PEMROGRAMAN JARINGAN KOMPUTER

TUGAS 13

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OLEH:

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MI – 3A

D3 MANAJEMEN INFORMATIKA

TEKNOLOGI INFORMASI

POLITEKNIK NEGERI MALANG

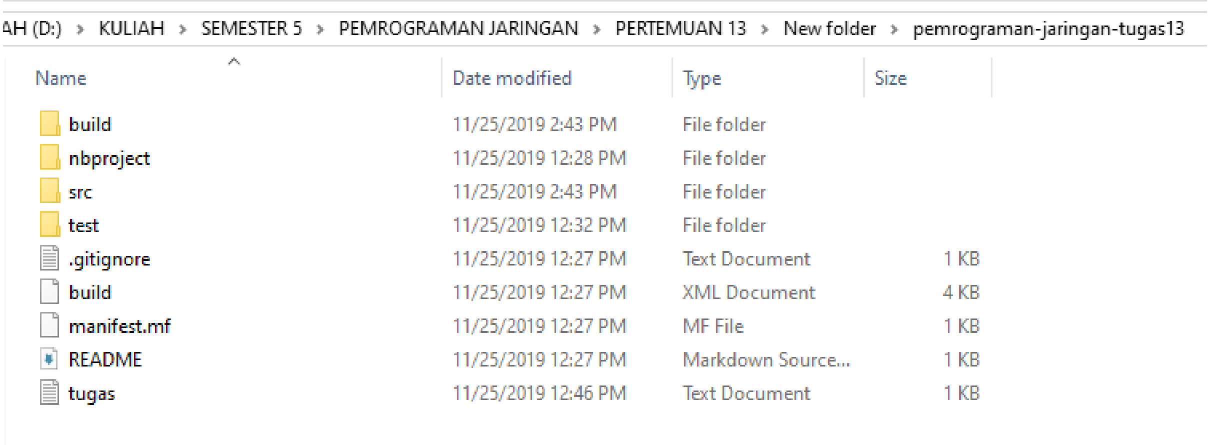
2019

TUGAS

1. Modifikasi program di atas sehingga tidak hanya mengirimkan data text, tetapi juga bisa mengirimkan sebuah file.

   Jawaban :

   Pada praktikum ini file yang dikirim adalah “tugas.txt”

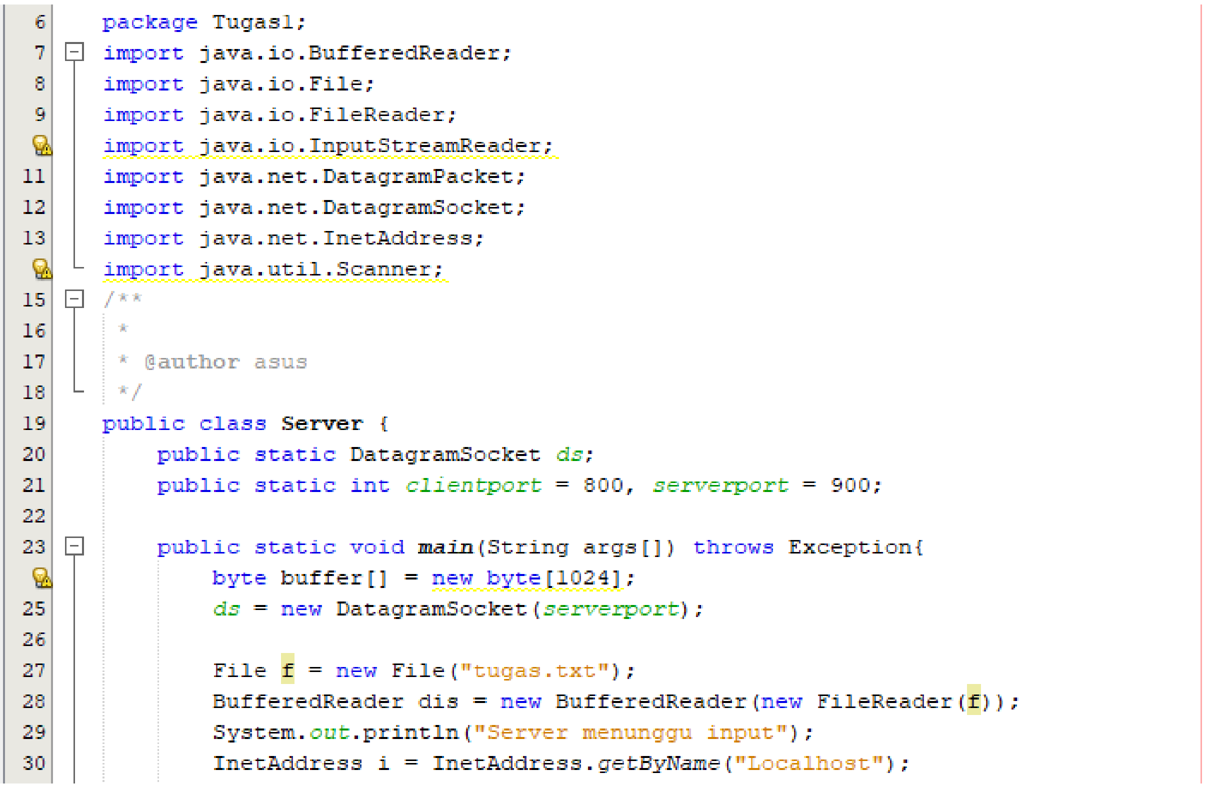


AH (D:) › KULIAH › SEMESTER 5 › PEMROGRAMAN JARINGAN › PERTEMUAN 13 › New folder › pemrograman-jaringan-tugas13

