**Practical 1.8**

**Aim:**

Implementany one sorting algorithm using TCP/UDP on Server application and give Input On Client side and client should sorted output from server and display sorted on input side.

**PROGRAM CODE:**

**//TCP Client:-**

import java.io.\*;

import java.net.\*;

import java.util.\*;

public class sortclient {

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

String serverHostname = new String ("127.0.0.1");

if (args.length > 0)

serverHostname = args[0];

System.out.println ("Attemping to connect to host " +

serverHostname + " on port 10007.");

System.out.println("Eno=130050131524");

Socket echoSocket = null;

PrintWriter out = null;

BufferedReader in = null;

try {

// echoSocket = new Socket("taranis", 7);

echoSocket = new Socket(serverHostname, 10007);

out = new PrintWriter(echoSocket.getOutputStream(), true);

in = new BufferedReader(new InputStreamReader(

echoSocket.getInputStream()));

}

catch (UnknownHostException e) {

System.err.println("Don't know about host: " + serverHostname);

System.exit(1);

}

catch (IOException e) {

System.err.println("Couldn't get I/O for " + "the connection to: " + serverHostname);

System.exit(1);

}

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

String userInput;

int n;

System.out.println("how many numbers to be sorted");

n=Integer.parseInt(stdIn.readLine());

out.println(""+n);

int i=0;

int[] list=new int[n];

while (i<n) {

System.out.println("enter number"+(i+1)+":");

userInput=stdIn.readLine();

out.println(userInput);

i++;

}

i=0;

System.out.println("sorted numbers:");

while (i<n){

System.out.println(in.readLine());

i++;

}

out.close();

in.close();

stdIn.close();

echoSocket.close();

}

}

**//TCP Server**

import java.net.\*;

import java.io.\*;

public class sortserver

{

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

{

ServerSocket serverSocket = null;

try {

serverSocket = new ServerSocket(10007);

}

catch (IOException e)

{

System.err.println("Could not listen on port: 10007.");

System.exit(1);

}

Socket clientSocket = null;

System.out.println ("Waiting for connection.....");

try {

clientSocket = serverSocket.accept();

}

catch (IOException e)

{

System.err.println("Accept failed.");

System.exit(1);

}

System.out.println ("Connection successful");

System.out.println ("Waiting for input.....");

System.out.println("E\_no=130050131524");

PrintWriter out = new PrintWriter(clientSocket.getOutputStream(), true);

BufferedReader in = new BufferedReader(new InputStreamReader(clientSocket.getInputStream()));

String inputLine;

inputLine = in.readLine();

int n=Integer.parseInt(inputLine);

int[] a=new int[n];

System.out.println("number of inputs:");

int i=0;

System.out.println("input:");

while (i<n){

inputLine = in.readLine();

a[i]=Integer.parseInt(inputLine);

System.out.println(a[i]);

i++;

}

for(int j=0;j<n;j++){

for(int k=j+1;k<n;k++){

if(a[j]>a[k]){

int temp=a[j];

a[j]=a[k];

a[k]=temp;

}

}

}

i=0;

while (i<n){

out.println(""+a[i]);

i++;

}

out.close();

in.close();

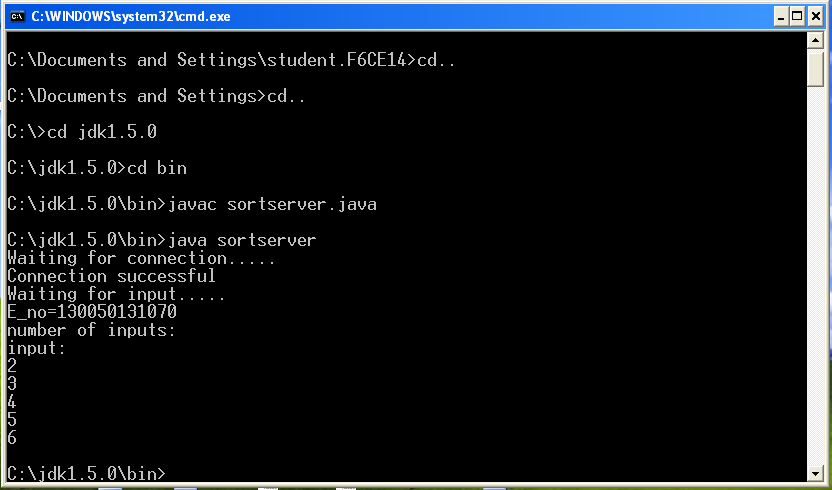
clientSocket.close();

serverSocket.close();

**}**

**}**

**Input Output:**

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