

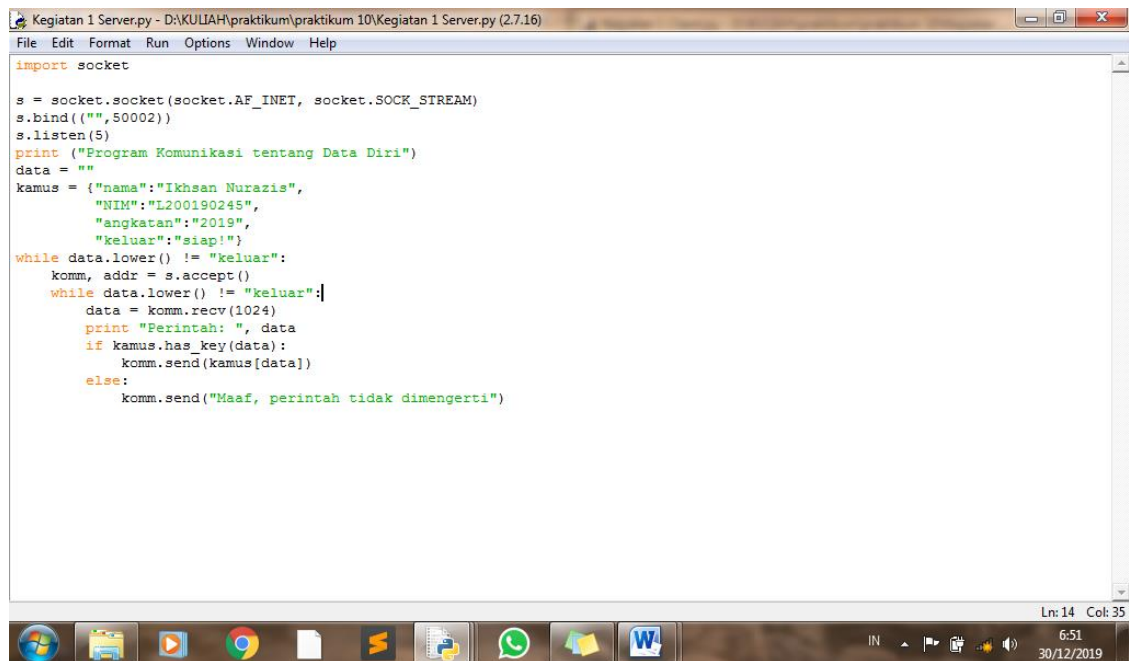
Nama : Ikhsan Nurazis

NIM : L200190245

Kelas: F

Kegiatan 1. Data diri dari server

Program sisi server



```
Kegiatan 1 Server.py - D:\KULIAH\praktikum\praktikum 10\Kegiatan 1 Server.py (2.7.16)
File Edit Format Run Options Window Help

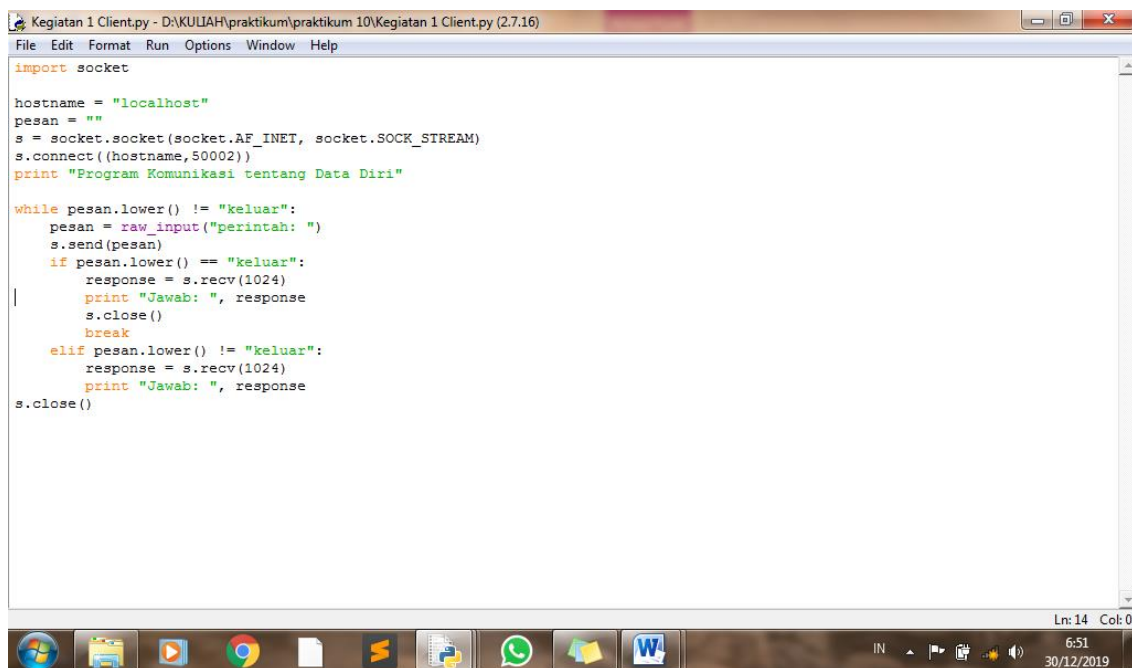
import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(("", 50002))
s.listen(5)
print ("Program Komunikasi tentang Data Diri")
data = ""
kamus = {"nama": "Ikhsan Nurazis",
        "NIM": "L200190245",
        "angkatan": "2019",
        "keluar": "siap!"}

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 tidak dimengerti")

Ln: 14 Col: 35
```

