

Assignment No 5
Sub : Distributed Systems

“Saved Three Files in Downloads”

1. MutualServer.java

2. ClientOne.java

3. ClientTwo.java

Code : MutualServer.java

```
import java.io.*;
import java.net.*;
public class ClientOne
{

public static void main(String args[])throws IOException
{
    Socket s=new Socket("localhost",7000);
    PrintStream out = new PrintStream(s.getOutputStream());
    ServerSocket ss = new ServerSocket(7001);
    Socket s1 = ss.accept();
    BufferedReader in1 = new BufferedReader(new
    InputStreamReader(s1.getInputStream()));
    PrintStream out1 = new PrintStream(s1.getOutputStream());
    BufferedReader br = new
    BufferedReader(new InputStreamReader(System.in));
    String str="Token";
    while(true)
    {
        if(str.equalsIgnoreCase("Token"))
        {
            System.out.println("Do you want to send some data");
            System.out.println("Enter Yes or No"); str=br.readLine();
            if(str.equalsIgnoreCase("Yes"))
            {
                System.out.println("Enter the data");
                str=br.readLine();
                out.println(str);
            }
            out1.println("Token");
        }
        System.out.println("Waiting for Token");
        str=in1.readLine();
    }
}
```

Code : ClientOne.java

```
import java.io.*;
import java.net.*;
public class ClientOne
```

```

{
public static void main(String args[])throws IOException
{
    Socket s=new Socket("localhost",7000);
    PrintStream out = new PrintStream(s.getOutputStream());
    ServerSocket ss = new ServerSocket(7001);
    Socket s1 = ss.accept();
    BufferedReader in1 = new BufferedReader(new
    InputStreamReader(s1.getInputStream()));
    PrintStream out1 = new PrintStream(s1.getOutputStream());
    BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
    String str="Token";
    while(true)
    {
        if(str.equalsIgnoreCase("Token"))
        {
            System.out.println("Do you want to send some data");
            System.out.println("Enter Yes or No");
            str=br.readLine();
            if(str.equalsIgnoreCase("Yes"))
            { System.out.println("Enter the data");
              str=br.readLine();
              out.println(str);
            }
            out1.println("Token");
        }
        System.out.println("Waiting for Token");
        str=in1.readLine();
    }
}
}

```

Code : ClientTwo.java

```

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

public class ClientTwo
{
    public static void main(String args[])throws IOException
    {
        Socket s=new Socket("localhost",7000);
        PrintStream out = new PrintStream(s.getOutputStream()); Socket
        s2=new Socket("localhost",7001); BufferedReader in2 = new
        BufferedReader(new InputStreamReader(s2.getInputStream()));
        PrintStream out2 = new PrintStream(s2.getOutputStream());
        BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
        String str;
        while(true)
        {
            System.out.println("Waiting for Token");
            str=in2.readLine();
            if(str.equalsIgnoreCase("Token"))
            {
                System.out.println("Do you want to send some data");
                System.out.println("Enter Yes or No"); str=br.readLine();
                if(str.equalsIgnoreCase("Yes")){
                    System.out.println("Enter the data"); str=br.readLine();
                }
            }
        }
    }
}

```

```

        out.println(str);    }
    out2.println("Token");
    }
}
}

```

Output :

Open 3 Different Terminals

In First terminal

it@IT-SWL-17:~/Downloads\$ javac MutualServer.java

it@IT-SWL-17:~/Downloads\$ java MutualServer

In Second Terminal

it@IT-SWL-17:~/Downloads\$ javac ClientOne.java

it@IT-SWL-17:~/Downloads\$ java ClientOne

In Third Terminal

it@IT-SWL-17:~/Downloads\$ javac ClientTwo.java

it@IT-SWL-17:~/Downloads\$ java ClientTwo

Go to **Second** terminal

Do you want to send some data

Enter Yes or No

Yes

Enter the data

30

Waiting for Token

5

Go to **Third** terminal

Waiting for Token

Do you want to send some data

Enter Yes or No

Yes

Enter the data

20

Go to **First** Terminal

Server Started

30

20
