Continuous Assessment – 03

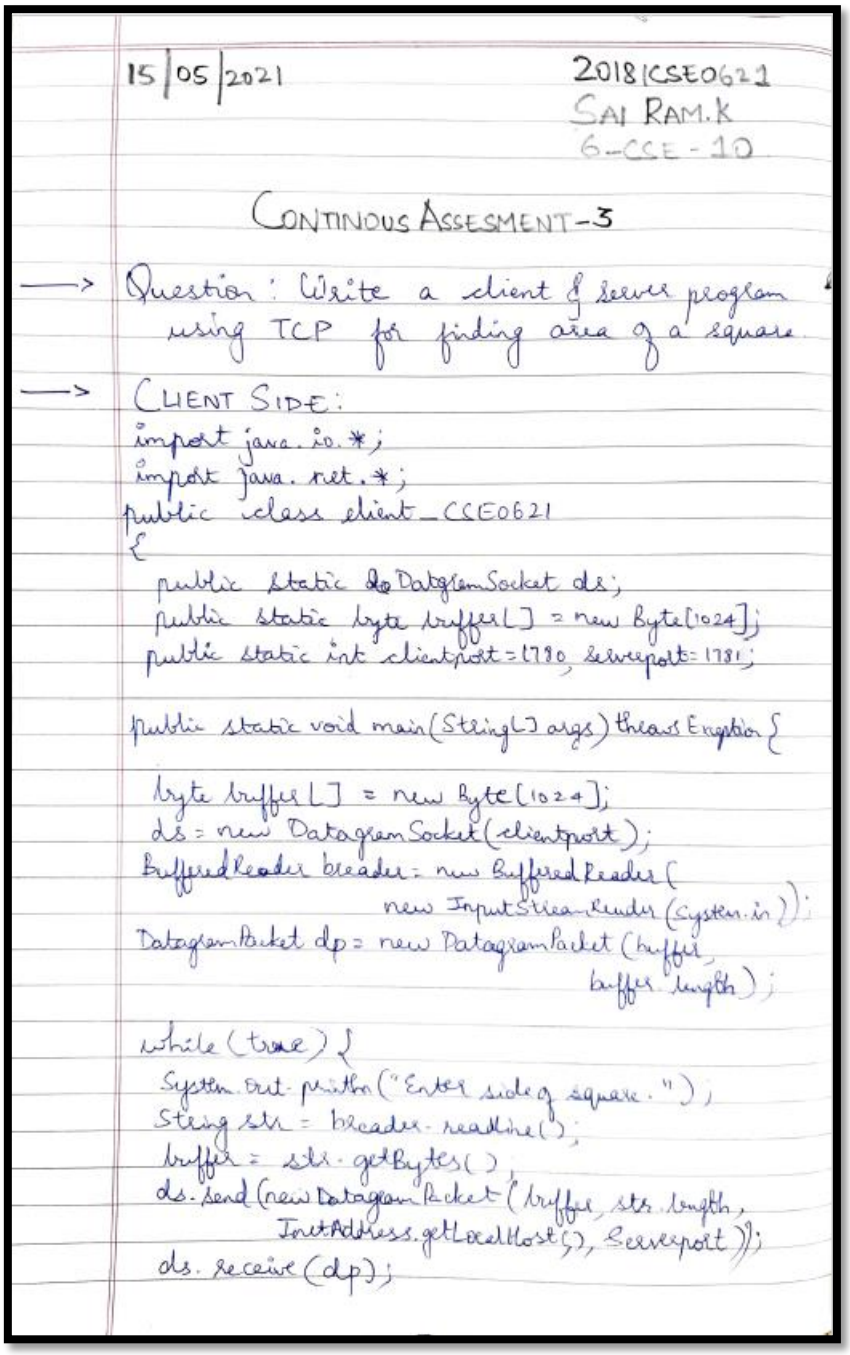
15 – 05 -2021

Sai Ram. K

20181CSE0621

6-CSE-10

Question: Write a client and server program using TCP for finding area of the square.



