchException: For input string: "10122364587"
    at java.base/java.util.Scanner.nextInt(Scanner.java:2264)
    at java.base/java.util.Scanner.nextInt(Scanner.java:2212)
    at Client.main(Client.java:18)
```

lavanya@lavanya:~/SEM 4/AJP/LAB/FACTORY/BANK\$ clear

lavanya@lavanya:~/SEM 4/AJP/LAB/FACTORY/BANK\$ java Client

Enter your name

Lavanya

Enter your accno

12365

Enter your current account balance

100000

Enter

1. TO DEPOSIT

2. TO WITHDRAW

Enter your choice

1

Enter the Amount to be deposited : 500000

Successful

Your Current Balance is 600000.0

lavanya@lavanya:~/SEM 4/AJP/LAB/FACTORY/BANK\$ java Client

Enter your name

Lavanya

Enter your accno

125469

Enter your current account balance

50000

Enter

1. TO DEPOSIT

2. TO WITHDRAW

Enter your choice

2

Enter the Amount to be Withdraw : 500

Withdrawal Successful

Your Current Balance is 49500.0

lavanya@lavanya:~/SEM 4/AJP/LAB/FACTORY/BANK\$