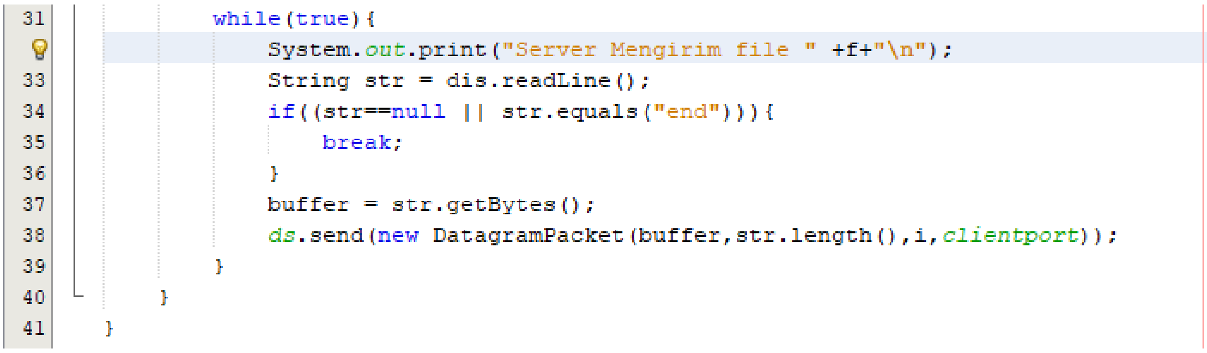
Name	Date modified	Type	Size
build	11/25/2019 2:43 PM	File folder	
nbproject	11/25/2019 12:28 PM	File folder	
src	11/25/2019 2:43 PM	File folder	
test	11/25/2019 12:32 PM	File folder	
.gitignore	11/25/2019 12:27 PM	Text Document	1 KB
build	11/25/2019 12:27 PM	XML Document	4 KB
manifest.mf	11/25/2019 12:27 PM	MF File	1 KB
README	11/25/2019 12:27 PM	Markdown Source...	1 KB
tugas	11/25/2019 12:46 PM	Text Document	1 KB

Code Tugas1

Server

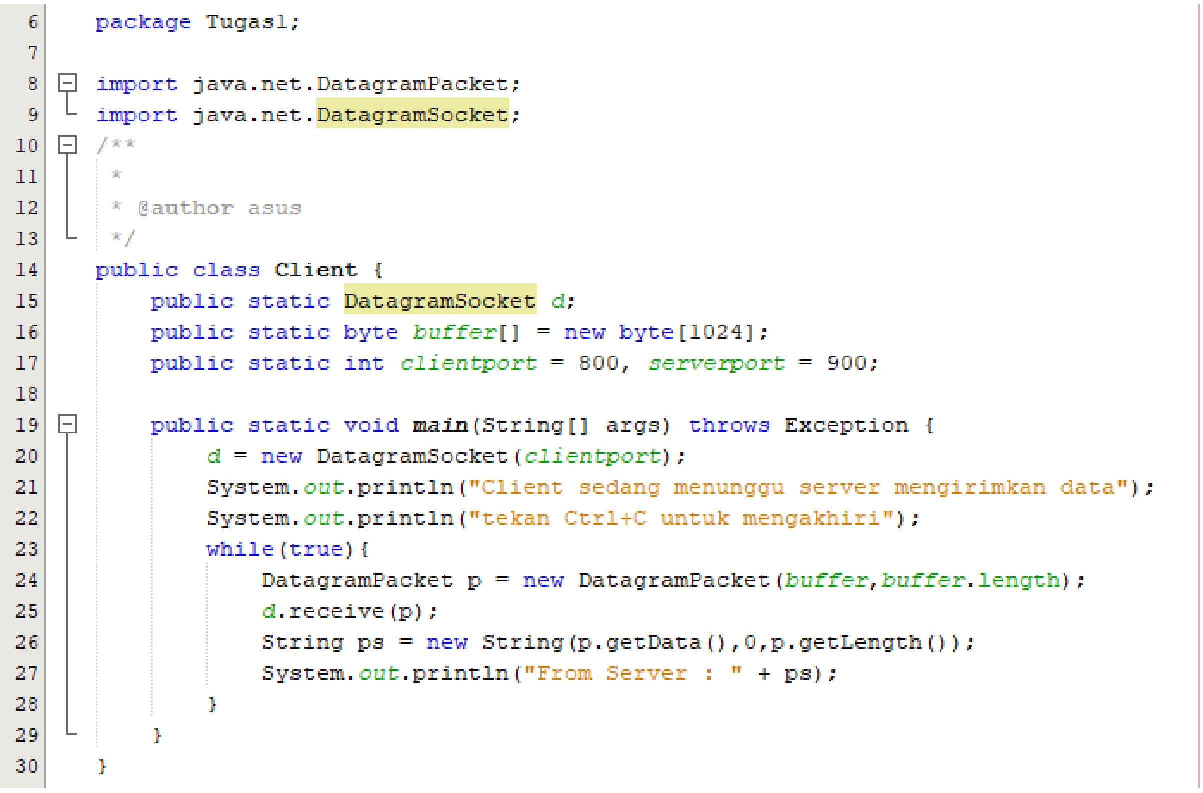


```
package Tugas1;
import java.io.BufferedReader;
import java.io.File;
import java.io.FileReader;
import java.io.InputStreamReader;
import java.net.DatagramPacket;
import java.net.DatagramSocket;
import java.net.InetAddress;
import java.util.Scanner;
/**
 *
 * @author asus
 */
public class Server {
    public static DatagramSocket ds;
    public static int clientport = 800, serverport = 900;

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

        File f = new File("tugas.txt");
        BufferedReader dis = new BufferedReader(new FileReader(f));
        System.out.println("Server menunggu input");
        InetAddress i = InetAddress.getByName("Localhost");
```