15/05/2021

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SAI RAM.K
6-CSE-10

CONTINOUS ASSESMENT-3

—> Question: Write a client & server program using TCP for finding area of a square

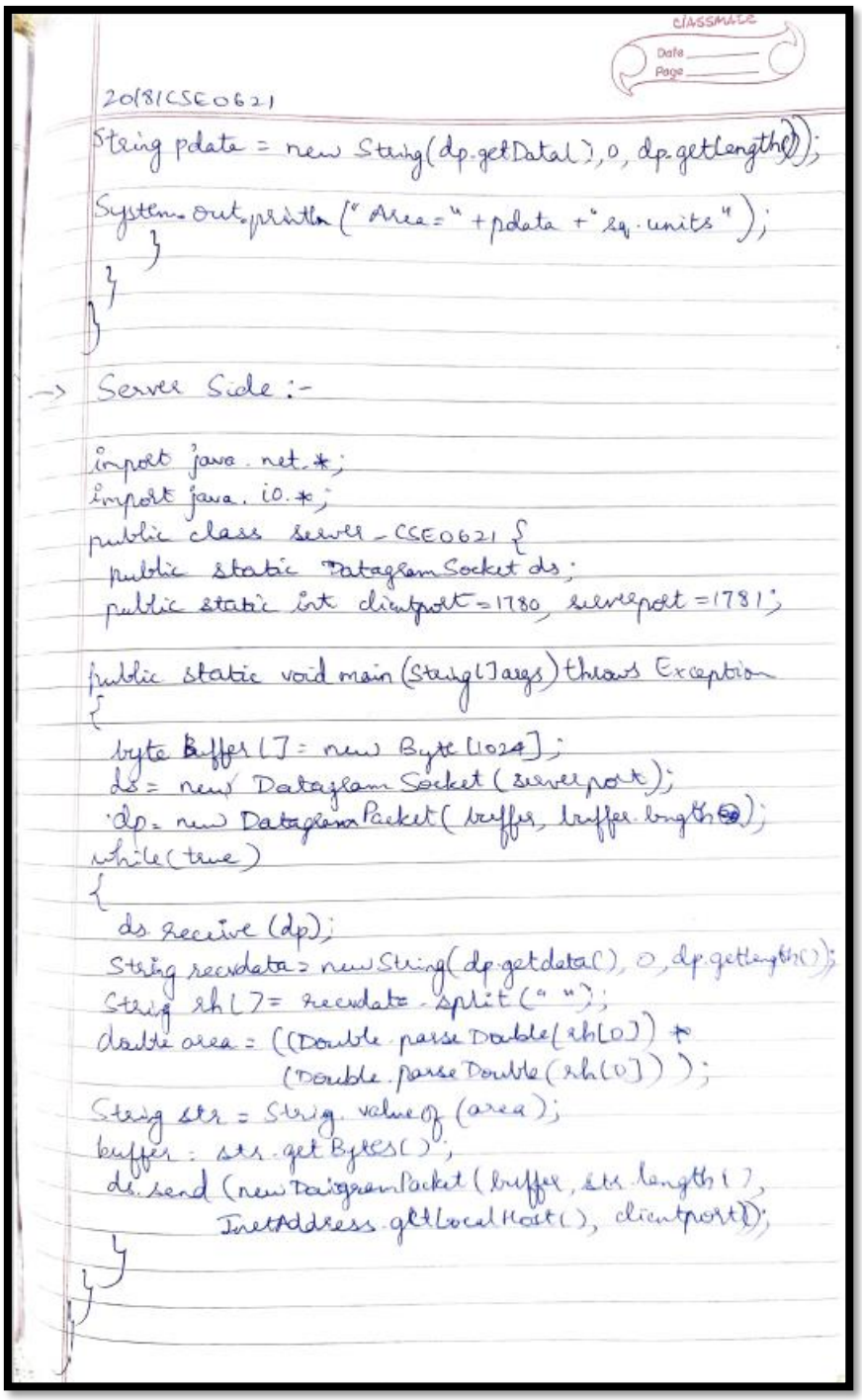
—> CLIENT SIDE:

```
import java.io.*;
import java.net.*;
public class client_CSE0621
{
  public static DatagramSocket ds;
  public static byte buffer[] = new Byte[1024];
  public static int clientport=1790, serverport=1781;

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

  byte buffer[] = new Byte[1024];
  ds = new DatagramSocket(clientport);
  BufferedReader breader = new BufferedReader(
                    new InputStreamReader(System.in));
  DatagramPacket dp = new DatagramPacket(buffer,
                                buffer.length);

  while(true) {
    System.out.println("Enter side of square.");
    String str = breader.readline();
    buffer = str.getBytes();
    ds.send(new DatagramPacket(buffer, str.length,
          InetAddress.getLocalHost(), serverport));
    ds.receive(dp);
```