Program sisi client



```
Kegiatan 1 Client.py - D:\KULIAH\praktikum\praktikum 10\Kegiatan 1 Client.py (2.7.16)
File Edit Format Run Options Window Help

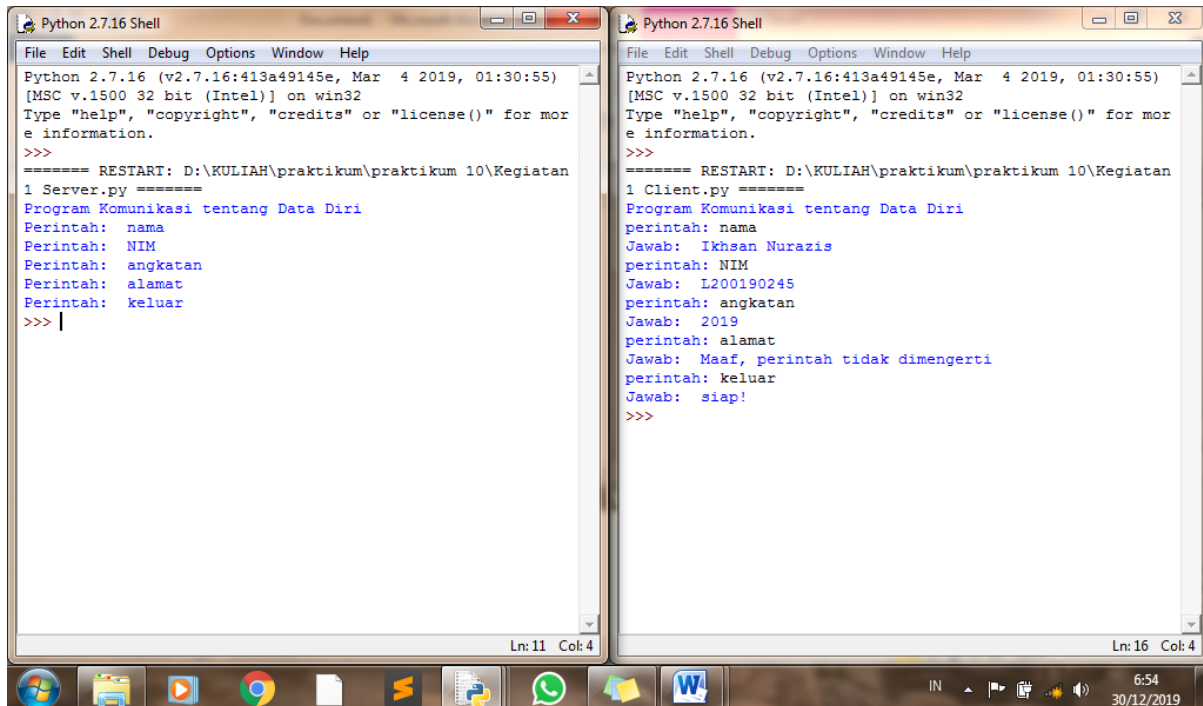
import socket

hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 50002))
print "Program Komunikasi tentang Data Diri"

while pesan.lower() != "keluar":
    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()

Ln: 14 Col: 0
```

Tampilan server dan client



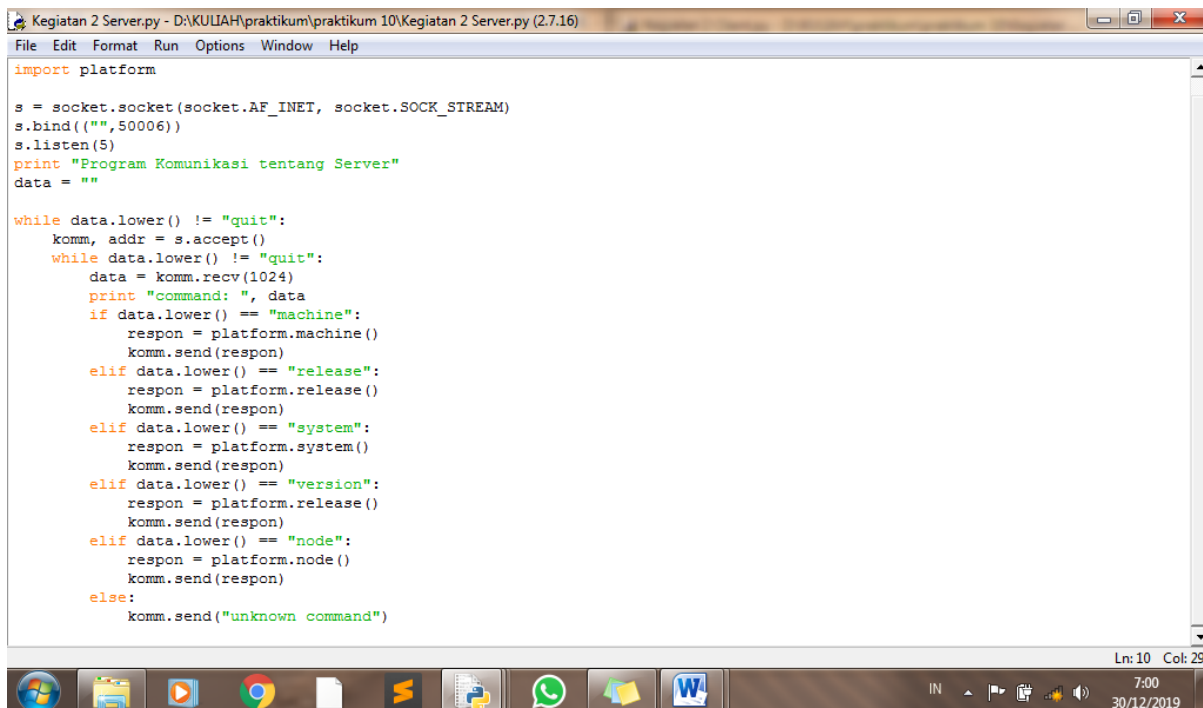
The image shows two side-by-side Python 2.7.16 Shell windows. The left window is running a server script named 'Server.py' and the right window is running a client script named 'Client.py'. Both scripts are located at 'D:\KULIAH\praktikum\praktikum 10\Kegiatan 1'. The server script prompts for user input (nama, NIM, angkatan, alamat, keluar) and the client script provides the corresponding output (Ikhsan Nurazis, L200190245, 2019, Maaf, perintah tidak dimengerti, siap!).

```
Python 2.7.16 Shell
File Edit Shell Debug Options Window Help
Python 2.7.16 (v2.7.16:413a49145e, Mar 4 2019, 01:30:55)
[MSC v.1500 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:\KULIAH\praktikum\praktikum 10\Kegiatan
1 Server.py =====
Program Komunikasi tentang Data Diri
Perintah: nama
Perintah: NIM
Perintah: angkatan
Perintah: alamat
Perintah: keluar
>>> |

Python 2.7.16 Shell
File Edit Shell Debug Options Window Help
Python 2.7.16 (v2.7.16:413a49145e, Mar 4 2019, 01:30:55)
[MSC v.1500 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:\KULIAH\praktikum\praktikum 10\Kegiatan
1 Client.py =====
Program Komunikasi tentang Data Diri
perintah: nama
Jawab: Ikhsan Nurazis
perintah: NIM
Jawab: L200190245
perintah: angkatan
Jawab: 2019
perintah: alamat
Jawab: Maaf, perintah tidak dimengerti
perintah: keluar
Jawab: siap!
>>>
```

