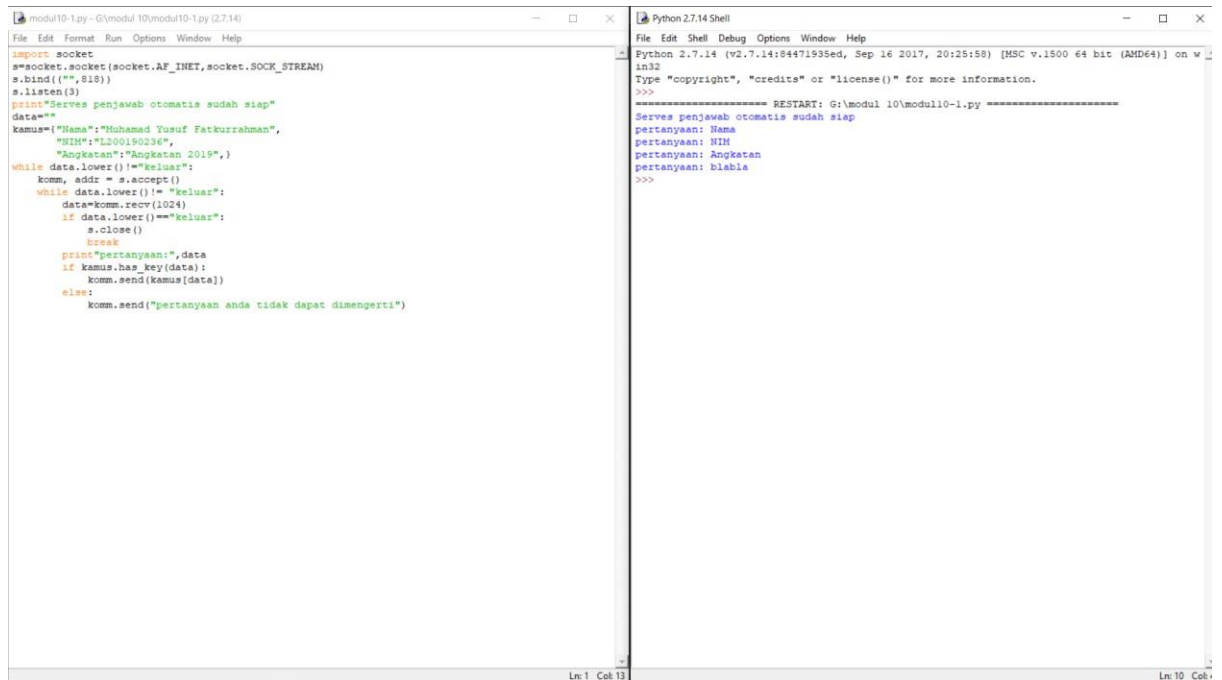


Kegiatan 1

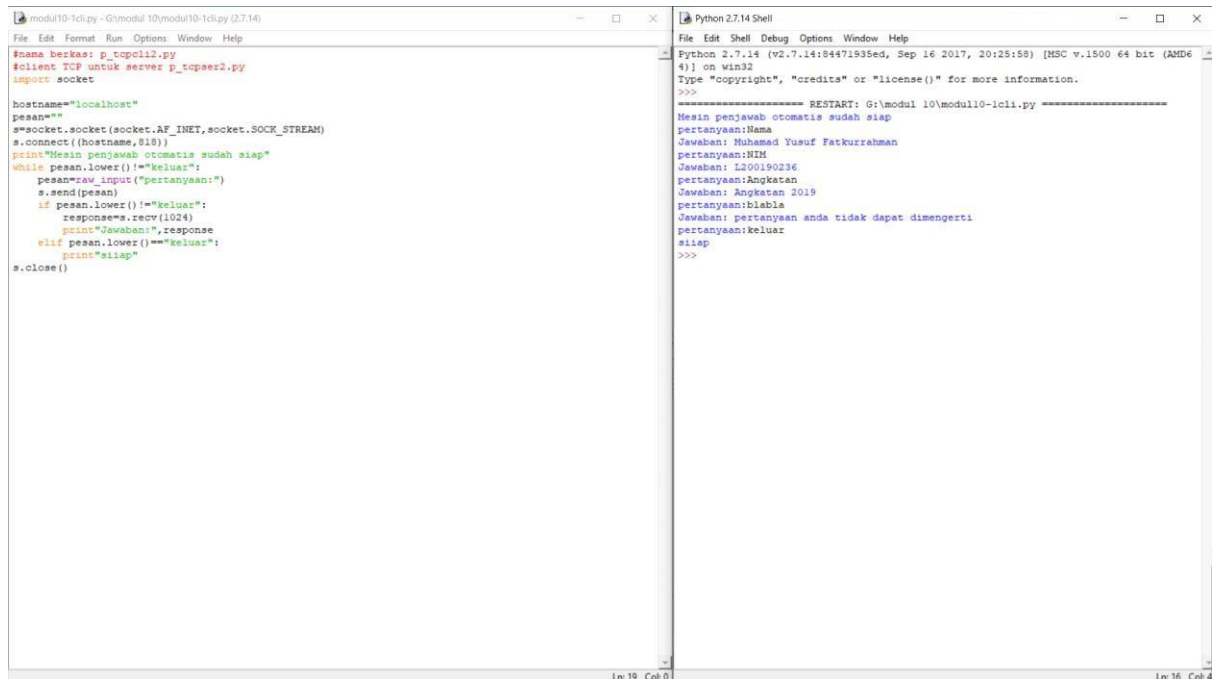
Server



```
modul10-1.py - G:\modul 10\modul10-1.py (2.7.14)
File Edit Format Run Options Window Help
import socket
s=socket.socket(socket.AF_INET,socket.SOCK_STREAM)
s.bind(('',818))
s.listen(3)
print "Server penjawab otomatis sudah siap"
data=""
kamus={"Nama":"Muhamad Yusuf Fatkurrahman",
       "NIM":"L200190236",
       "Angkatan":"Angkatan 2019",}
while data.lower()!="keluar":
    komm, addr = s.accept()
    while data.lower()!="keluar":
        data=komm.recv(1024)
        if data.lower()!="keluar":
            s.close()
            break
        print "pertanyaan:",data
        if kamus.has_key(data):
            komm.send(kamus[data])
        else:
            komm.send("pertanyaan anda tidak dapat dimengerti")

Python 2.7.14 Shell
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:25:58) [MSC v.1500 64 bit (AMD64)] on w
in32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: G:\modul 10\modul10-1.py =====
Server penjawab otomatis sudah siap
pertanyaan: Nama
pertanyaan: NIM
pertanyaan: Angkatan
