

Nama : Romi Ramadhan

NIM : L200190241

Kelas : F

Modul : 10

## Kegiatan 1

### Program di sisi server

```
servertcp.py - C:\Users\USER\Downloads\servertcp.py (2.7.16)
File Edit Format Run Options Window Help

# nama berkas : servertcp.py
# TCP client : clienttcp.py
import socket
import platform
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 20001))
s.listen(2)
print "Server penjawab otomatis siap"
data = ""
kamus = {"nama": "Romi Ramadhan",
         "NIM": "L200190241",
         "angkatan": "2019",}

while data.lower() != "keluar":
    kmm, addr = s.accept()
    while data.lower() != "keluar":
        data = kmm.recv(1024)
        if data.lower() == "keluar":
            kmm.send("OK!!")
            s.close()
            print "Pertanyaan:", data
            break
        print "Pertanyaan:", data
        if kamus.has_key(data):
            kmm.send(kamus[data])
        else:
            kmm.send("Maaf perintah tidak ada")
    s.close()

Ln: 12 Col: 27
```

### Program di sisi client

```
clienttcp.py - C:\Users\USER\Downloads\clienttcp.py (2.7.16)
File Edit Format Run Options Window Help

# nama berkas : clienttcp.py
# TCP server : servertcp.py
import socket

hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 20001))
print "Mesin penjawab otomatis sudah siap"
while pesan.lower() != int:
    pesan = raw_input("Pertanyaan: ")
    s.send(pesan)
    if pesan.lower() != "keluar":
        response = s.recv(1024)
        print "Jawaban:", response
    elif pesan.lower() == "keluar":
        response = s.recv(1024)
        print "Jawaban: OK!!!"
        break
    s.close()

Ln: 1 Col: 0
```

## Terminal di sisi server



```
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: C:\Users\USER\Downloads\servertop.py =====
Server penjawab otomatis siap
Pertanyaan: nama
Pertanyaan: NIM
Pertanyaan: angkatan
Pertanyaan: alamat
Pertanyaan: keluar
>>> |
```

Activate Windows  
Go to Settings to activate Windows.

Ln: 11 Col: 4

## Terminal di sisi 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: C:\Users\USER\Downloads\clienttop.py =====
Mesin penjawab otomatis sudah siap
Pertanyaan: nama
Jawaban: Romli Ramadhan
Pertanyaan: NIM
Jawaban: L200190241
Pertanyaan: angkatan
Jawaban: 2019
Pertanyaan: alamat
Jawaban: Masaf perintah tidak ada
Pertanyaan: keluar
Jawaban: OK!!!
>>>
```

Activate Windows  
Go to Settings to activate Windows.

Ln: 16 Col: 4

# Kegiatan 2

## Program di sisi server

```
servtcp1.py - C:\Users\USER\Downloads\servtcp1.py (2.7.16)
File Edit Format Run Options Window Help
# nama berkas : servtcp1.py
# TCP client : clienttcp1.py
import socket
import platform
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(("", 20003))
s.listen(2)
print "Program server"
data = ""
kamus = {"machine":platform.machine(),
         "release":platform.release(),
         "system":platform.system(),
         "version":platform.version(),
         "node":platform.node(),
         "quit":"OK"}

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

Ln: 11 Col: 27

## Program di sisi client

```
clienttcp1.py - C:\Users\USER\Downloads\clienttcp1.py (2.7.16)
File Edit Format Run Options Window Help
# nama berkas : clienttcp1.py
# TCP server : servtcp1.py
import socket

hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 20003))
print "Program komunikasi tentang server"
while pesan.lower() != "quit":
    pesan = raw_input("Command: ")
    s.send(pesan)
    if pesan.lower() != "quit":
        response = s.recv(1024)
        print "Response:", response
    elif pesan.lower() != "quit":
        response = s.recv(1024)
        print "Response:", response
    break
s.close()
```

Ln: 20 Col: 9

## Terminal di sisi server



```
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: C:\Users\USER\Downloads\servertop1.py =====
Program server
Command: machine
Command: release
Command: system
Command: version
Command: node
Command: password
Command: quit
>>>
```

Activate Windows  
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Ln: 13 Col: 4

## Terminal di sisi 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: C:\Users\USER\Downloads\clienttop1.py =====
Program komunikasi tentang server
Command: machine
Response: RMD64
Command: release
Response: 10
Command: system
Response: Windows
Command: version
Response: 10.0.18362
Command: node
Response: USER-4121F
Command: password
Response: unknown command
Command: quit
Response: OK
>>> |
```

Activate Windows  
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Ln: 20 Col: 4

# Kegiatan 3

## Program di sisi server

```
servertcp2.py - C:/Users/USER/Downloads/servertcp2.py (2.7.16)
File Edit Format Run Options Window Help

# nama berkas : servertcp2.py
# TCP client : clienttcp2.py
import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(("", 20004))
s.listen(20)
print "Server penghitung luas segitiga otomatis siap"
data = ""
kamus = {"alas":0,
         "tinggi":0,
         "keluar":"OK!!"}
def hitungluassegitiga(alas, tinggi):
    return str(alas*tinggi/2)

while data.lower() != "keluar":
    kcomm, addr=s.accept()
    while data.lower() != "keluar":
        data = kcomm.recv(1024)
        angka = data.split()
        if data.lower() == "keluar":
            kcomm.send(kamus[data])
            s.close()
        elif data.lower() == "hitung":
            print "pesan:", data
            kcomm.send("Luas Segitiga beralas %s dan tinggi %s adalah %s"%(kamus["alas"], kamus["tinggi"], hitungluassegitiga(kamus["alas"],kamus["tinggi"])))
            continue
        print "pesan:", data
        for i in kamus:
            if i in data:
                kamus[i] = int(angka[-1])
                kcomm.send("parameter dicatat")
                break
        else:
            kcomm.send("Maaf perintah tidak ada")
    s.close()
```

Ln: 37 Col: 0

## Program di sisi client

```
clienttcp2.py - C:/Users/USER/Downloads/clienttcp2.py (2.7.16)
File Edit Format Run Options Window Help

# nama berkas : clienttcp2.py
# TCP server : servertcp2.py
import socket

hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname,20004))
print "Mesin penghitung luas segitiga otomatis sudah siap"
while pesan.lower() != "keluar":
    pesan = str(raw_input("pesan: "))
    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: 19 Col: 13

## Terminal di sisi server



```
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: C:/Users/USER/Downloads/servertop2.py =====
Server penghitung luas segitiga otomatis siap
pesan: alas = 12
pesan: tinggi = 20
pesan: x
pesan: hitung
```

Activate Windows  
Go to Settings to activate Windows.

Ln: 9 Col: 13

## Terminal di sisi 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: C:/Users/USER/Downloads/clienttop2.py =====
Mesin penghitung luas segitiga otomatis sudah siap
pesan: alas = 12
Respon: parameter dicatat
pesan: tinggi = 20
Respon: parameter dicatat
pesan: x
Respon: Maaf perintah tidak ada
pesan: hitung
Respon: Luas Segitiga beralas 12 dan tinggi 20 adalah 120
pesan: keluar
Respon: -
>>> |
```

Activate Windows  
Go to Settings to activate Windows.

Ln: 16 Col: 4