20181CSE0621

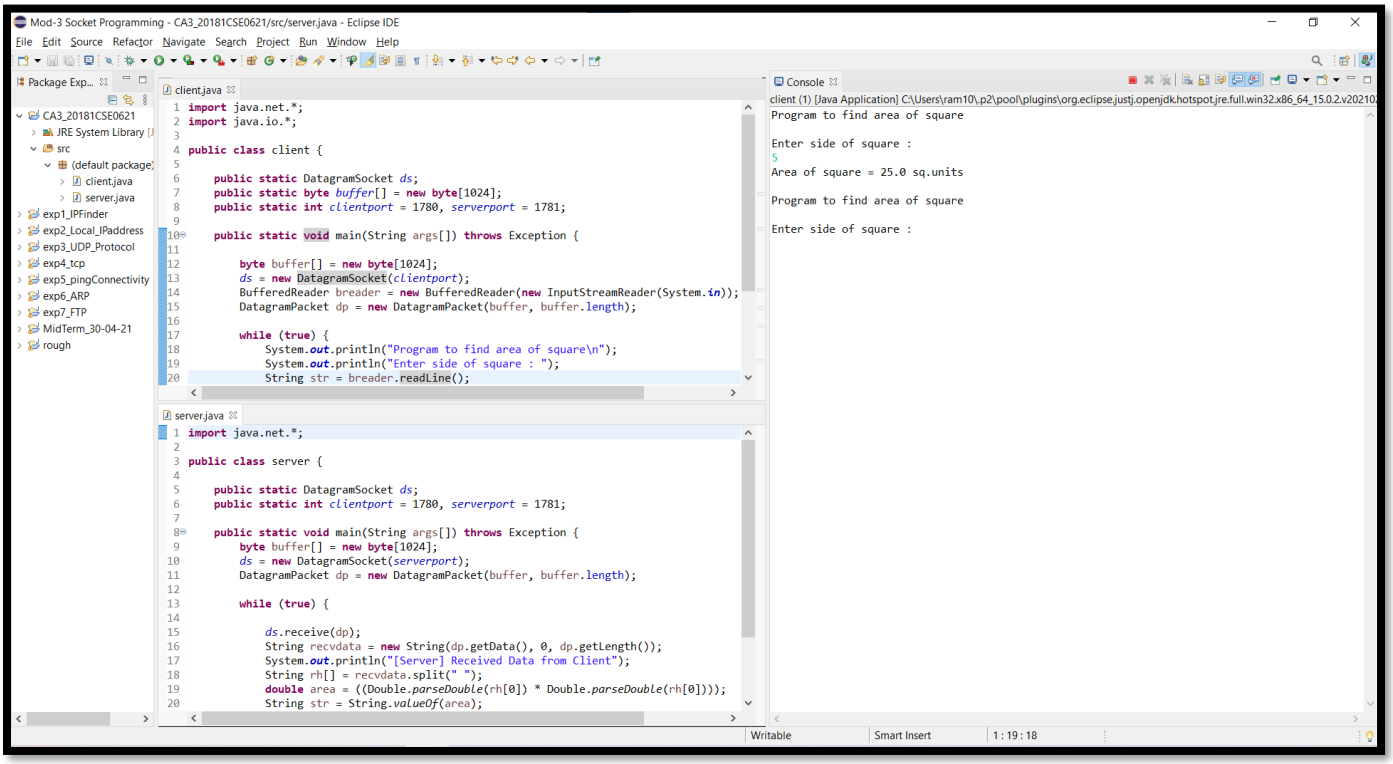
```
String pdata = new String(dp.getData(), 0, dp.getLength());
System.out.println("Area = " + pdata + " sq. units");
    }
}
}
```

