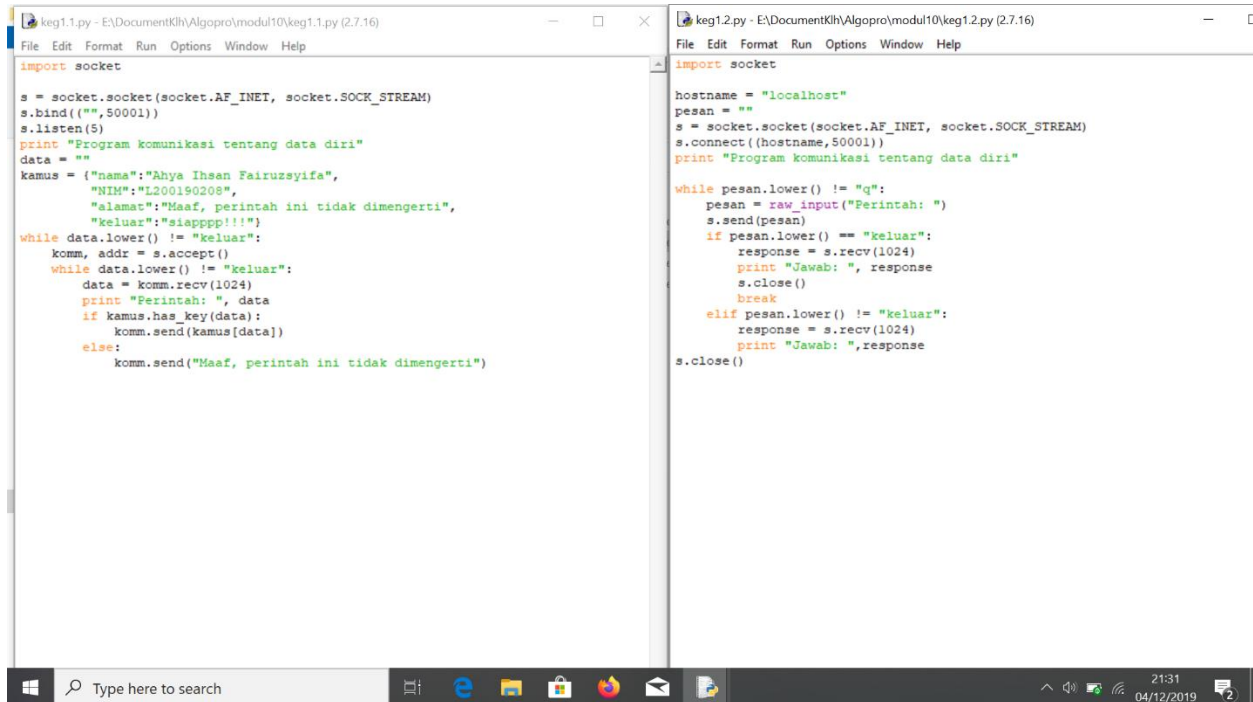


Praktikum Algoritma dan Pemrograman

Modul 10

KEGIATAN 1 . Data Diri dari Server



```
keg1.1.py - E:\DocumentKlh\Algopro\modul10\keg1.1.py (2.7.16)
File Edit Format Run Options Window Help

import socket

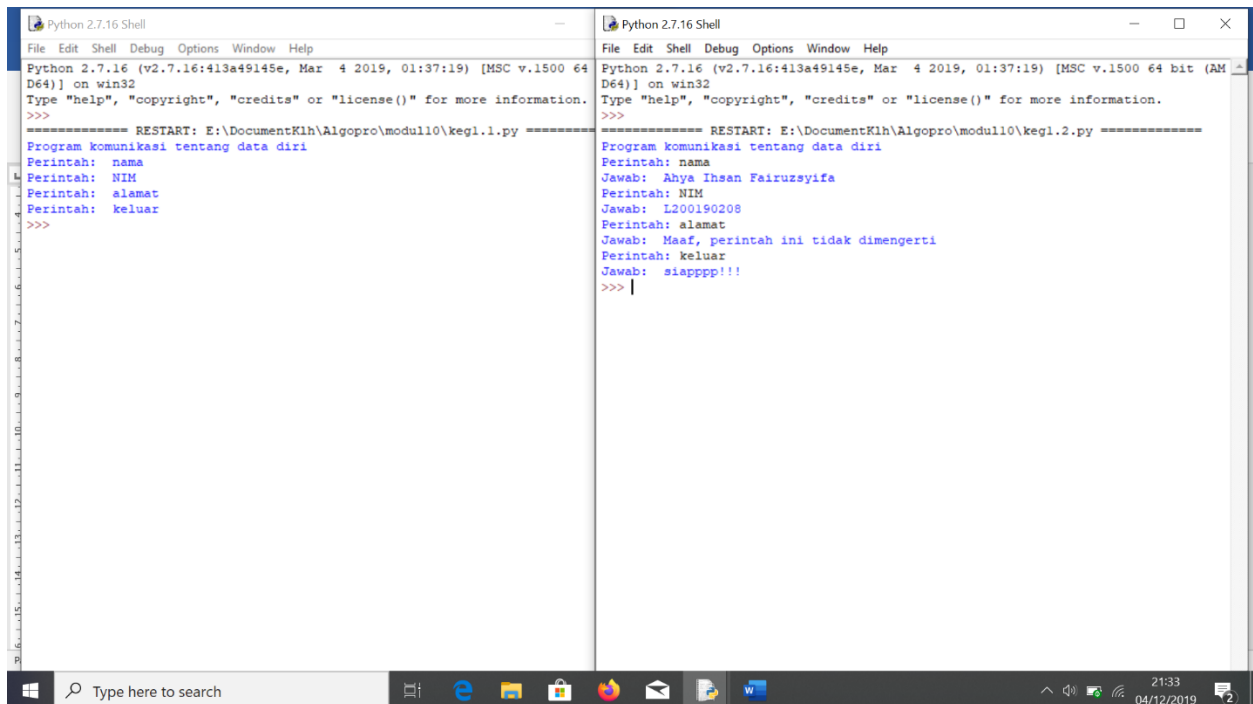
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(("", 50001))
s.listen(5)
print "Program komunikasi tentang data diri"
data = ""
kamus = {"nama": "Ahyia Ihsan Fairuzsyifa",
         "NIM": "L200190208",
         "alamat": "Maaf, perintah ini tidak dimengerti",
         "keluar": "siappppp!!!" }
while data.lower() != "keluar":
    komm, addr = s.accept()
    while data.lower() != "keluar":
        data = komm.recv(1024)
        print "Perintah: ", data
        if kamus.has_key(data):
            komm.send(kamus[data])
        else:
            komm.send("Maaf, perintah ini tidak dimengerti")

keg1.2.py - E:\DocumentKlh\Algopro\modul10\keg1.2.py (2.7.16)
File Edit Format Run Options Window Help

import socket

hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 50001))
print "Program komunikasi tentang data diri"

while pesan.lower() != "q":
    pesan = raw_input("Perintah: ")
    s.send(pesan)
    if pesan.lower() == "keluar":
        response = s.recv(1024)
        print "Jawab: ", response
        s.close()
        break
    elif pesan.lower() != "keluar":
        response = s.recv(1024)
        print "Jawab: ", response
s.close()
```



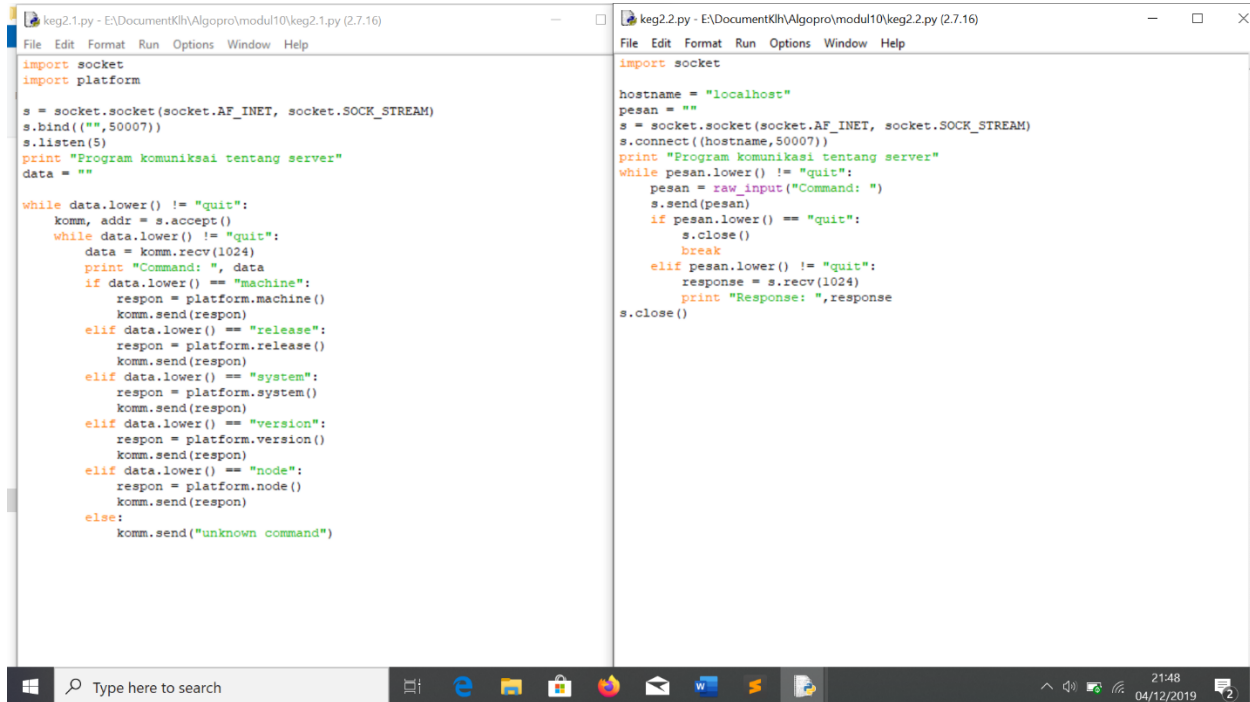
```
Python 2.7.16 Shell
File Edit Shell Debug Options Window Help

Python 2.7.16 (v2.7.16:413a49145e, Mar  4 2019, 01:37:19) [MSC v.1500 64
D64] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\DocumentKlh\Algopro\modul10\keg1.1.py =====
Program komunikasi tentang data diri
Perintah: nama
Jawab: Ahyia Ihsan Fairuzsyifa
Perintah: NIM
Jawab: L200190208
Perintah: alamat
Jawab: Maaf, perintah ini tidak dimengerti
Perintah: keluar
Jawab: siappppp!!!
>>>

Python 2.7.16 Shell
File Edit Shell Debug Options Window Help

Python 2.7.16 (v2.7.16:413a49145e, Mar  4 2019, 01:37:19) [MSC v.1500 64 bit (AM
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\DocumentKlh\Algopro\modul10\keg1.2.py =====
Program komunikasi tentang data diri
Perintah: nama
Jawab: Ahyia Ihsan Fairuzsyifa
Perintah: NIM
Jawab: L200190208
Perintah: alamat
Jawab: Maaf, perintah ini tidak dimengerti
Perintah: keluar
Jawab: siappppp!!!
>>> |
```

KEGIATAN 2 . Informasi tentang Server



The screenshot shows two side-by-side Python IDE windows. The left window, titled 'keg2.1.py', contains server-side code that listens on port 50007 and responds to commands like 'machine', 'system', 'release', 'version', and 'node'. The right window, titled 'keg2.2.py', contains client-side code that connects to 'localhost' on port 50007 and sends the same commands, receiving responses from the server.

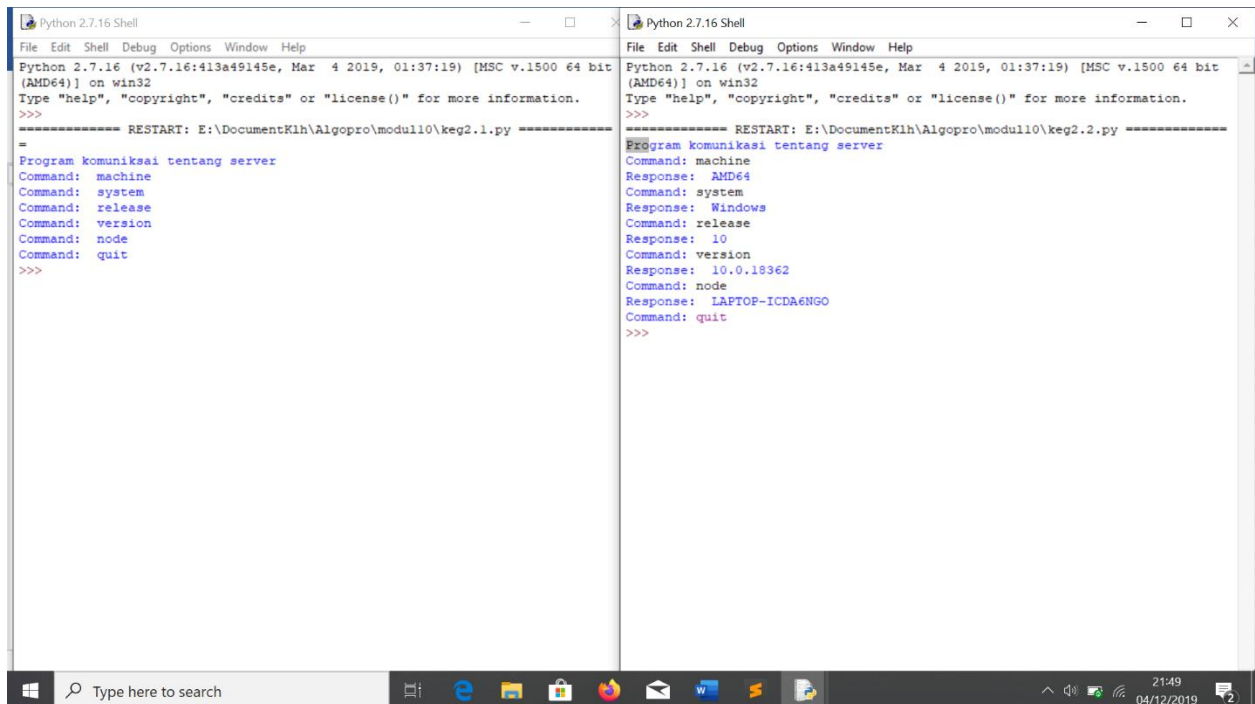
```
keg2.1.py - E:\DocumentKlh\Algopro\modul10\keg2.1.py (2.7.16)
File Edit Format Run Options Window Help
import socket
import platform

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(("", 50007))
s.listen(5)
print "Program komunikasi tentang server"
data = ""

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

keg2.2.py - E:\DocumentKlh\Algopro\modul10\keg2.2.py (2.7.16)
File Edit Format Run Options Window Help
import socket

hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 50007))
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()
```

