Ngày báo cáo: 26/10/2020

Lab báo cáo: 4

Mã sinh viên:

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**NỘI DUNG**

**Câu 1:**

Viết chương trình theo mô hình Client-Server sử dụng Socket ở chế độ có kết nối. Trong đó:

+ Server làm nhiệm vụ đọc một ký tự số từ 0 đến 100

(Ví dụ: nhận số 0: trả về “không”, 1: trả về: “một”,….)

+ Client sẽ nhập vào 1 ký tự, gửi qua Server, nhận kết quả trả về từ Server và hiện lên màn hình.

Code:

Server

**package** doc;

**import** java.io.IOException;

**import** java.io.PrintStream;

**import** java.net.ServerSocket;

**import** java.net.Socket;

**import** java.util.Scanner;

**public** **class** Server{

**public** **static** String ReadNum(String x) {

String rd;

**if**(x.matches("[0-9]+")){

**int** n = Integer.*parseInt*(x);

**if**(n <= 100) {

String chuc = "",dv = "";

**int** mod = n%10;

**int** div = n/10;

**switch**(div) {

**case** 2:{ dv = "hai"; **break**; }

**case** 3:{ dv = "ba"; **break**; }

**case** 4:{ dv = "bon"; **break**; }

**case** 5:{ dv = "nam"; **break**; }

**case** 6:{ dv = "sau"; **break**; }

**case** 7:{ dv = "bay"; **break**; }

**case** 8:{ dv = "tam"; **break**; }

**case** 9:{ dv = "chin"; **break**; }

}

**switch**(mod) {

**case** 1:{ chuc = "mot"; **break**; }

**case** 2:{ chuc = "hai"; **break**; }

**case** 3:{ chuc = "ba"; **break**; }

**case** 4:{ chuc = "bon"; **break**; }

**case** 5:{ chuc = "lam"; **break**; }

**case** 6:{ chuc = "sau"; **break**; }

**case** 7:{ chuc = "bay"; **break**; }

**case** 8:{ chuc = "tam"; **break**; }

**case** 9:{ chuc = "chin"; **break**; }

}

**if**(n < 10) {

**if**(n == 0) {rd = "khong";}

**else** **if**(n == 5) {rd = "nam";}

**else** {rd = chuc;}

}

**else** {

**if**(n == 10) rd = "muoi";

**else** **if**(n == 100) rd = "mot tram";

**else**

rd = dv + " muoi " + chuc;

}

}

**else** {

rd = "The data is a number greater than 100. you must enter less than 100";

}

}

**else** {

rd = "Data isn't number";

}

**return** rd;

}

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

**try** {

@SuppressWarnings("resource")

ServerSocket server = **new** ServerSocket(9540);

System.***out***.println("Server da duoc tao");

Socket client = server.accept();

System.***out***.println("Client da ket noi den server");

Scanner inFromClient = **new** Scanner(client.getInputStream());

PrintStream outToClient = **new** PrintStream(client.getOutputStream());

outToClient.println("Nhap so :");

String txt = inFromClient.nextLine();

outToClient.println("Result : " + *ReadNum*(txt));

} **catch** (IOException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

}

}

Client

**package** doc;

**import** java.io.IOException;

**import** java.io.PrintStream;

**import** java.net.Socket;

**import** java.net.UnknownHostException;

**import** java.util.Scanner;

**public** **class** Client {

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

**try** {

@SuppressWarnings("resource")

Socket client = **new** Socket("LocalHost", 9540);

System.***out***.println("Client da duoc tao");

Scanner inFromServer = **new** Scanner(client.getInputStream());

PrintStream outToServer = **new** PrintStream(client.getOutputStream());

System.***out***.println("server: " + inFromServer.nextLine());

System.***out***.print(">>> ");

@SuppressWarnings("resource")

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

String ten = scan.nextLine();

outToServer.println(ten);

System.***out***.println("server: " + inFromServer.nextLine());

} **catch** (UnknownHostException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

} **catch** (IOException e) {

// **TODO** Auto-generated catch block

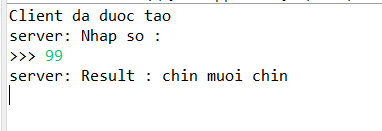
e.printStackTrace();

}

}

}

Kết quả:



**Câu 2:**

Viết ứng dụng Chat đơn giản sử dụng Socket TCP

Yêu cầu:

* Xây dụng Server có thể lắng nghe kết nối từ Client.
* Client sau khi kết nối thành công với Server có thể gắn với tin nhắn (text) qua lại với Server.

Code:

Sever:

**package** chat;

**import** java.io.IOException;

**import** java.io.PrintStream;

**import** java.net.ServerSocket;

**import** java.net.Socket;

**import** java.util.Scanner;

**public** **class** Server {

**private** **static** Scanner *scan*;

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

**try** {

@SuppressWarnings("resource")

ServerSocket server = **new** ServerSocket(9540);

System.***out***.println("Server da duoc tao");

Socket client = server.accept();

System.***out***.println("Client da ket noi den server");

PrintStream outToClient = **new** PrintStream(client.getOutputStream());

outToClient.println("Hello");

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

String obj = "exit";

Scanner inFromClient = **new** Scanner(client.getInputStream());

outToClient = **new** PrintStream(client.getOutputStream());

String text = inFromClient.nextLine();

System.***out***.println("client: " + text);

**if**(text.equals(obj)) {

**break**;

}

System.***out***.print(">>>");

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

String txt = *scan*.nextLine();

outToClient.println(txt);

**if**(txt.equals(obj)) {

**break**;

}

}

outToClient.println("close connect");

System.***out***.println("close connect");

} **catch** (IOException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

}

}

Client:

**package** chat;

**import** java.io.IOException;

**import** java.io.PrintStream;

**import** java.net.Socket;

**import** java.net.UnknownHostException;

**import** java.util.Scanner;

**public** **class** Client {

**private** **static** Scanner *inFromServer*;

**private** **static** Scanner *scan*;

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

**try** {

@SuppressWarnings("resource")

Socket client = **new** Socket("LocalHost", 9540);

System.***out***.println("Client da duoc tao");

*inFromServer* = **new** Scanner(client.getInputStream());

PrintStream outToServer = **new** PrintStream(client.getOutputStream());

System.***out***.println("server: " + *inFromServer*.nextLine());

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

System.***out***.print(">>>");

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

String text = *scan*.nextLine();

outToServer.println(text);

String txt = *inFromServer*.nextLine();

System.***out***.println("server: " + txt);

**if**(text.equals("exit")) {

**break**;

}

**if**(txt.equals("exit")) {

System.***out***.println("server: " + *inFromServer*.nextLine());

**break**;

}

}

} **catch** (UnknownHostException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

} **catch** (IOException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

}

}

Kết quả:

