**ASSIGNMENT NO.:**

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**CLASS** : T.E. COMP-I

**ROLL NO.** : 302006

**PROGRAM:**

**//---------------Single server single client-------------------//**

**//server**

import java.net.\*;

import java.io.\*;

public class s

{

public static void main(String args[]) throws IOException

{

// Register service on port 1234

ServerSocket s = new ServerSocket(1234);

Socket s1=s.accept(); // Wait and accept a connection

// Get a communication stream associated with the socket

OutputStream s1out = s1.getOutputStream();

DataOutputStream dos = new DataOutputStream (s1out);

// Send a string!

dos.writeUTF("Hi there");

// Close the connection, but not the server socket

dos.close();

s1out.close();

s1.close();

}

}

**//client**

import java.net.\*;

import java.io.\*;

public class c

{

public static void main(String args[]) throws IOException

{

// Open your connection to a server, at port 1234

Socket s1 = new Socket("localhost",1234);

// Get an input file handle from the socket and read the input

InputStream s1In = s1.getInputStream();

DataInputStream dis = new DataInputStream(s1In);

String st = new String (dis.readUTF());

System.out.println(st);

// When done, just close the connection and exit

dis.close();

s1In.close();

s1.close();

}

}

**//---------------Single server multiple clients-------------------//**

**//server**

import java.net.\*;

import java.io.\*;

public class s1 extends Thread

{

ServerSocket s;

public s1()

{

try

{

s = new ServerSocket(1234);

System.out.println("socket created");

}

catch(Exception e){}

this.start();

}

public void run()

{

while(true)

{

try

{

Socket ss=s.accept();

connection con=new connection(ss);

System.out.println("connection established");

}

catch(Exception e){}

}

}

public static void main(String args[]) throws IOException

{

new s1();

}

}

class connection extends Thread

{

DataInputStream dis;

public connection(Socket ss)

{

try

{

InputStream s1In = ss.getInputStream();

dis = new DataInputStream(s1In);

}

catch(Exception e){}

this.start();

}

public void run()

{

while(true)

{

try

{

String st = new String (dis.readUTF());

System.out.println(st);

}

catch(Exception e){}

}

}

}

**//client**

import java.net.\*;

import java.io.\*;

public class c1

{

public static void main(String args[]) throws IOException

{

// Open your connection to a server, at port 1234

Socket s1 = new Socket("localhost",1234);

// Get an input file handle from the socket and read the input

OutputStream s1out = s1.getOutputStream();

DataOutputStream dis = new DataOutputStream(s1out);

//BufferedReader br=new BufferedReader(new InputStreamReader(s.getInputStream));

BufferedReader b=new BufferedReader(new InputStreamReader(System.in));

while(true)

{

String str=b.readLine();

dis.writeUTF(str);

}

// When done, just close the connection and exit

//dis.close();

//s1In.close();

//s1.close();

}

}

**//---------------Single client multiple servers-------------------//**

**//server1**

import java.net.\*;

import java.io.\*;

public class s1 extends Thread

{

ServerSocket s;

public s1()

{

try

{

s = new ServerSocket(1234);

System.out.println("socket1 created");

}

catch(Exception e){}

this.start();

}

public void run()

{

while(true)

{

try

{

Socket ss=s.accept();

connection con=new connection(ss);

System.out.println("connection established");

}

catch(Exception e){}

}

}

public static void main(String args[]) throws IOException

{

new s1();

}

}

class connection extends Thread

{

DataInputStream dis;

public connection(Socket ss)

{

try

{

InputStream s1In = ss.getInputStream();

dis = new DataInputStream(s1In);

}

catch(Exception e){}

this.start();

}

public void run()

{

while(true)

{

try

{

String st = new String (dis.readUTF());

System.out.println(st);

}

catch(Exception e){}

}

}

}

**//server2**

import java.net.\*;

import java.io.\*;

public class s2 extends Thread

{

ServerSocket s;

public s2()

{

try

{

s = new ServerSocket(1239);

System.out.println("socket2 created");

}

catch(Exception e){}

this.start();

}

public void run()

{

while(true)

{

try

{

Socket ss=s.accept();

connection con=new connection(ss);

System.out.println("connection established");

}

catch(Exception e){}

}

}

public static void main(String args[]) throws IOException

{

new s2();

}

}

class connection extends Thread

{

DataInputStream dis;

public connection(Socket ss)

{

try

{

InputStream s1In = ss.getInputStream();

dis = new DataInputStream(s1In);

}

catch(Exception e){}

this.start();

}

public void run()

{

while(true)

{

try

{

String st = new String (dis.readUTF());

System.out.println(st);

}

catch(Exception e){}

}

}

}

**//client**

import java.net.\*;

import java.io.\*;

public class c1

{

public static void main(String args[]) throws IOException

{

// Open your connection to a server, at port 1234

Socket s1 = new Socket("localhost",1234);

Socket s2 = new Socket("localhost",1239);

// Get an input file handle from the socket and read the input

OutputStream s1out = s1.getOutputStream();

DataOutputStream dis1 = new DataOutputStream(s1out);

OutputStream s2out = s2.getOutputStream();

DataOutputStream dis2 = new DataOutputStream(s2out);

//BufferedReader br=new BufferedReader(new InputStreamReader(s.getInputStream));

BufferedReader b=new BufferedReader(new InputStreamReader(System.in));

while(true)

{

String str=b.readLine();

dis1.writeUTF(str);

dis2.writeUTF(str);

}

// When done, just close the connection and exit

//dis.close();

//s1In.close();

//s1.close();

}

}