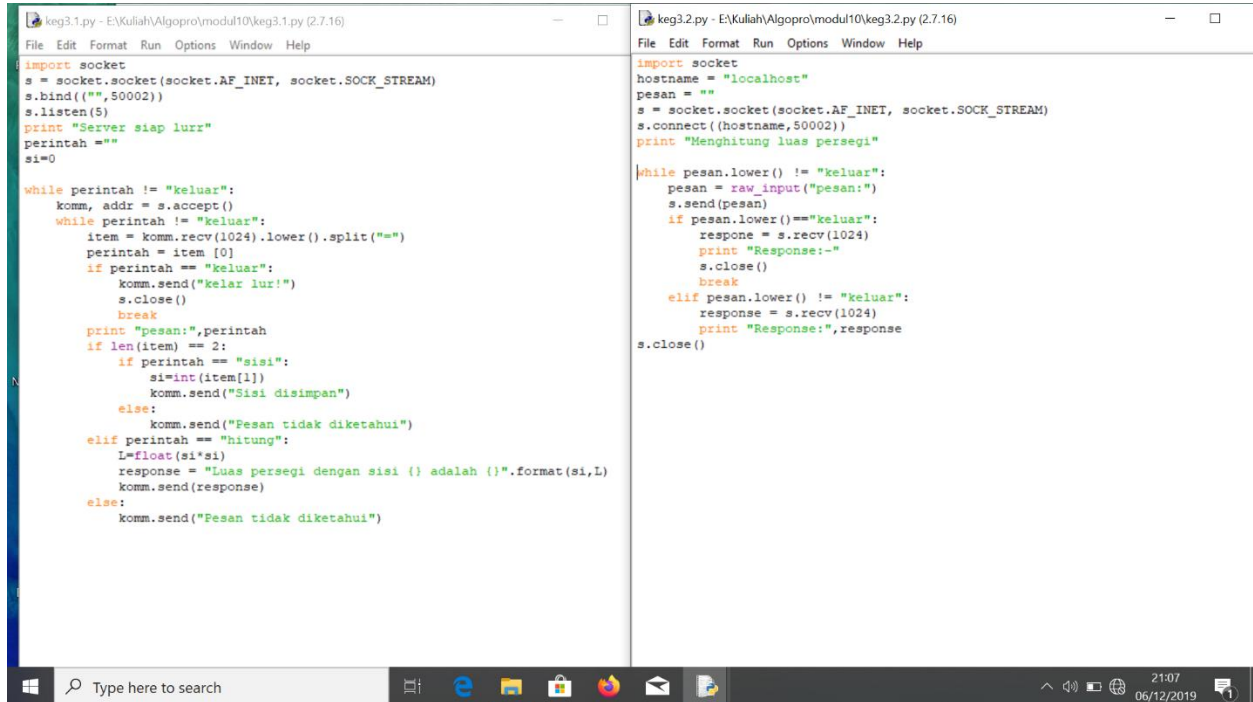


The screenshot shows two side-by-side Python 2.7.16 Shell windows. The left window shows the execution of 'keg2.1.py', where the server program is running and responding to commands. The right window shows the execution of 'keg2.2.py', where the client program is running and sending commands to the server, receiving responses in return.

```
Python 2.7.16 Shell
File Edit Shell Debug Options Window Help
Python 2.7.16 (v2.7.16:413a49145e, Mar 4 2019, 01:37:19) [MSC v.1500 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\DocumentKlh\Algopro\modul10\keg2.1.py =====
Program komunikasi tentang server
Command: machine
Command: system
Command: release
Command: version
Command: node
Command: quit
>>>

Python 2.7.16 Shell
File Edit Shell Debug Options Window Help
Python 2.7.16 (v2.7.16:413a49145e, Mar 4 2019, 01:37:19) [MSC v.1500 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\DocumentKlh\Algopro\modul10\keg2.2.py =====
Program komunikasi tentang server
Command: machine
Response: AMD64
Command: system
Response: Windows
Command: release
Response: 10
Command: version
Response: 10.0.18362
Command: node
Response: LAPTOP-ICDA6NGO
Command: quit
>>>
```

