Lab#04

**Objective:** To get familiar with RMI CallBack.

**Task1:**Develop the RMI Callback application of Payroll and PayrollMessage services for calculating the earnings.

**Payrol Interface:**

import java.rmi.\*;

public interface PayRoll extends Remote{

public double earnings(int id, double hours) throws RemoteException;

}

**RemoteObject Class:**

import java.rmi.\*;

import java.rmi.server.\*;

public class PayRollImpl extends UnicastRemoteObject implements PayRoll{

public PayRollImpl() throws RemoteException{

System.out.println("PayRoll server remote object created");

}

public double earnings(int id, double hours) throws RemoteException{

PayRollMessage pm=null;

try{

pm =(PayRollMessage)Naming.lookup("rmi://localhost:1099/message");

}catch(Exception e){

e.printStackTrace();

}

pm.message("i am ready to sent the payroll amount");

return id\*hours;

}

}

**PayrolMessegeInterface:**

import java.rmi.\*;

public interface PayRollMessage extends Remote{

public void message(String msg) throws RemoteException;

}

**PayrolMessegeImpl:**

import java.rmi.\*;

import java.rmi.server.\*;

class PayRollMessageImpl extends UnicastRemoteObject implements PayRollMessage

{

public PayRollMessageImpl() throws RemoteException{

System.out.println("Client remote object created");

}

public void message(String str)throws RemoteException{

try{

System.out.println("Hello 16SW18 Suraj kumar. You have a Messege from server");

}catch(Exception e){

e.printStackTrace();

}

}

}

**Server Class:**

import java.rmi.\*;

import java.rmi.server.\*;

class ServerMainClass{

public static void main(String args[]){

try{

String ro = "rmi://localhost:1099/money";

PayRollImpl p = new PayRollImpl();

Naming.rebind(ro,p);

}catch(Exception e){

}

}

}

**Client Class:**

import java.rmi.\*;

class ClientMainClass{

public static void main(String args[]){

try{

Naming.rebind("rmi://localhost:1099/message",new PayRollMessageImpl());

System.out.println("Client object registered");

PayRoll p = (PayRoll)Naming.lookup("rmi://localhost:1099/money");

double earning = p.earnings(10,2.5);

System.out.println("Result from Earning: "+earning);

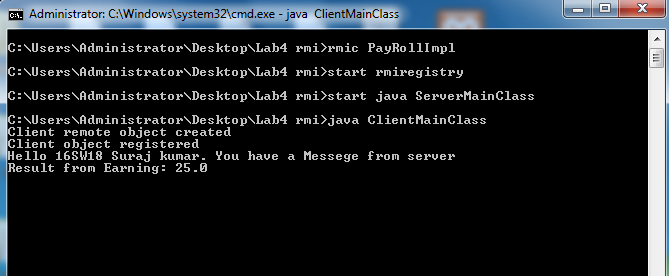
}catch(Exception e){

e.printStackTrace();

}

}}

**Output:**

****