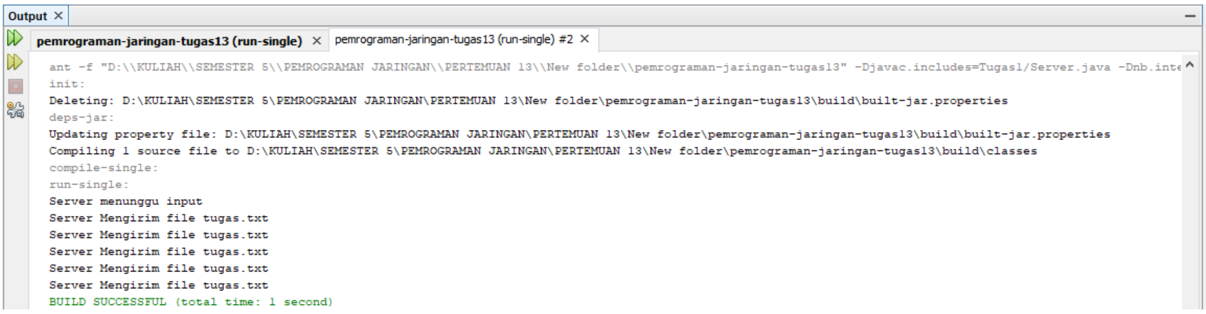
```java
        while(true){
            System.out.print("Server Mengirim file " +f+"\n");
            String str = dis.readLine();
            if((str==null || str.equals("end"))){
                break;
            }
            buffer = str.getBytes();
            ds.send(new DatagramPacket(buffer,str.length(),i,clientport));
        }
    }
}
```

Client



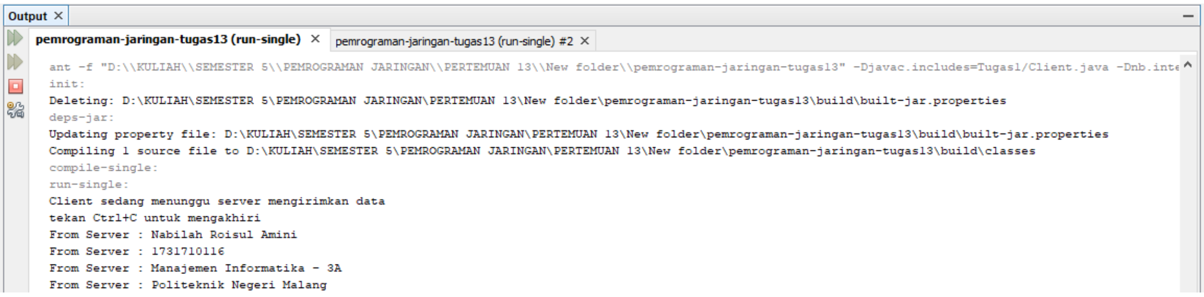
```java
package Tugas1;

import java.net.DatagramPacket;
import java.net.DatagramSocket;
/**
 *
 * @author asus
 */
public class Client {
    public static DatagramSocket d;
    public static byte buffer[] = new byte[1024];
    public static int clientport = 800, serverport = 900;

    public static void main(String[] args) throws Exception {
        d = new DatagramSocket(clientport);
        System.out.println("Client sedang menunggu server mengirimkan data");
        System.out.println("tekan Ctrl+C untuk mengakhiri");
        while(true){
            DatagramPacket p = new DatagramPacket(buffer,buffer.length);
            d.receive(p);
            String ps = new String(p.getData(),0,p.getLength());
            System.out.println("From Server : " + ps);
        }
    }
}
```

Output



Output
pemrograman-jaringan-tugas13 (run-single)
pemrograman-jaringan-tugas13 (run-single) #2

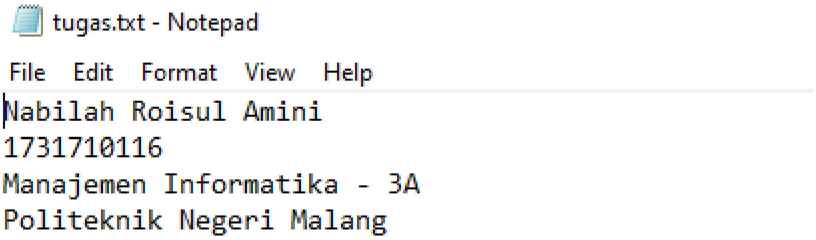
```
ant -f "D:\\KULIAH\\SEMESTER 5\\PEMROGRAMAN JARINGAN\\PERTEMUAN 13\\New folder\\pemrograman-jaringan-tugas13" -Djavac.includes=Tugas1/Server.java -Dnb.inte
init:
Deleting: D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\built-jar.properties
deps-jar:
Updating property file: D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\built-jar.properties
Compiling 1 source file to D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\classes
compile-single:
run-single:
Server menunggu input
Server Mengirim file tugas.txt
Server Mengirim file tugas.txt
Server Mengirim file tugas.txt
Server Mengirim file tugas.txt
Server Mengirim file tugas.txt
BUILD SUCCESSFUL (total time: 1 second)
```



Output
pemrograman-jaringan-tugas13 (run-single)
pemrograman-jaringan-tugas13 (run-single) #2

```
ant -f "D:\\KULIAH\\SEMESTER 5\\PEMROGRAMAN JARINGAN\\PERTEMUAN 13\\New folder\\pemrograman-jaringan-tugas13" -Djavac.includes=Tugas1/Client.java -Dnb.inte
init:
Deleting: D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\built-jar.properties
deps-jar:
Updating property file: D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\built-jar.properties
Compiling 1 source file to D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\classes
compile-single:
run-single:
Client sedang menunggu server mengirimkan data
tekan Ctrl+C untuk mengakhiri
From Server : Nabilah Roisul Amini
From Server : 1731710116
From Server : Manajemen Informatika - 3A
From Server : Politeknik Negeri Malang
```