-> Server Side :-

```
import java.net.*;
import java.io.*;
public class server_CSE0621 {
 public static DatagramSocket ds;
 public static int clientport = 1780, serverport = 1781;

public static void main(String[] args) throws Exception
{
 byte buffer[] = new Byte[1024];
 ds = new DatagramSocket(serverport);
 dp = new DatagramPacket(buffer, buffer.length);
while(true)
{
 ds.receive(dp);
 String recvdata = new String(dp.getdata(), 0, dp.getLength());
 String rh[] = recvdata.split(" ");
 double area = ((Double.parseDouble(rh[0]) *
          (Double.parseDouble(rh[0])));
 String str = String.valueOf(area);
 buffer = str.getBytes();
 ds.send(new DatagramPacket(buffer, str.length(),
          InetAddress.getLocalHost(), clientport));
}
}
}
```

OUTPUT


Mod-3 Socket Programming - CA3_20181CSE0621/src/server.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Package Exp...
CA3_20181CSE0621
JRE System Library
src
(default package)
client.java
server.java
exp1_IPFinder
exp2_Local_IPaddress
exp3_UDP_Protocol
exp4_tcp
exp5_pingConnectivity
exp6_ARP
exp7_FTP
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rough
client.java
import java.net.*;
import java.io.*;
public class client {
public static DatagramSocket ds;
public static byte buffer[] = new byte[1024];
public static int clientport = 1780, serverport = 1781;
public static void main(String args[]) throws Exception {
byte buffer[] = new byte[1024];
ds = new DatagramSocket(clientport);
BufferedReader breader = new BufferedReader(new InputStreamReader(System.in));
DatagramPacket dp = new DatagramPacket(buffer, buffer.length);
while (true) {
System.out.println("Program to find area of square\n");
System.out.println("Enter side of square : ");
String str = breader.readLine();
server.java
import java.net.*;
public class server {
public static DatagramSocket ds;
public static int clientport = 1780, serverport = 1781;
public static void main(String args[]) throws Exception {
byte buffer[] = new byte[1024];
ds = new DatagramSocket(serverport);
DatagramPacket dp = new DatagramPacket(buffer, buffer.length);
while (true) {
ds.receive(dp);
String recvdata = new String(dp.getData(), 0, dp.getLength());
System.out.println("[Server] Received Data from Client");
String rh[] = recvdata.split(" ");
double area = ((Double.parseDouble(rh[0]) * Double.parseDouble(rh[0])));
String str = String.valueOf(area);
Console
client (1) [Java Application] C:\Users\ram10\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_15.0.2.v20210
Program to find area of square
Enter side of square :
5
Area of square = 25.0 sq.units
Program to find area of square
Enter side of square :
Writable
Smart Insert
1 : 19 : 18

Server side :