pertanyaan: blabla
>>>
```

Client



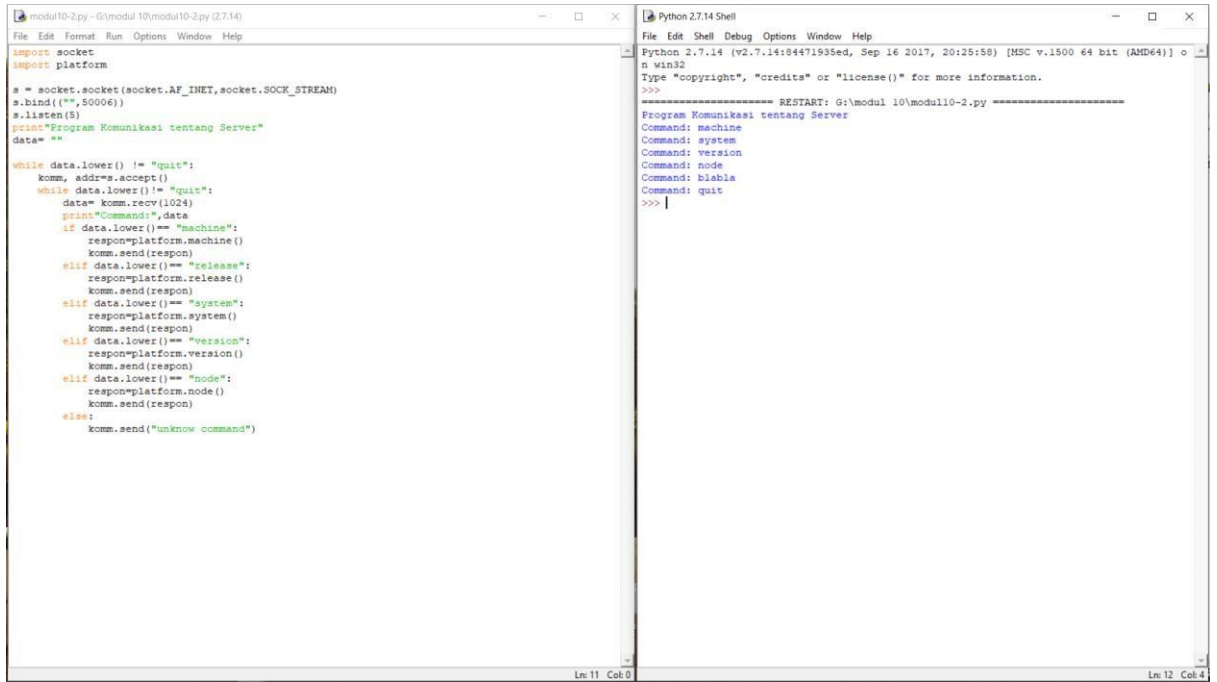
```
modul10-1cli.py - G:\modul 10\modul10-1cli.py (2.7.14)
File Edit Format Run Options Window Help
#nama berkas: p_topcli2.py
#client TCP untuk server p_topser2.py
import socket

hostname="localhost"
pesan=""
s=socket.socket(socket.AF_INET,socket.SOCK_STREAM)
s.connect((hostname,818))
print "Mesin penjawab otomatis sudah siap"
while pesan.lower()!="keluar":
    pesan=raw_input("pertanyaan:")
    s.send(pesan)
    if pesan.lower()!="keluar":
        response=s.recv(1024)
        print "Jawaban:",response
    elif pesan.lower()!="keluar":
        print "siap"
s.close()

Python 2.7.14 Shell
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:25:58) [MSC v.1500 64 bit (AMD6
4)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: G:\modul 10\modul10-1cli.py =====
Mesin penjawab otomatis sudah siap
pertanyaan: Nama
Jawaban: Muhamad Yusuf Fatkurrahman
pertanyaan: NIM
Jawaban: L200190236
pertanyaan: Angkatan
Jawaban: Angkatan 2019
pertanyaan: blabla
Jawaban: pertanyaan anda tidak dapat dimengerti
pertanyaan: keluar
siap
>>>
```

Kegiatan 2

Server



The screenshot shows a Python 2.7.14 IDE with two windows. The left window displays a server script named `modul10-2.py`. The script uses the `socket` module to create a server socket, bind it to `localhost` on port `50006`, and listen for connections. It then enters a loop where it receives data from a client, checks for the command `quit`, and if not, sends back the response from the `platform` module for the given command. The right window shows the Python 2.7.14 Shell, which has restarted the script. The output shows the program's title bar, followed by the commands `machine`, `system`, `version`, `node`, `blabla`, and `quit`, each followed by its corresponding response from the `platform` module.

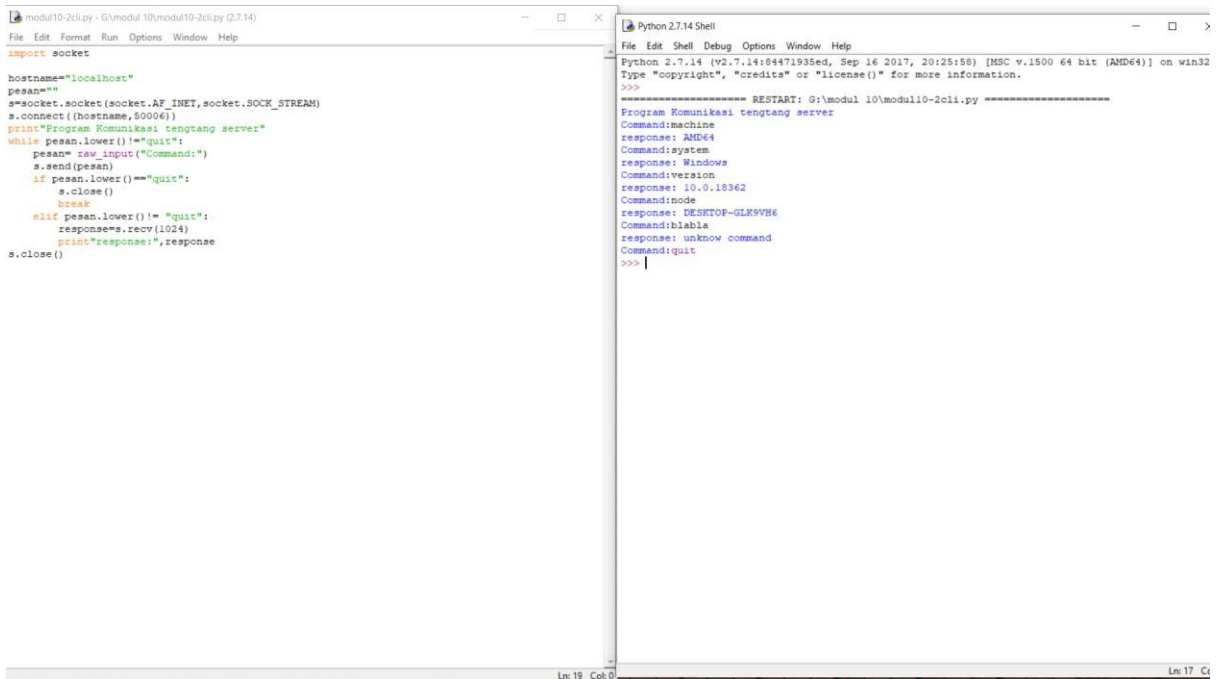
```
modul10-2.py - G:\modul 10\modul10-2.py (2.7.14)
File Edit Format Run Options Window Help
import socket
import platform

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 50006))
s.listen(5)
print "Program Komunikasi tentang Server"
data = ""

while data.lower() != "quit":
    kumm, address = s.accept()
    while data.lower() != "quit":
        data = kumm.recv(1024)
        print "Command:", data
        if data.lower() == "machine":
            respon = platform.machine()
            kumm.send(respon)
        elif data.lower() == "release":
            respon = platform.release()
            kumm.send(respon)
        elif data.lower() == "system":
            respon = platform.system()
            kumm.send(respon)
        elif data.lower() == "version":
            respon = platform.version()
            kumm.send(respon)
        elif data.lower() == "node":
            respon = platform.node()
            kumm.send(respon)
        else:
            kumm.send("unknow command")

Python 2.7.14 Shell
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:25:58) [MSC v.1500 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: G:\modul 10\modul10-2.py =====
Program Komunikasi tentang Server
Command: machine
Command: machine
Command: system
Command: version
Command: node
Command: blabla
Command: quit
>>>
```