File tugas.txt



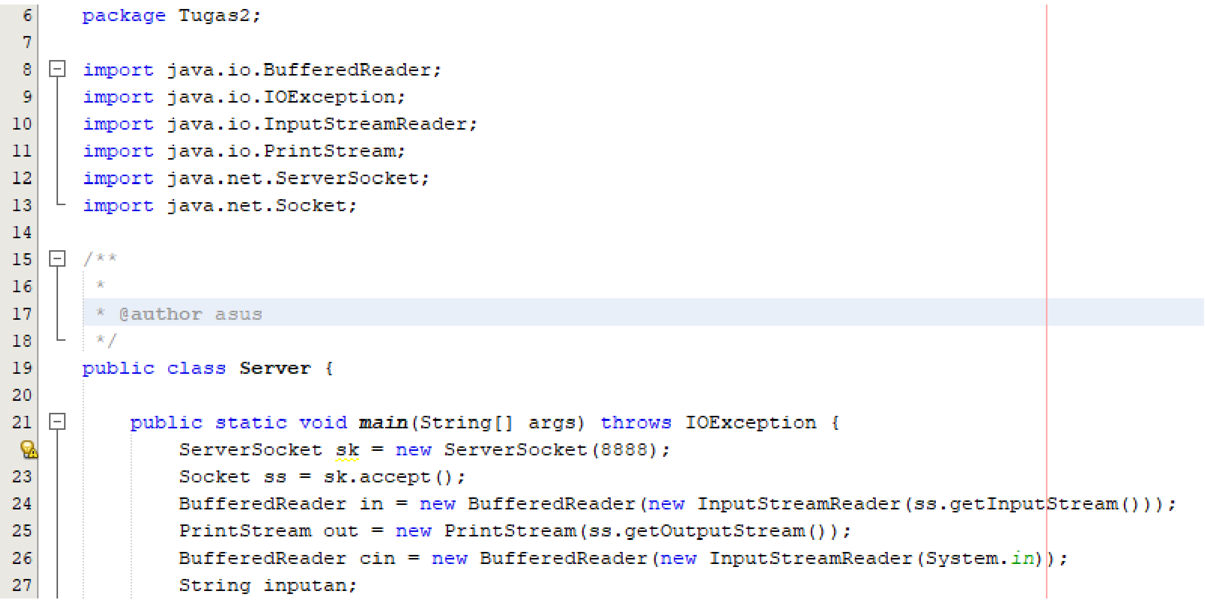
```
Nabilah Roisul Amini
1731710116
Manajemen Informatika - 3A
Politeknik Negeri Malang
```

2. Modifikasilah program diatas agar menjadi program yang dapat digunakan untuk saling mengirim pesan menggunakan 2 komputer.

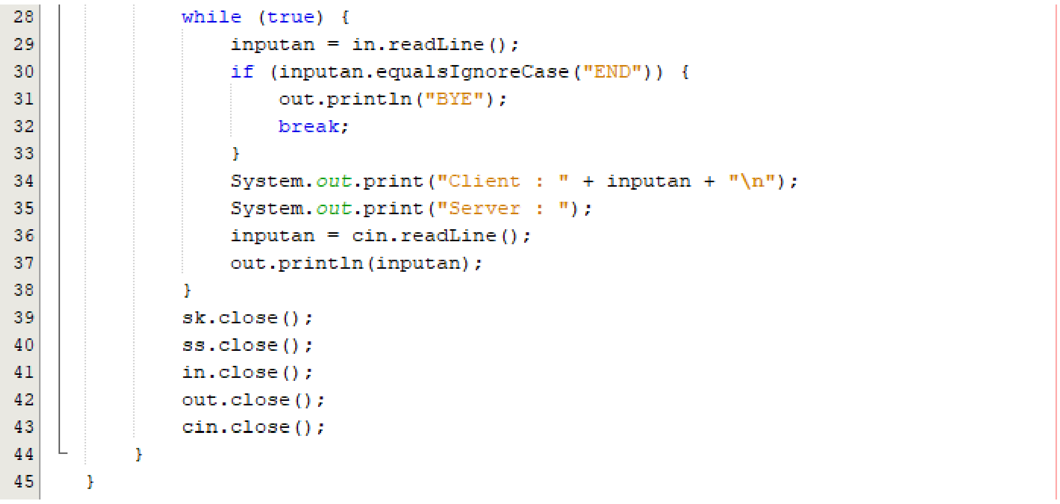
Jawaban :

