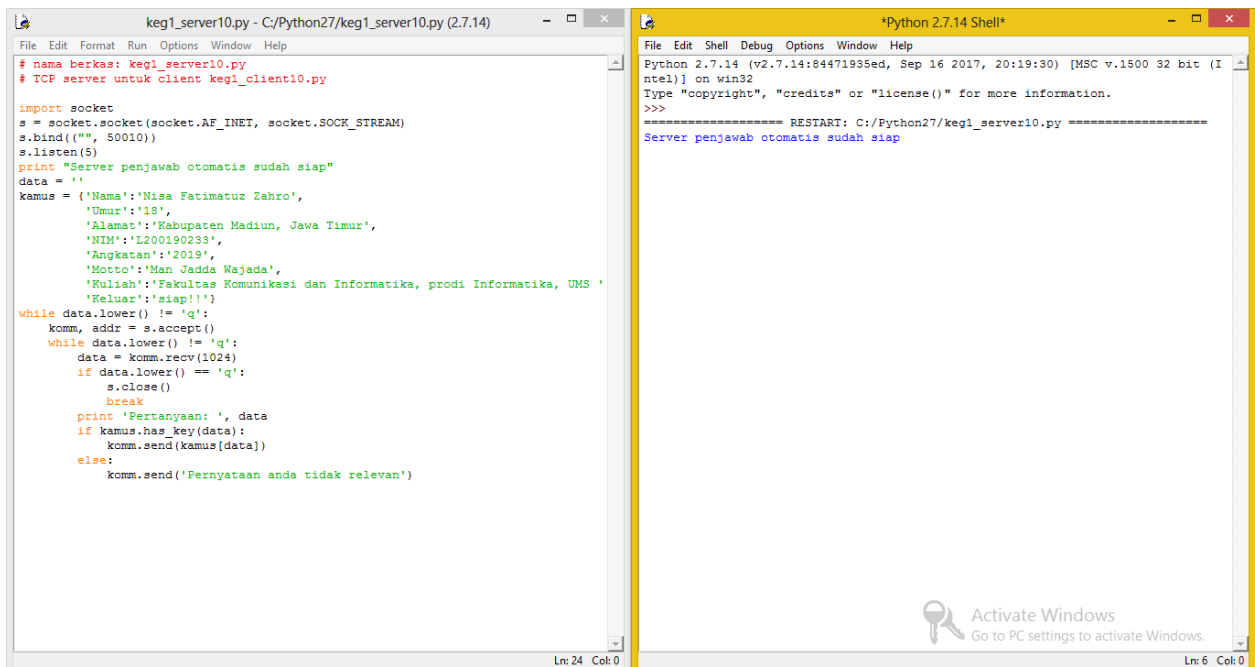


# PRAKTIKUM ALGORITMA DAN PEMROGRAMAN

## MODUL 10

### KEGIATAN 1

Screen shot terminal server:

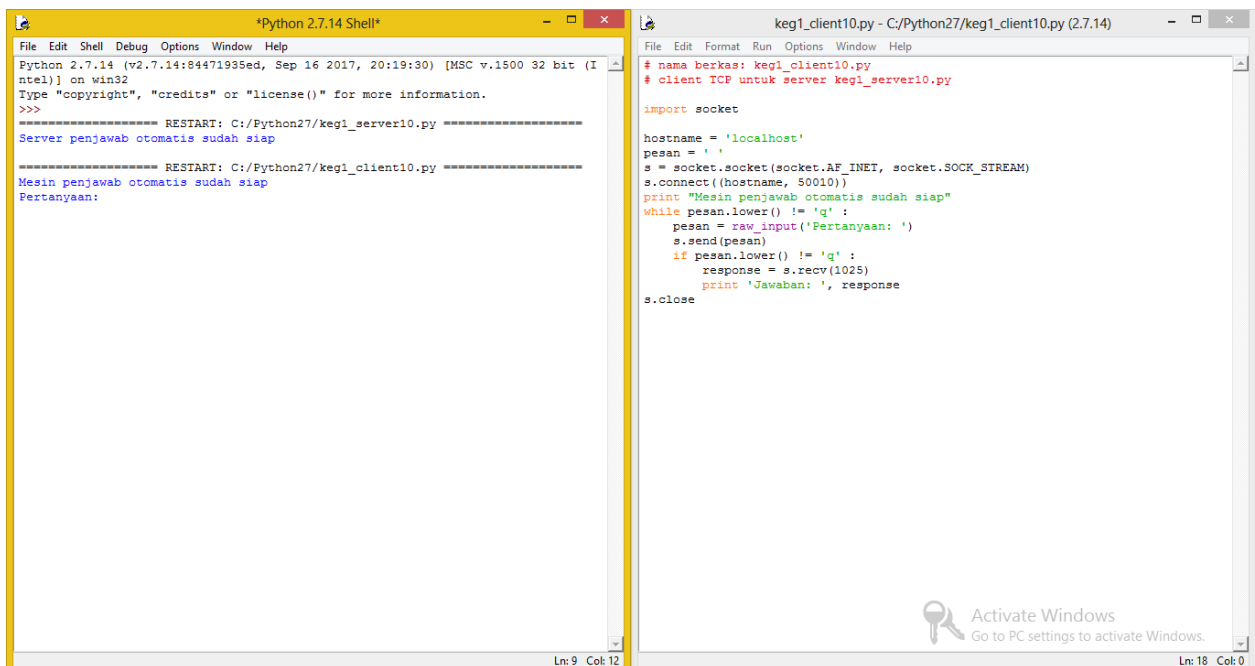


```
File Edit Format Run Options Window Help
# nama berkas: keg1_server10.py
# TCP server untuk client keg1_client10.py

import socket
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 50010))
s.listen(5)
print "Server penjawab otomatis sudah siap"
data = ''
kamus = {'Nama': 'Nisa Fatimatuz Zahro',
        'Umur': '18',
        'Alamat': 'Kabupaten Madiun, Jawa Timur',
        'NIM': 'L200190233',
        'Angkatan': '2019',
        'Motto': 'Man Jadda Wajada',
        'Kuliah': 'Fakultas Komunikasi dan Informatika, prodi Informatika, UMS',
        'Keluar': 'siap!!'}

while data.lower() != 'q':
    kamm, addr = s.accept()
    while data.lower() != 'q':
        data = kamm.recv(1024)
        if data.lower() == 'q':
            s.close()
            break
    print 'Pertanyaan: ', data
    if kamus.has_key(data):
        kamm.send(kamus[data])
    else:
        kamm.send('Pernyataan anda tidak relevan')
```

Screen shot terminal client:



```
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:19:30) [MSC v.1500 32 bit (I
ntel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python27/keg1_server10.py =====
Server penjawab otomatis sudah siap

===== RESTART: C:/Python27/keg1_client10.py =====
Mesin penjawab otomatis sudah siap
Pertanyaan:
```

Python 2.7.14 Shell

```
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:19:30) [MSC v.1500 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python27\keg1_server10.py =====
Server penjawab otomatis sudah siap
Pertanyaan: Name
Pertanyaan: Umur
Pertanyaan: Alamat
Pertanyaan: NIM
Pertanyaan: Angkatan
Pertanyaan: Motto
Pertanyaan: Kuliah
Pertanyaan: Keluar
>>>
```

Ln: 14 Col: 4

Python 2.7.14 Shell

```
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:19:30) [MSC v.1500 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python27\keg1_client10.py =====
Mesin penjawab otomatis sudah siap
Pertanyaan: Nama
Jawaban: Nisa Fatimatuz Zahro
Pertanyaan: Umur
Jawaban: 18
Pertanyaan: Alamat
Jawaban: Kabupaten Madiun, Jawa Timur
Pertanyaan: NIM
Jawaban: L200190233
Pertanyaan: Angkatan
Jawaban: 2019
Pertanyaan: Motto
Jawaban: Man Jadda Wajada
Pertanyaan: Kuliah
Jawaban: Fakultas Komunikasi dan Informatika, prodi Informatika, UMS
Pertanyaan: Keluar
Jawaban: siap!!
Pertanyaan: q
>>> |
```

Ln: 23 Col: 4

## KEGIATAN 2

Screen shot terminal server:

keg2\_server10.py - C:/Python27/keg2\_server10.py (2.7.14)

```
import socket
import platform

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 50080))
s.listen(5)
print ("Server penjawab otomatis sudah siap")
data = ''
kamus = {'machine': platform.machine(),
         'release': platform.release(),
         'system': platform.system(),
         'version': platform.version(),
         'node': platform.node()}

while data.lower() != 'q':
    kcomm, addr = s.accept()
    while data.lower() != 'q':
        data = kcomm.recv(1024)
        if data.lower() == 'q':
            s.close()
            break
    print 'Command: ', data
    if kamus.has_key(data):
        kcomm.send(kamus[data])
    else:
        kcomm.send('Unknown command')
```

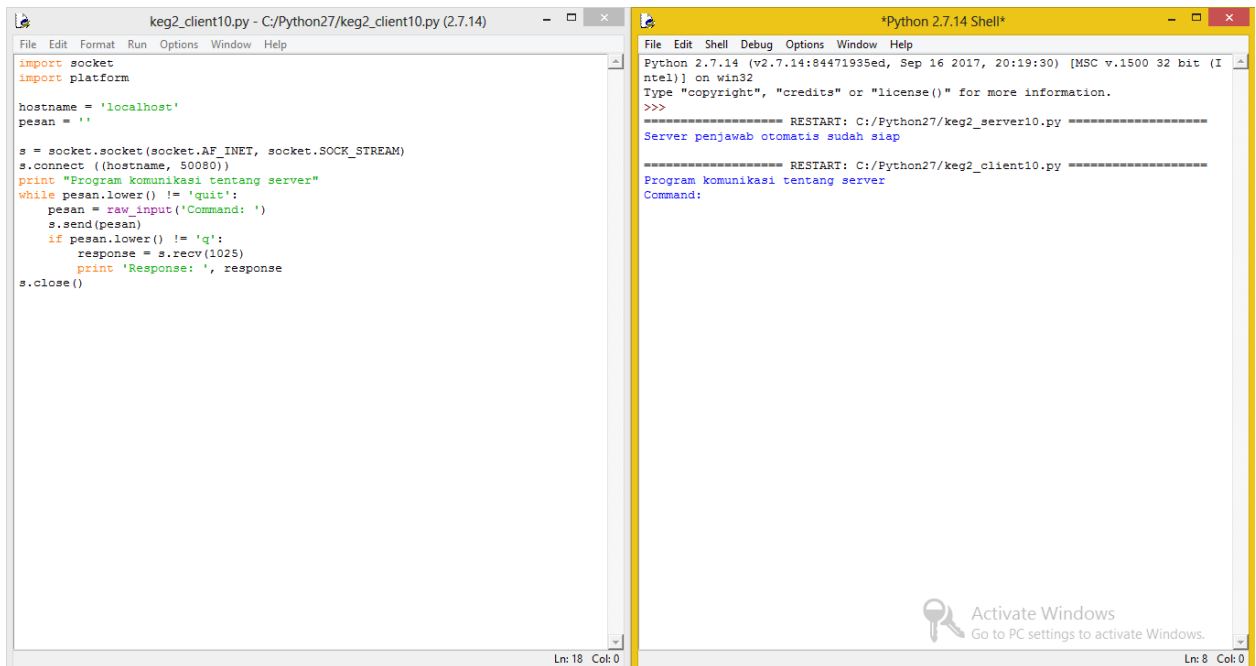
Ln: 10 Col: 23

\*Python 2.7.14 Shell\*

```
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:19:30) [MSC v.1500 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python27/keg2_server10.py =====
Server penjawab otomatis sudah siap
|
```