Client



The screenshot shows a Python 2.7.14 IDE with two windows. The left window displays a client script named `modul10-2cli.py`. The script uses the `socket` module to create a client socket, connect it to `localhost` on port `50006`, and enter a loop where it receives input from the user, sends it to the server, and prints the response. The right window shows the Python 2.7.14 Shell, which has restarted the script. The output shows the program's title bar, followed by the commands `machine`, `system`, `version`, `node`, `blabla`, and `quit`, each followed by its corresponding response from the server.

```
modul10-2cli.py - G:\modul 10\modul10-2cli.py (2.7.14)
File Edit Format Run Options Window Help
import socket

hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 50006))
print "Program Komunikasi tentang server"
while pesan.lower() != "quit":
    pesan = raw_input("Command:")
    s.send(pesan)
    if pesan.lower() == "quit":
        s.close()
        break
    elif pesan.lower() != "quit":
        response = s.recv(1024)
        print "response:", response
s.close()

Python 2.7.14 Shell
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:25:58) [MSC v.1500 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: G:\modul 10\modul10-2cli.py =====
Program Komunikasi tentang server
Command: machine
response: AMD64
Command: system
response: Windows
Command: version
response: 10.0.18362
Command: node
response: DESKTOP-GLK9VH6
Command: blabla
response: unknow command
Command: quit
>>>
```

Kegiatan 3

Server

```
modul10-3.py - E:\modul10-3.py (2.7.14)
File Edit Format Run Options Window Help
import socket
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 50006))
s.listen(5)
print "Server sudah siap"
perintah = ""
s = 0
t = 0
while perintah != "keluar":
    komm, addr = s.accept()
    while perintah != "keluar":
        item = komm.recv(1024).lower().split(" ")
        perintah = item[0]
        if perintah == "keluar":
            komm.send("done")
            s.close()
            break
        print "pesan: ", perintah
        if len(item) == 2:
            if perintah == "alas":
                a = int(item[1])
                komm.send("alas disimpan")
            elif perintah == "tinggi":
                t = int(item[1])
                komm.send("tinggi disimpan")
            else:
                komm.send("Pesan tidak diketahui")
        elif perintah == "hitung":
            l = float(a * t)
            response = "Luas jajargenjang dengan alas {} dan tinggi {} adalah {}".format(a, t, l)
            komm.send(response)
        else:
            komm.send("Pesan tidak diketahui")

Python 2.7.14 Shell
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:25:58) [MSC v.1500 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\modul10-3.py =====
Server sudah siap
pesan: alas
pesan: tinggi
pesan: hitung
>>>
```

Client

```
modul10-3cli.py - E:\modul10-3cli.py (2.7.14)
File Edit Format Run Options Window Help
import socket
hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 50006))
print "Menghitung Luas Jajar Genjang"
while pesan.lower() != "keluar":
    pesan = raw_input("Pesan: ")
    s.send(pesan)
    if pesan.lower() == "keluar":
        response = s.recv(1024)
        print "Response: -"
        s.close()
        break
    elif pesan.lower() != "keluar":
        response = s.recv(1024)
        print "Response: ", response
    s.close()

Python 2.7.14 Shell
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:25:58) [MSC v.1500 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\modul10-3cli.py =====
Menghitung Luas Jajar Genjang
pesan: alas=6
response: alas disimpan
pesan: tinggi=6
response: tinggi disimpan
pesan: hitung
response: Luas jajargenjang dengan alas 6 dan tinggi 6 adalah 36.0
pesan: keluar
Response: -
>>>
```