Code Tugas2

Server

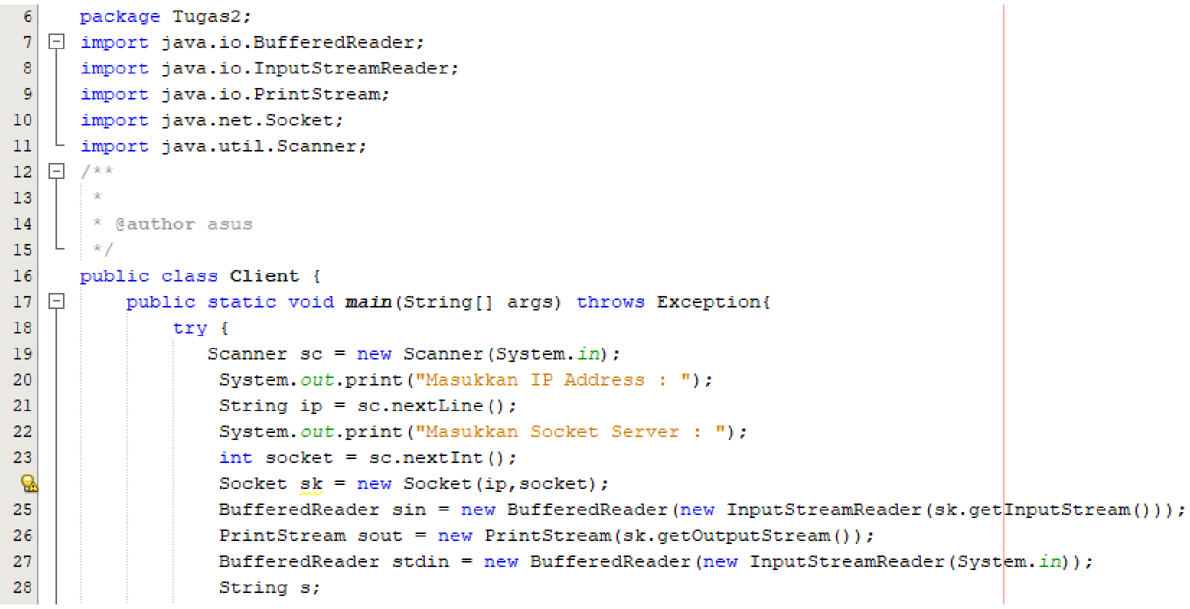


```
package Tugas2;

import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.io.PrintStream;
import java.net.ServerSocket;
import java.net.Socket;

/**
 *
 * @author asus
 */
public class Server {

    public static void main(String[] args) throws IOException {
        ServerSocket sk = new ServerSocket(8888);
        Socket ss = sk.accept();
        BufferedReader in = new BufferedReader(new InputStreamReader(ss.getInputStream()));
        PrintStream out = new PrintStream(ss.getOutputStream());
        BufferedReader cin = new BufferedReader(new InputStreamReader(System.in));
        String inputan;
```

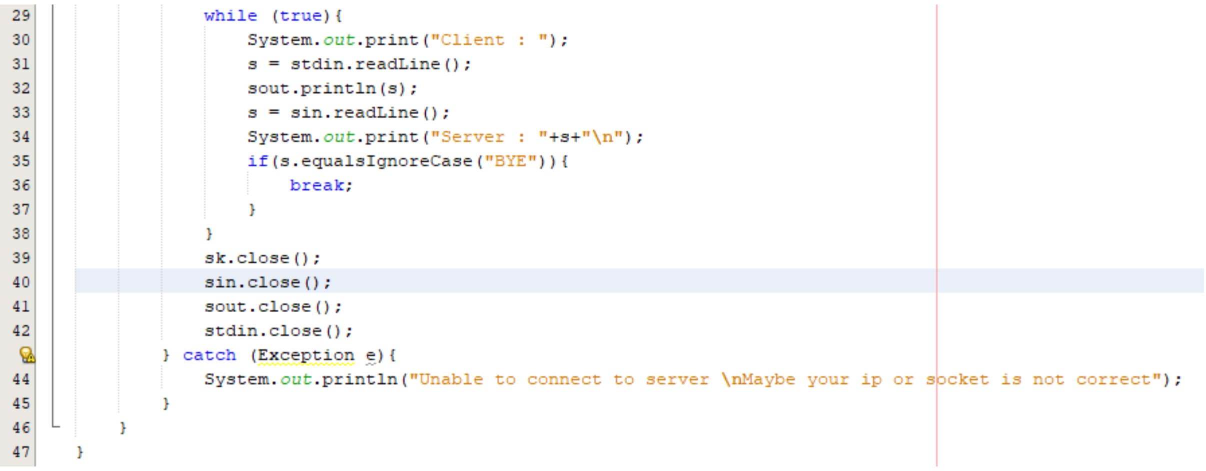


```java
        while (true) {
            inputan = in.readLine();
            if (inputan.equalsIgnoreCase("END")) {
                out.println("BYE");
                break;
            }
            System.out.print("Client : " + inputan + "\n");
            System.out.print("Server : ");
            inputan = cin.readLine();
            out.println(inputan);
        }
        sk.close();
        ss.close();
        in.close();
        out.close();
        cin.close();
    }
}
```

Client



```java
package Tugas2;
import java.io.BufferedReader;
import java.io.InputStreamReader;
import java.io.PrintStream;
import java.net.Socket;
import java.util.Scanner;
/**
 *
 * @author asus
 */
public class Client {
    public static void main(String[] args) throws Exception{
        try {
           Scanner sc = new Scanner(System.in);
            System.out.print("Masukkan IP Address : ");
            String ip = sc.nextLine();
            System.out.print("Masukkan Socket Server : ");
            int socket = sc.nextInt();
            Socket sk = new Socket(ip,socket);
            BufferedReader sin = new BufferedReader(new InputStreamReader(sk.getInputStream()));
            PrintStream sout = new PrintStream(sk.getOutputStream());
            BufferedReader stdin = new BufferedReader(new InputStreamReader(System.in));
            String s;
```

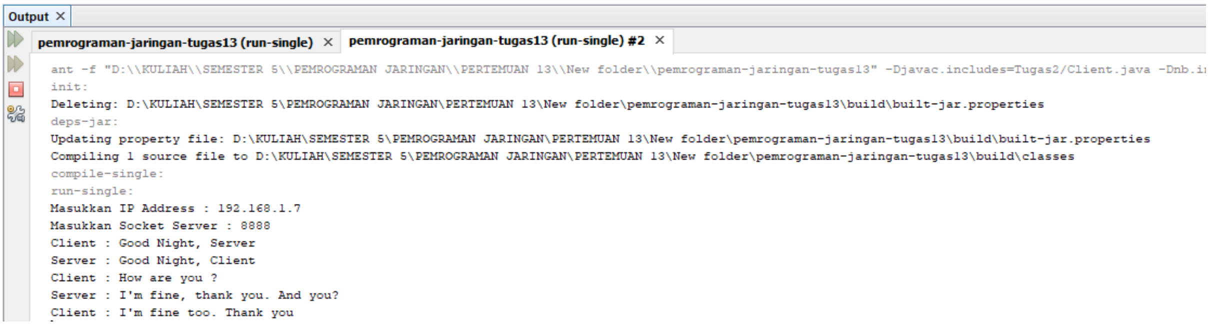


```java
            while (true){
                System.out.print("Client : ");
                s = stdin.readLine();
                sout.println(s);
                s = sin.readLine();
                System.out.print("Server : "+s+"\n");
                if(s.equalsIgnoreCase("BYE")){
                    break;
                }
            }
            sk.close();
            sin.close();
            sout.close();
            stdin.close();
        } catch (Exception e){
            System.out.println("Unable to connect to server \nMaybe your ip or socket is not correct");
        }
    }
}
```