Ln: 5 Col: 0

## Screen shot terminal client:

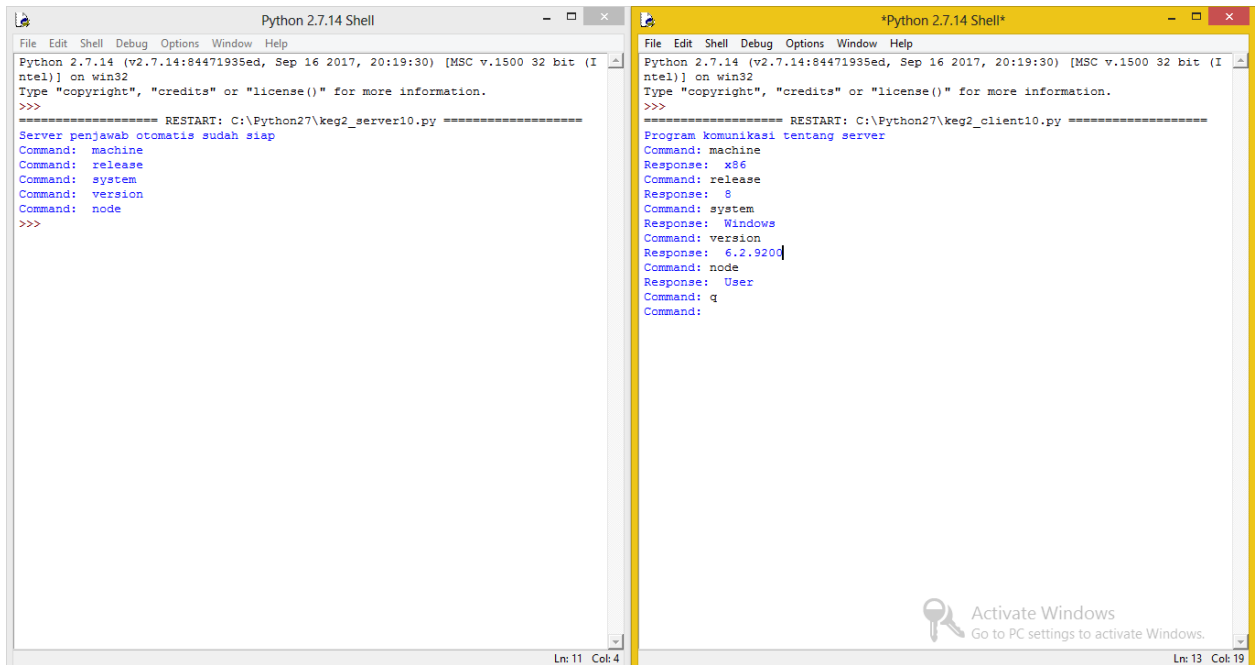


```
File Edit Format Run Options Window Help
import socket
import platform

hostname = 'localhost'
pesan = ''

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect ((hostname, 50080))
print "Program komunikasi tentang server"
while pesan.lower() != 'quit':
    pesan = raw_input('Command: ')
    s.send(pesan)
    if pesan.lower() != 'q':
        response = s.recv(1025)
        print 'Response: ', response
s.close()
```

```
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:19:30) [MSC v.1500 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python27/keg2_server10.py =====
Server penjawab otomatis sudah siap
===== RESTART: C:/Python27/keg2_client10.py =====
Program komunikasi tentang server
Command:
```

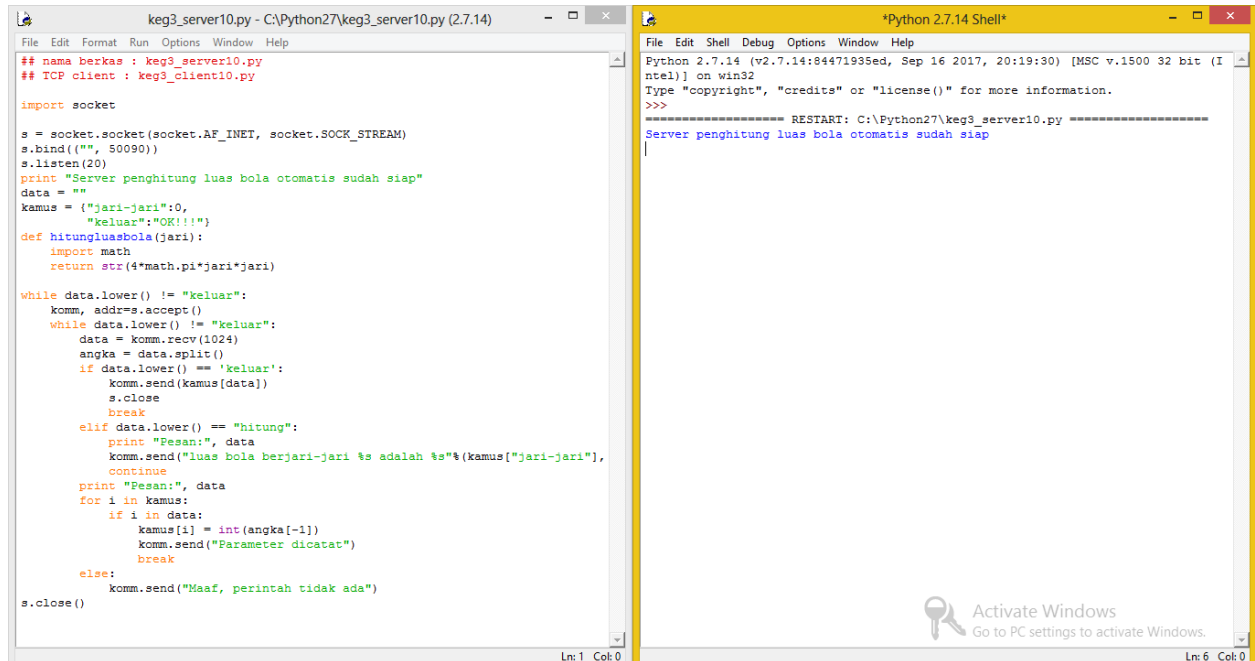


```
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:19:30) [MSC v.1500 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python27/keg2_server10.py =====
Server penjawab otomatis sudah siap
Command: machine
Response: x86
Command: release
Response: 8
Command: system
Response: Windows
Command: version
Response: 6.2.9200
Command: node
Response: User
Command: q
Command:
```

```
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:19:30) [MSC v.1500 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python27/keg2_client10.py =====
Program komunikasi tentang server
Command: machine
Response: x86
Command: release
Response: 8
Command: system
Response: Windows
Command: version
Response: 6.2.9200
Command: node
Response: User
Command: q
Command:
```

## KEGIATAN 3

Screen shot terminal server:



The screenshot shows two windows side-by-side. The left window is titled 'keg3\_server10.py - C:\Python27\keg3\_server10.py (2.7.14)' and contains Python code for a server. The right window is titled '\*Python 2.7.14 Shell\*' and shows the output of the server, including a restart message and a confirmation that the server is ready.

```
File Edit Format Run Options Window Help
## nama berkas : keg3_server10.py
## TCP client : keg3_client10.py

import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 50090))
s.listen(20)
print "Server penghitung luas bola otomatis sudah siap"
data = ""
kamus = {"jari-jari":0,
         "keluar":"OK!!!"}
def hitungluasbola(jari):
    import math
    return str(4*math.pi*jari*jari)

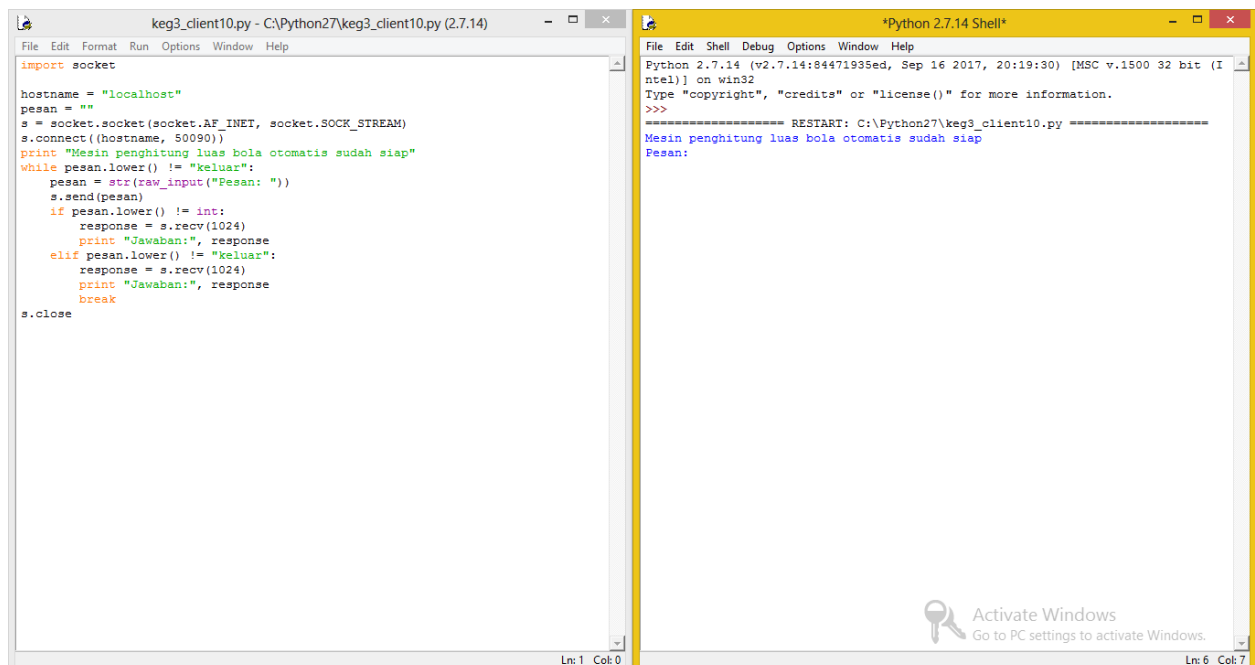
while data.lower() != "keluar":
    komm, addr=s.accept()
    while data.lower() != "keluar":
        data = komm.recv(1024)
        angka = data.split()
        if data.lower() == 'keluar':
            komm.send(kamus[data])
            s.close
            break
        elif data.lower() == "hitung":
            print "Pesan:", data
            komm.send("luas bola berjari-jari %s adalah %s"%(kamus["jari-jari"],
            continue
            print "Pesan:", 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: 1 Col: 0

```
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:19:30) [MSC v.1500 32 bit (I
ntel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python27\keg3_server10.py =====
Server penghitung luas bola otomatis sudah siap
|
```

Ln: 6 Col: 0

Screen shot terminal client:



The screenshot shows two windows side-by-side. The left window is titled 'keg3\_client10.py - C:\Python27\keg3\_client10.py (2.7.14)' and contains Python code for a client. The right window is titled '\*Python 2.7.14 Shell\*' and shows the output of the client, including a restart message and a confirmation that the client is ready.

```
File Edit Format Run Options Window Help
import socket

hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 50090))
print "Mesin penghitung luas bola otomatis sudah siap"
while pesan.lower() != "keluar":
    pesan = str(raw_input("Pesan: "))
    s.send(pesan)
    if pesan.lower() != int:
        response = s.recv(1024)
        print "Jawaban:", response
    elif pesan.lower() != "keluar":
        response = s.recv(1024)
        print "Jawaban:", response
    break
s.close
```

Ln: 1 Col: 0

```
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:19:30) [MSC v.1500 32 bit (I
ntel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python27\keg3_client10.py =====
Mesin penghitung luas bola otomatis sudah siap
Pesan:
```

Ln: 6 Col: 7

```
Python 2.7.14 Shell
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:19:30) [MSC v.1500 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python27\keg3_server10.py =====
Server penghitung luas bola otomatis sudah siap
Pesan: jari-jari = 10
Pesan: hitung
Pesan: jari-jari = 5
Pesan: hitung
>>>
```

```
Python 2.7.14 Shell
File Edit Shell Debug Options Window Help
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:19:30) [MSC v.1500 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python27\keg3_client10.py =====
Mesin penghitung luas bola otomatis sudah siap
Pesan: jari-jari = 10
Jawaban: Parameter dicatat
Pesan: hitung
Jawaban: luas bola berjari-jari 10 adalah 1256.63706144
Pesan: jari-jari = 5
Jawaban: Parameter dicatat
Pesan: hitung
Jawaban: luas bola berjari-jari 5 adalah 314.159265359
Pesan: keluar
Jawaban: OK!!!
>>>
```