Kegiatan 2. Informasi tentang server

Program sisi server



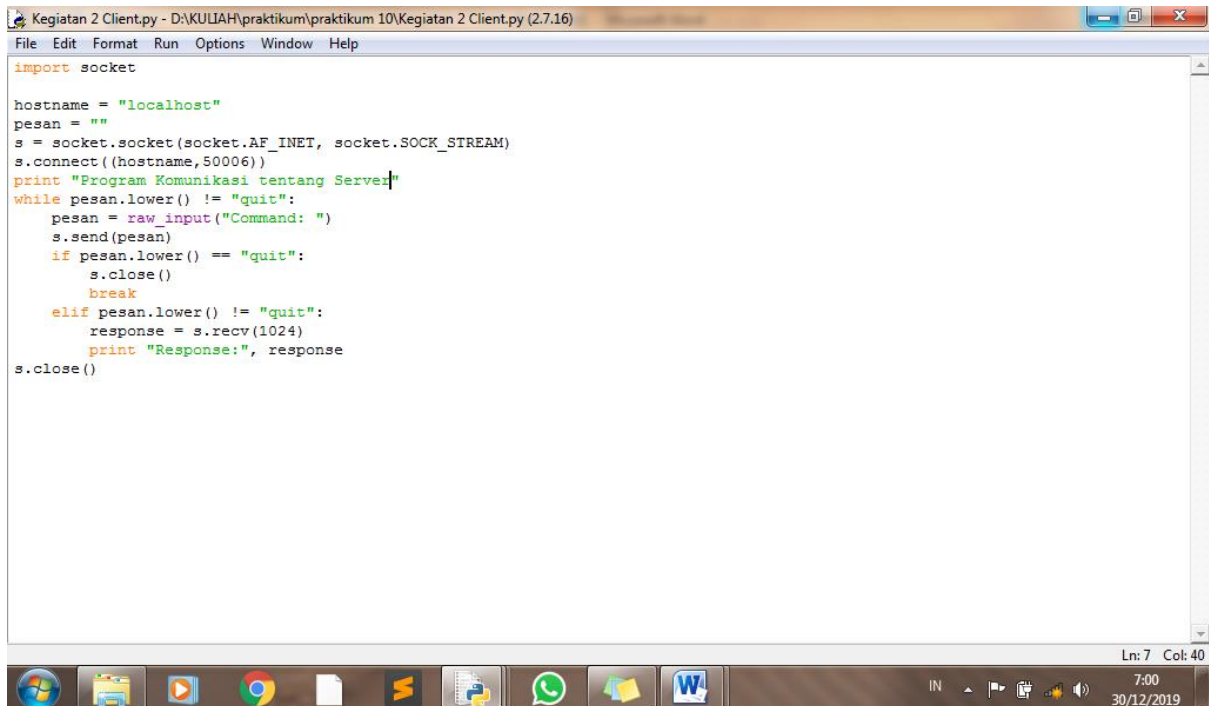
The image shows a Python script named 'Kegiatan 2 Server.py' in a text editor. The script uses the 'platform' module to provide system information to the client. It listens on port 50006 and responds to commands like 'machine', 'release', 'system', 'version', and 'node'.

```
Kegiatan 2 Server.py - D:\KULIAH\praktikum\praktikum 10\Kegiatan 2 Server.py (2.7.16)
File Edit Format Run Options Window Help
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":
    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.release()
            komm.send(respon)
        elif data.lower() == "node":
            respon = platform.node()
            komm.send(respon)
        else:
            komm.send("unknown command")
```

Program sisi client



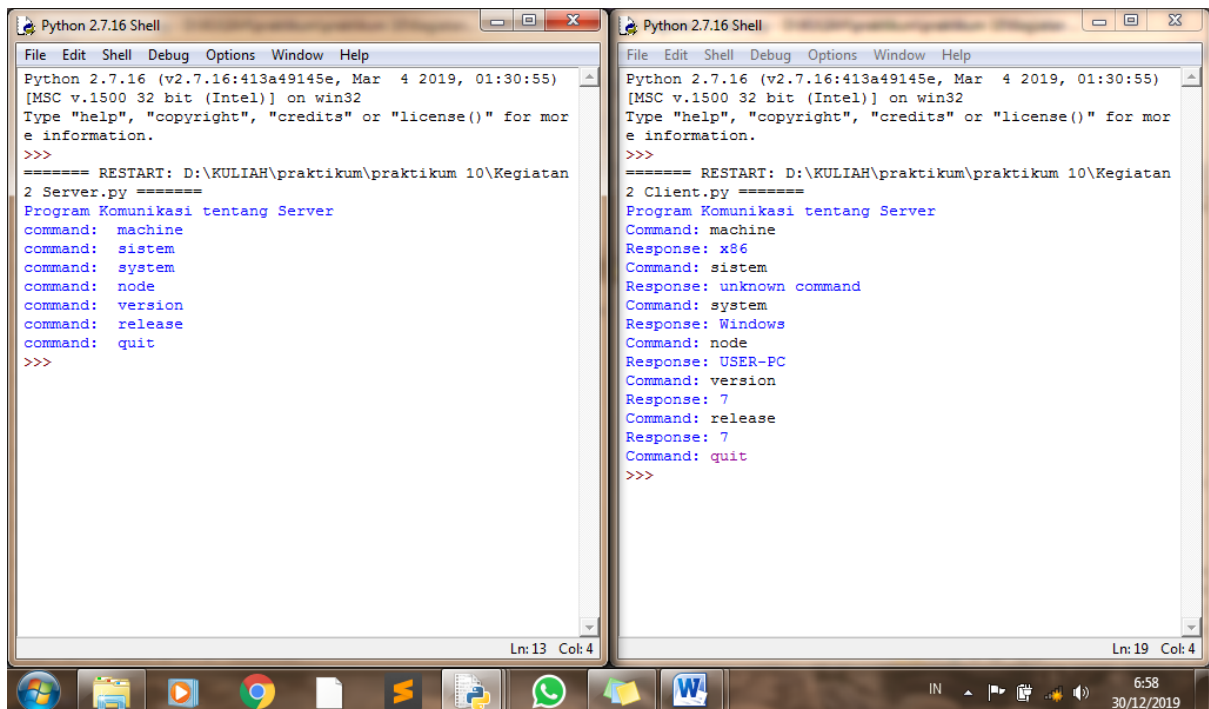
```
Kegiatan 2 Client.py - D:\KULIAH\praktikum\praktikum 10\Kegiatan 2 Client.py (2.7.16)
File Edit Format Run Options Window Help

import socket

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

Ln: 7 Col: 40
7:00
30/12/2019

Tampilan server dan client



```
Python 2.7.16 Shell
File Edit Shell Debug Options Window Help
Python 2.7.16 (v2.7.16:413a49145e, Mar  4 2019, 01:30:55)
[MSC v.1500 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more
information.
>>>
===== RESTART: D:\KULIAH\praktikum\praktikum 10\Kegiatan
2 Server.py =====
Program Komunikasi tentang Server
command: machine
command: sistem
command: system
command: node
command: version
command: release
command: quit
>>>
Ln: 13 Col: 4

Python 2.7.16 Shell
File Edit Shell Debug Options Window Help
Python 2.7.16 (v2.7.16:413a49145e, Mar  4 2019, 01:30:55)
[MSC v.1500 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more
information.
>>>
===== RESTART: D:\KULIAH\praktikum\praktikum 10\Kegiatan
2 Client.py =====
Program Komunikasi tentang Server
Command: machine
Response: x86
Command: sistem
Response: unknown command
Command: system
Response: Windows
Command: node
Response: USER-PC
Command: version
Response: 7
Command: release
Response: 7
Command: quit
>>>
Ln: 19 Col: 4

6:58  
30/12/2019
```

Kegiatan 3. Menghitung luas bangunan geometri

Program di sisi server

