Lab#05

**Objective:** To Become familiar with RMI object serialization.

**Task:** Develop any simple application to demonstrate object passing in RMI. (Expl: Make a class of your own and use its objects as arguments and return types for RMI)

**Serializable class:**

import java.io.\*;

class Student implements Serializable{

private int salary;

public int getSalary(){

return salary;

}

public void setSalary(int salary){

this.salary = salary;

}

}

**Interface:**

import java.rmi.\*;

public interface StudentDao extends Remote{

public Student showSalary(Student st)throws RemoteException;

}

**Remote Object class:**

import java.rmi.\*;

import java.rmi.server.\*;

public class StudentImpl extends UnicastRemoteObject implements StudentDao{

public StudentImpl()throws RemoteException{

super();

}

public synchronized Student showSalary(Student st)throws RemoteException{

return st;

}

}

**Server Class:**

import java.rmi.\*;

import java.rmi.registry.\*;

public class Server{

private static final int PORT=1099;

private static Registry registry;

public static void startRegistry()throws RemoteException{

registry=java.rmi.registry.LocateRegistry.createRegistry(PORT);

}

public static void registerObject(String name,Remote remoteObj)throws RemoteException,AlreadyBoundException{

registry.bind(name,remoteObj);

System.out.println("Registerd");

}

public static void main(String args[])throws Exception{

startRegistry();

registerObject(StudentDao.class.getSimpleName(),new StudentImpl());

}

}

**Client Class:**

import java.rmi.registry.\*;

public class Client{

private static final String HOST="localhost";

private static final int PORT=1099;

private static Registry registry;

public static void main(String args[])throws Exception{

registry=LocateRegistry.getRegistry(HOST,PORT);

StudentDao remoteStudent = (StudentDao) registry.lookup(StudentDao.class.getSimpleName());

Student st = new Student();

st.setSalary(7000);

remoteStudent.showSalary(st);

System.out.println("salary is:"+remoteStudent.showSalary(st).getSalary());

}

}

**Output:**