Output

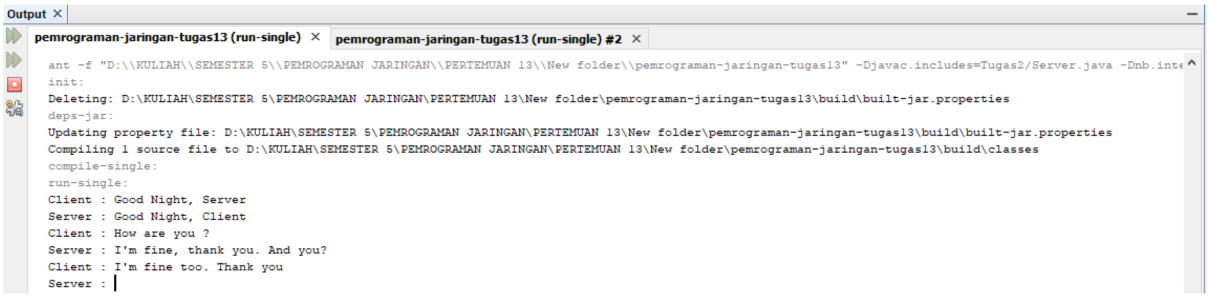
Jalankan class Server dan class Client. Pada class Client masukkan ip address dari server. Kemudian masukkan pula socket server (8888).

Client


Output ×
pemrograman-jaringan-tugas13 (run-single) ×
pemrograman-jaringan-tugas13 (run-single) #2 ×

```
ant -f "D:\\KULIAH\\SEMESTER 5\\PEMROGRAMAN JARINGAN\\PERTEMUAN 13\\New folder\\pemrograman-jaringan-tugas13" -Djavac.includes=Tugas2/Client.java -Dnb.i
init:
Deleting: D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\built-jar.properties
deps-jar:
Updating property file: D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\built-jar.properties
Compiling 1 source file to D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\classes
compile-single:
run-single:
Masukkan IP Address : 192.168.1.7
Masukkan Socket Server : 8888
Client : Good Night, Server
Server : Good Night, Client
Client : How are you ?
Server : I'm fine, thank you. And you?
Client : I'm fine too. Thank you
```

Server


Output ×
pemrograman-jaringan-tugas13 (run-single) ×
pemrograman-jaringan-tugas13 (run-single) #2 ×

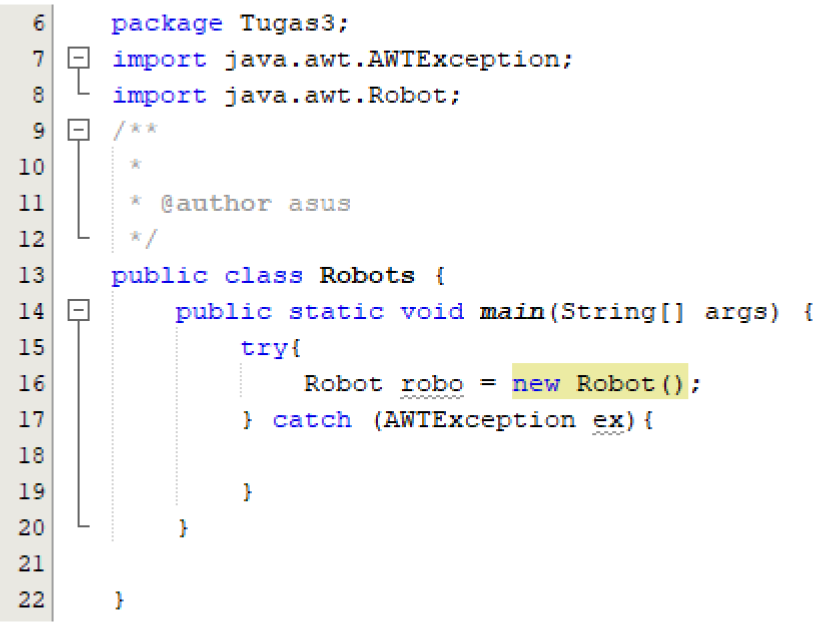
```
ant -f "D:\\KULIAH\\SEMESTER 5\\PEMROGRAMAN JARINGAN\\PERTEMUAN 13\\New folder\\pemrograman-jaringan-tugas13" -Djavac.includes=Tugas2/Server.java -Dnb.inte
init:
Deleting: D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\built-jar.properties
deps-jar:
Updating property file: D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\built-jar.properties
Compiling 1 source file to D:\KULIAH\SEMESTER 5\PEMROGRAMAN JARINGAN\PERTEMUAN 13\New folder\pemrograman-jaringan-tugas13\build\classes
compile-single:
run-single:
Client : Good Night, Server
Server : Good Night, Client
Client : How are you ?
Server : I'm fine, thank you. And you?
Client : I'm fine too. Thank you
Server : 
```

3. Buatlah program untuk meremote Cursor Mouse computer lain menggunakan UDP!

Jawaban :