```
Kegiatan 3 Server.py - D:\KULIAH\praktikum\praktikum 10\Kegiatan 3 Server.py (2.7.16)
File Edit Format Run Options Window Help

# nama berkas : severtcp3.py
# TCP client : clienttcp3.py
import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(("", 50006))
s.listen(20)
print "Server penghitung volume piramid otomatis siap"
data = ""
kamus = {"sisi":0,
         "tinggi":0,
         "keluar":"OK"}
def hitungvolumepiramid(sisi,tinggi):
    import math
    return str(1/3*sisi*sisi*tinggi)

while data.lower() != "keluar":
    komm, addr = s.accept()
    while data.lower() != "keluar":
        data = komm.recv(1024)
        angka = data.split()
        if data.lower() == "keluar":
            komm.send(kamus[data])
            s.close()
            break
        elif data.lower() == "hitung":
            print "Respon:", data
            komm.send("volume piramid %s adalah %s" %(kamus["sisi"], hitungvolumepiramid(kamus["sisi"], kamus["tinggi"])))
            continue
        print "Respon:", data

Ln: 15 Col: 39
7:09
31/12/2019
```

```
Kegiatan 3 Server.py - D:\KULIAH\praktikum\praktikum 10\Kegiatan 3 Server.py (2.7.16)
File Edit Format Run Options Window Help

"tinggi":0,
"keluar":"OK")
def hitungvolumepiramid(sisi,tinggi):
    import math
    return str(1/3*sisi*sisi*tinggi)

while data.lower() != "keluar":
    komm, addr = s.accept()
    while data.lower() != "keluar":
        data = komm.recv(1024)
        angka = data.split()
        if data.lower() == "keluar":
            komm.send(kamus[data])
            s.close()
            break
        elif data.lower() == "hitung":
            print "Respon:", data
            komm.send("volume piramid %s adalah %s" %(kamus["sisi"], hitungvolumepiramid(kamus["sisi"], kamus["tinggi"])))
            continue
        print "Respon:", data
        for i in kamus:
            if i in data:
                kamus[i] = int(angka[-1])
                komm.send("Parameter dicatat")
                break
            else:
                komm.send("Maaf perintah tidak ada")
s.close()

Ln: 40 Col: 12
7:10
31/12/2019
```

Program di sisi client

```
Kegiatan 3 Client.py - D:\KULIAH\praktikum\praktikum 10\Kegiatan 3 Client.py (2.7.16)
File Edit Format Run Options Window Help

# nama berkas : clienttcp3.py
# TCP server : servertcp3.py
import socket

hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 50006))
print "Mesin Penghitung Volume Piramida Otomatis Sudah Siap"
while pesan.lower() != "keluar":
    pesan = str(raw_input("Respon:"))
    s.send(pesan)
    if pesan.lower() != int:
        response = s.recv(1024)
        print "Respon:", response
    elif pesan.lower() != "keluar":
        response = s.recv(1024)
        print "Respon:", response
        break
s.close()
```

Ln: 21 Col: 0
7:10
31/12/2019

Tampilan di sisi server dan client

```
Python 2.7.16 Shell
File Edit Shell Debug Options Window Help
Python 2.7.16 (v2.7.16:413a49145e, Mar 4 2019, 01:30:55)
[MSC v.1500 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:\KULIAH\praktikum\praktikum 10\Kegiatan
3 Server.py =====
Server penghitung volume piramid otomatis siap
Respon: sisi = 3
Respon: tinggi= 6
Respon: hitung
Respon: quit
>>>

Ln: 10 Col: 4

Python 2.7.16 Shell
File Edit Shell Debug Options Window Help
Python 2.7.16 (v2.7.16:413a49145e, Mar 4 2019, 01:30:55)
[MSC v.1500 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:\KULIAH\praktikum\praktikum 10\Kegiatan
3 Client.py =====
Mesin Penghitung Volume Piramida Otomatis Sudah Siap
Respon:sisi = 3
Respon: Parameter dicatat
Respon:tinggi= 6
Respon: Parameter dicatat
Respon:hitung
Respon: volume piramid 3 adalah 0
Respon:quit
Respon: Maaf perintah tidak ada
Respon:keluar
Respon: OK
>>>

Ln: 16 Col: 4  
7:11  
31/12/2019
```