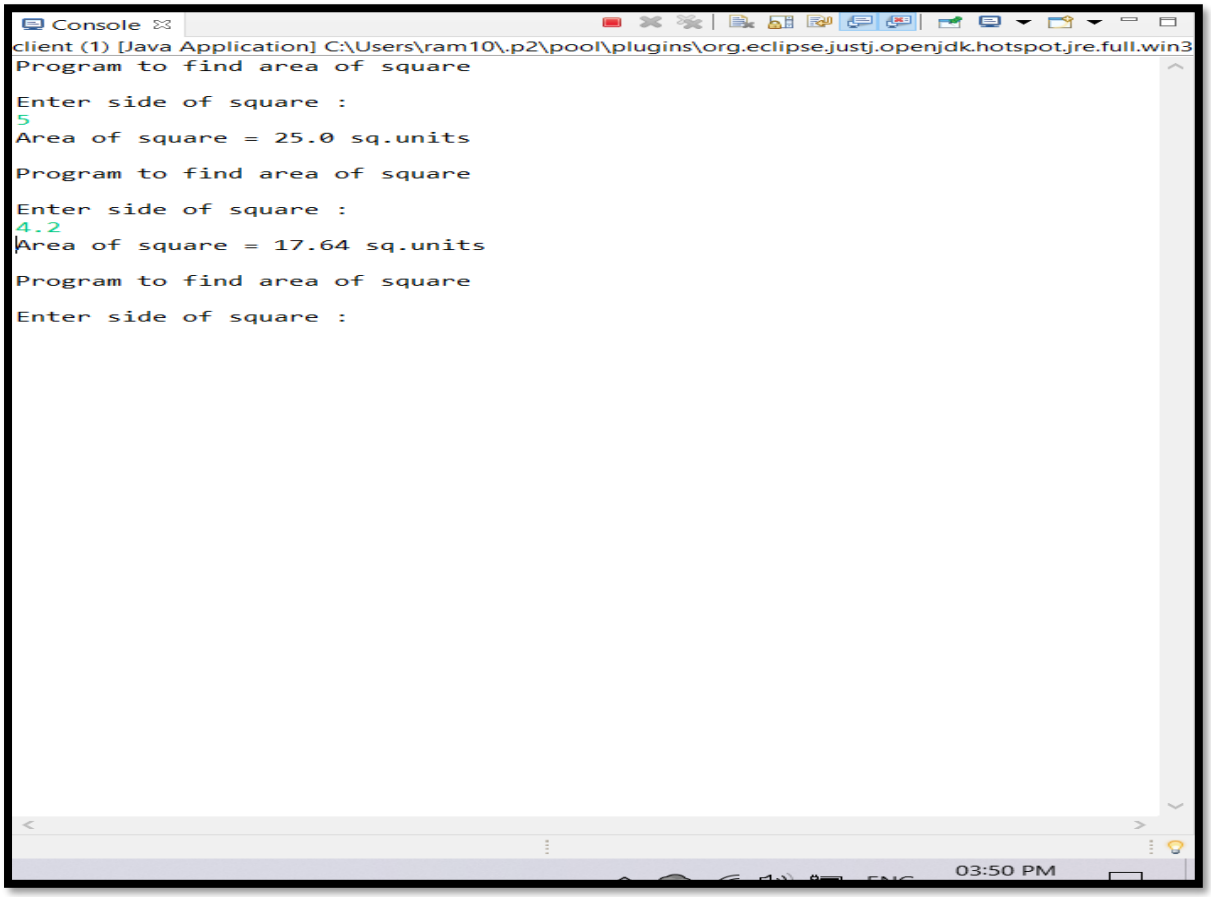
*server.java

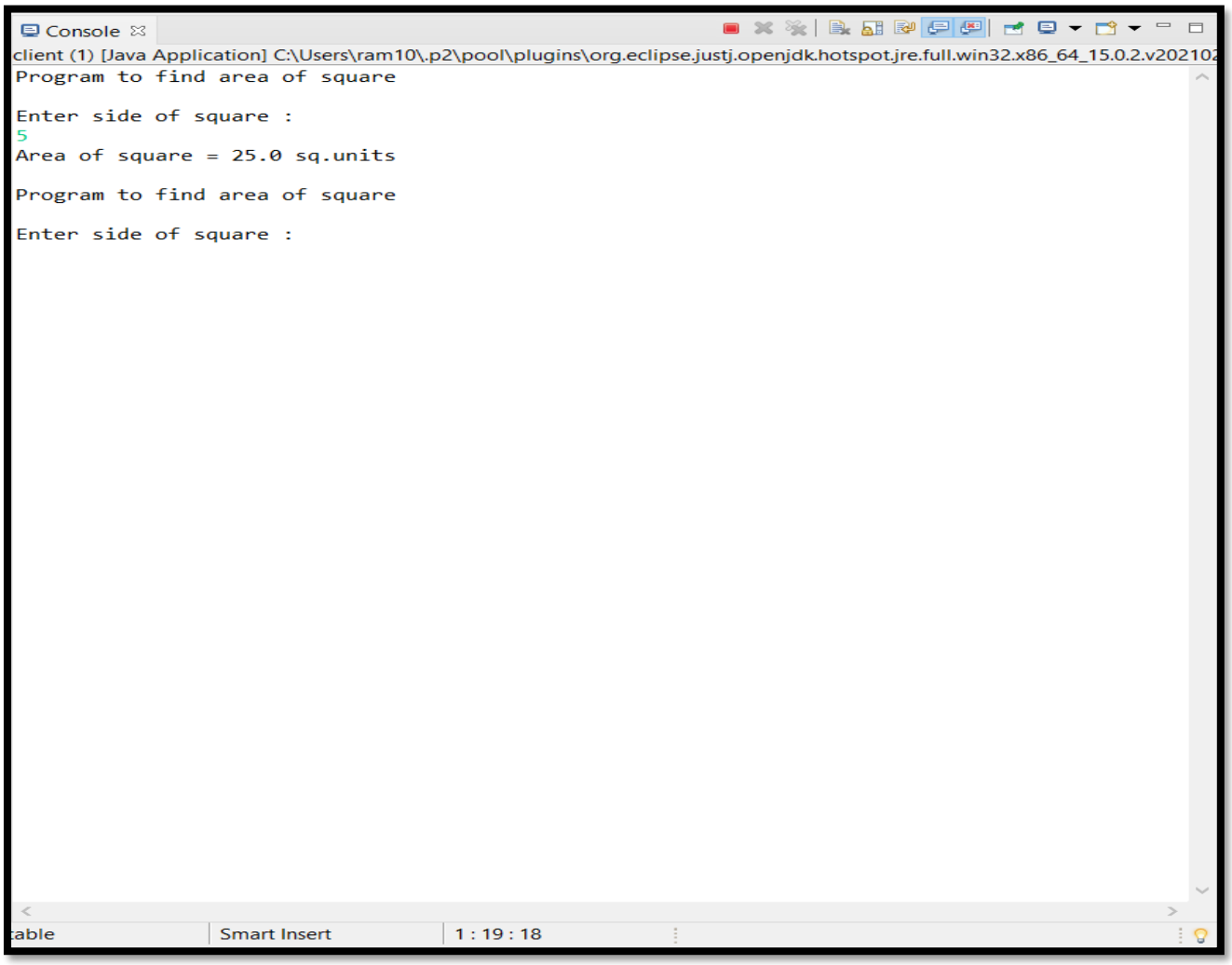
```java
import java.net.*;

public class server_CSE0621 {

    public static DatagramSocket ds;
    public static int clientport = 1780, serverport = 1781;

    public static void main(String args[]) throws Exception {
        byte buffer[] = new byte[1024];
        ds = new DatagramSocket(serverport);
        DatagramPacket dp = new DatagramPacket(buffer, buffer.length);

        while (true) {

            ds.receive(dp);
            String recvdata = new String(dp.getData(), 0, dp.getLength());
            System.out.println("[Server] Received Data from Client");
            String rh[] = recvdata.split(" ");
            double area = ((Double.parseDouble(rh[0]) * Double.parseDouble(rh[0])));
            String str = String.valueOf(area);
            buffer = str.getBytes();
            ds.send(new DatagramPacket(buffer, str.length(), InetAddress.getLocalHost(), clientport));
            System.out.println("[Server] Data sent to Client");
        }
    }
}
```

Client side :

*client.java

```java
import java.net.*;
import java.io.*;

public class client_CSE0621 {

    public static DatagramSocket ds;
    public static byte buffer[] = new byte[1024];
    public static int clientport = 1780, serverport = 1781;

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

        byte buffer[] = new byte[1024];
        ds = new DatagramSocket(clientport);
        BufferedReader breader = new BufferedReader(new InputStreamReader(System.in));
        DatagramPacket dp = new DatagramPacket(buffer, buffer.length);

        while (true) {
            System.out.println("Program to find area of square\n");
            System.out.println("Enter side of square : ");
            String str = breader.readLine();
            buffer = str.getBytes();
            ds.send(new DatagramPacket(buffer, str.length(), InetAddress.getLocalHost(), serverport));

            ds.receive(dp);
            String pdata = new String(dp.getData(), 0, dp.getLength());
            System.out.println("Area of square = " + pdata+" sq.units\n");
        }
    }
}
```


Console
client (1) [Java Application] C:\Users\ram10\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win3
Program to find area of square
Enter side of square :
5
Area of square = 25.0 sq.units
Program to find area of square
Enter side of square :
4.2
Area of square = 17.64 sq.units
Program to find area of square
Enter side of square :
03:50 PM


Console
client (1) [Java Application] C:\Users\ram10\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_15.0.2.v202102
Program to find area of square
Enter side of square :
5
Area of square = 25.0 sq.units
Program to find area of square
Enter side of square :
Smart Insert
1 : 19 : 18