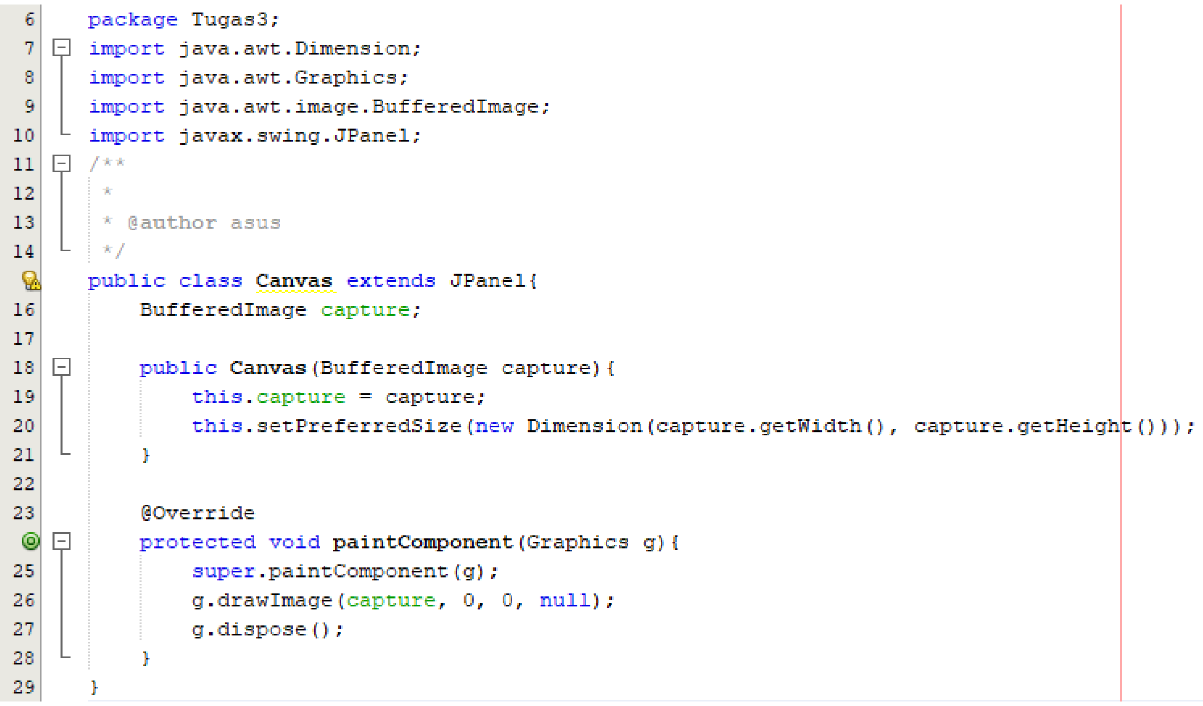
Code Tugas3

Class Robots



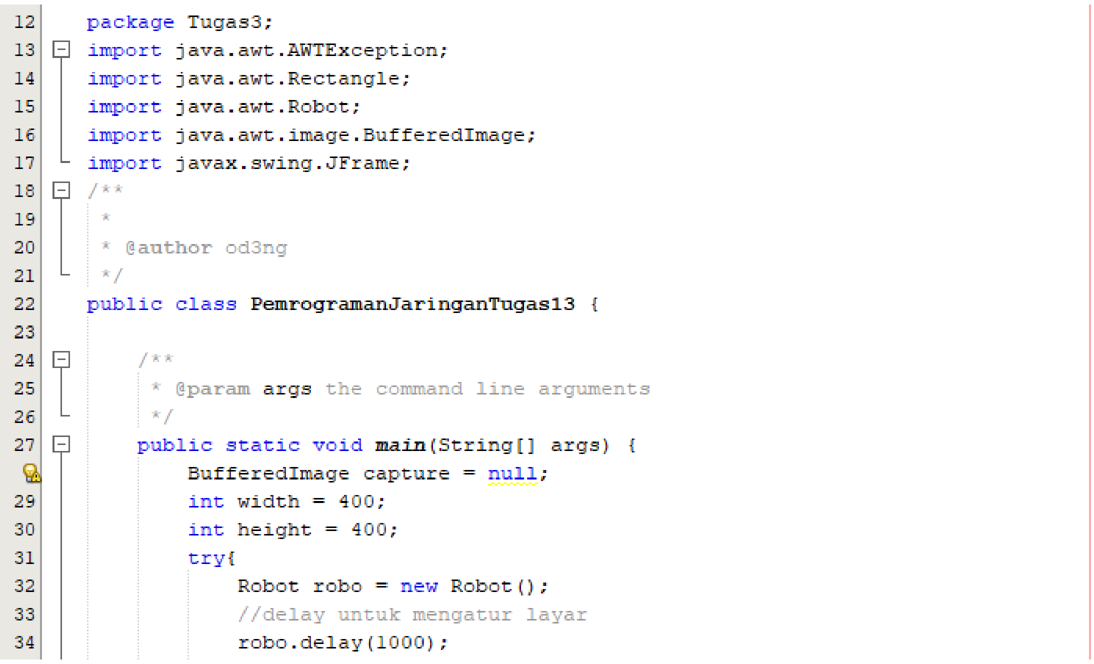
```java
package Tugas3;
import java.awt.AWTException;
import java.awt.Robot;
/**
 *
 * @author asus
 */
public class Robots {
    public static void main(String[] args) {
        try{
            Robot robo = new Robot();
        } catch (AWTException ex){

        }
    }

}
```