KEGIATAN 3 . Menghitung Luas Bangun Geometri



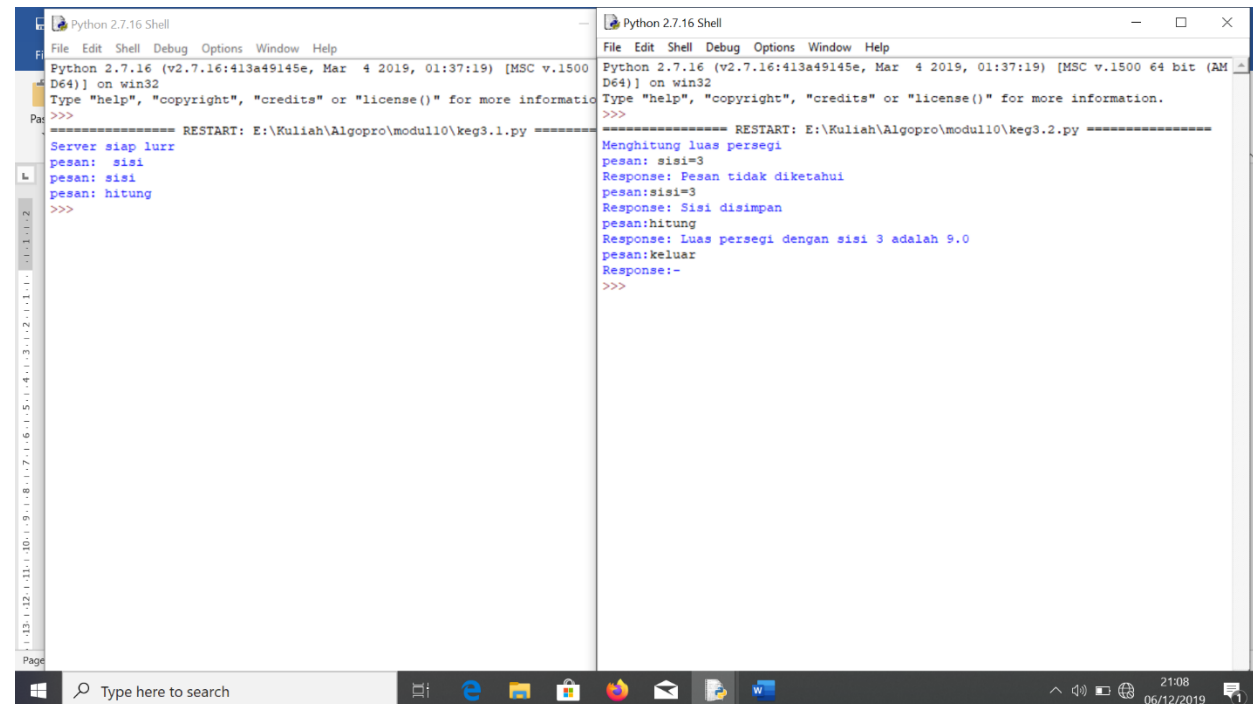
The image shows two side-by-side Python IDE windows. The left window, titled 'keg3.1.py', contains the code for a server that listens for client connections and processes commands. The right window, titled 'keg3.2.py', contains the code for a client that connects to the server and sends commands to calculate the area of a square.

```
File Edit Format Run Options Window Help
import socket
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 50002))
s.listen(5)
print "Server siap lurr"
perintah = ""
si=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("kelar lur!")
            s.close()
            break
        print "pesan:",perintah
        if len(item) == 2:
            if perintah == "sisi":
                si=int(item[1])
                komm.send("Sisi disimpan")
            else:
                komm.send("Pesan tidak diketahui")
        elif perintah == "hitung":
            L=float(si*si)
            response = "Luas persegi dengan sisi {} adalah {}".format(si,L)
            komm.send(response)
        else:
            komm.send("Pesan tidak diketahui")
```

```
File Edit Format Run Options Window Help
import socket
hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname,50002))
print "Menghitung luas persegi"

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()
```



The image shows two side-by-side Python 2.7.16 Shell windows. The left window shows the execution of the server program (keg3.1.py), and the right window shows the execution of the client program (keg3.2.py). The server window shows the server listening for connections and processing commands. The client window shows the client sending commands to the server and receiving responses.

```
Python 2.7.16 Shell
File Edit Shell Debug Options Window Help
Python 2.7.16 (v2.7.16:413a49145e, Mar  4 2019, 01:37:19) [MSC v.1500
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more informati
>>>
===== RESTART: E:\Kuliah\Algopro\modul10\keg3.1.py =====
Server siap lurr
pesan: sisi
pesan: sisi
pesan: hitung
>>>
```

```
Python 2.7.16 Shell
File Edit Shell Debug Options Window Help
Python 2.7.16 (v2.7.16:413a49145e, Mar  4 2019, 01:37:19) [MSC v.1500 64 bit (AM
D64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\Kuliah\Algopro\modul10\keg3.2.py =====
Menghitung luas persegi
pesan: sisi=3
Response: Pesan tidak diketahui
pesan:sisi=3
Response: Sisi disimpan
pesan:hitung
Response: Luas persegi dengan sisi 3 adalah 9.0
pesan:keluar
Response:-
>>>
```