Assignment 1B

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| **Batch** | P9 |
| **Problem Statement** | To develop any distributed application through implementing client-server  communication programs based on Java Sockets and RMI techniques. |

**Code**

**1. Calc.java**

**import** java.rmi.\*;

**public** **interface** Calc **extends** Remote{

**public** **double** calcpow(**int** x,**int** y)**throws** RemoteException;

}

**2. CalcRemote.java**

**import** java.rmi.\*;

**import** java.rmi.server.\*;

**public** **class** CalcRemote **extends** UnicastRemoteObject **implements** Calc{

CalcRemote()**throws** RemoteException{

**super**();

}

**public** **double** calcpow(**int** x,**int** y)

{

**return** Math.pow(x, y);

}

}

**3. Server.java**

**import** java.rmi.\*;

**import** java.rmi.server.\*;

**import** java.rmi.registry.\*;

**public** **class** Server **extends** CalcRemote {

**public** Server() **throws** RemoteException {}

**public** **static** **void** main(String[] args) {

**try**{

Calc stub=**new** CalcRemote();

Naming.rebind("rmi://localhost:5000/calculate",stub);

System.err.println("Server ready");

}

**catch**(Exception e){

System.out.println(e);

}

}

}

*//rmiregistry 5000*

**4. Client1.java**

**import** java.rmi.registry.\*;

**import** java.rmi.\*;

**import** java.rmi.server.\*;

**import** java.util.\*;

**public** **class** Client1{

**private** Client1()**throws** RemoteException {}

**public** **static** **void** main(String[] args) {

**try**{

Calc stub=(Calc)Naming.lookup("rmi://localhost:5000/calculate");

Scanner sc = **new** Scanner(System.in);

**int** a,b,choice;

**while**(**true**){

System.out.println("\nEnter your base and power");

System.out.println("Enter 1st number");

a = sc.nextInt();

System.out.println("Enter 2nd number");

b = sc.nextInt();

System.out.println("Result of "+a+" and "+b+" is "+stub.calcpow(a,b));

}

}

**catch**(Exception e){

System.out.println(e);

}

}

}

**5. Client2.java**

**import** java.rmi.registry.\*;

**import** java.rmi.\*;

**import** java.rmi.server.\*;

**import** java.util.\*;

**public** **class** Client2{

**private** Client2()**throws** RemoteException {}

**public** **static** **void** main(String[] args) {

**try**{

Calc stub=(Calc)Naming.lookup("rmi://localhost:5000/calculate");

Scanner sc = **new** Scanner(System.in);

**int** a,b,choice;

**while**(**true**){

System.out.println("\nEnter your base and power");

System.out.println("Enter 1st number");

a = sc.nextInt();

System.out.println("Enter 2nd number");

b = sc.nextInt();

System.out.println("Result of "+a+" and "+b+" is "+stub.calcpow(a,b));

}

}

**catch**(Exception e){

System.out.println(e);

}

}

}

**Output**

Run (Console) : $ rmiregistry