Class Canvas

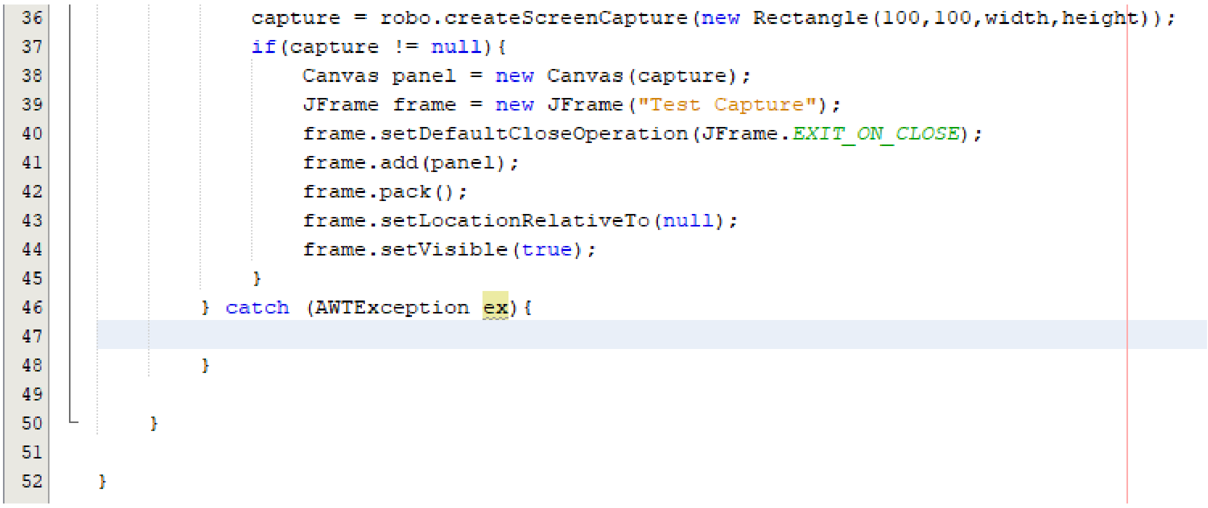


```java
package Tugas3;
import java.awt.Dimension;
import java.awt.Graphics;
import java.awt.image.BufferedImage;
import javax.swing.JPanel;
/**
 *
 * @author asus
 */
public class Canvas extends JPanel{
    BufferedImage capture;

    public Canvas(BufferedImage capture){
        this.capture = capture;
        this.setPreferredSize(new Dimension(capture.getWidth(), capture.getHeight()));
    }

    @Override
    protected void paintComponent(Graphics g){
        super.paintComponent(g);
        g.drawImage(capture, 0, 0, null);
        g.dispose();
    }
}
```

Main Class

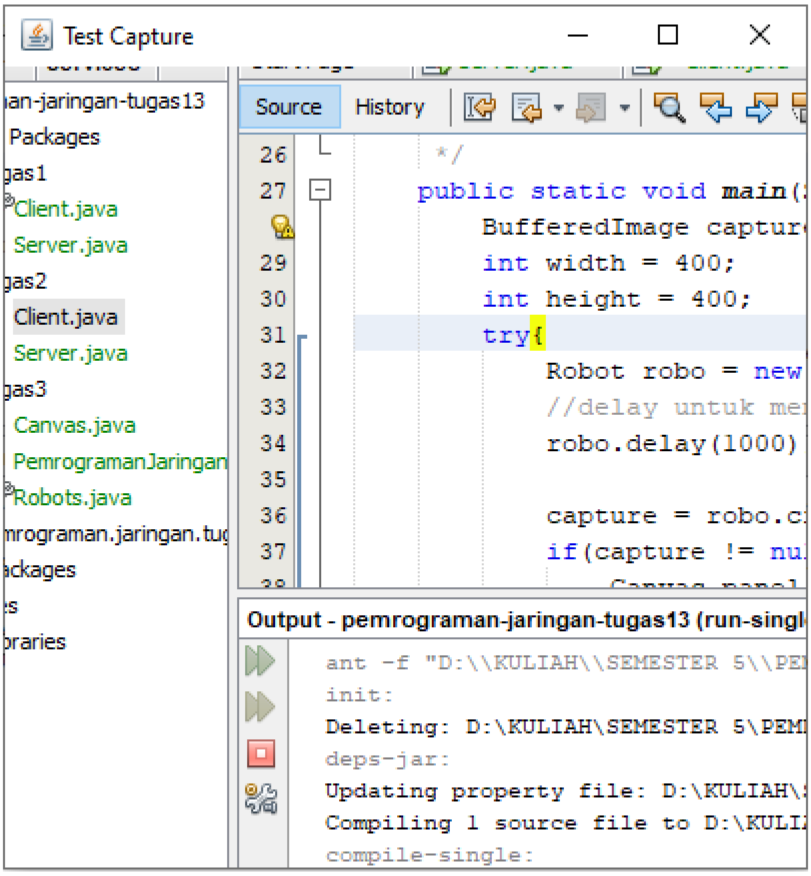


```java
package Tugas3;
import java.awt.AWTException;
import java.awt.Rectangle;
import java.awt.Robot;
import java.awt.image.BufferedImage;
import javax.swing.JFrame;
/**
 *
 * @author od3ng
 */
public class PemrogramanJaringanTugas13 {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        BufferedImage capture = null;
        int width = 400;
        int height = 400;
        try{
            Robot robo = new Robot();
            //delay untuk mengatur layar
            robo.delay(1000);
```



```
            capture = robo.createScreenCapture(new Rectangle(100,100,width,height));
            if(capture != null){
                Canvas panel = new Canvas(capture);
                JFrame frame = new JFrame("Test Capture");
                frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
                frame.add(panel);
                frame.pack();
                frame.setLocationRelativeTo(null);
                frame.setVisible(true);
            }
        } catch (AWTException ex){

        }

    }

}
```

Output



```
    */
    public static void main(
        BufferedImage captur
        int width = 400;
        int height = 400;
        try{
            Robot robo = new
            //delay untuk me
            robo.delay(1000)

            capture = robo.c
            if(capture != nu
```

```
ant -f "D:\\KULIAH\\SEMESTER 5\\PE
init:
Deleting: D:\KULIAH\SEMESTER 5\PEM
deps-jar:
Updating property file: D:\KULIAH\
Compiling 1 source file to D:\KULI
compile-single:
```