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## Praktikum Alogaritma dan Pemrograman Modul 10

### Kegiatan 1. Data diri dari server

Program sisi server dan client

```
servertcp.py - D:\Kegiatan 10\Kegiatan 1\servertcp.py (2.7.17)
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(("", 1001))
s.listen(3)
print "Server penjawab otomatis siap"
data = ""
kamus = {"nama": "Lugas Rofanian Arta Margianto",
         "NIM": "L200190228",
         "angkatan": "2019",
         "motto": "Syukuri Apa Yang Ada",
         "kuliah": "Universitas Muhammadiyah Surakarta"}
while data.lower() != "keluar":
    komm, address = s.accept()
    while data.lower() != "keluar":
        data = komm.recv(1024)
        if data.lower() == "keluar":
            komm.send("OK!!!")
            s.close()
            print "Pertanyaan:", data
            break
        print "Pertanyaan:", data
        if kamus.has_key(data):
            komm.send(kamus[data])
        else:
            komm.send("Maaf perintah tidak ada")
s.close()
```

```
clienttcp.py - D:\Kegiatan 10\Kegiatan 1\clienttcp.py (2.7.17)
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, 1001))
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()
```

## Hasil terminal server dan client

```
Python 2.7.17 Shell
File Edit Shell Debug Options Window Help
Python 2.7.17 (v2.7.17:c2f86d86e6, Oct 19 2019, 21:01:17) [MSC v.1500 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\Kegiatan 10\Kegiatan 1\servertcp.py =====
Server penjawab otomatis siap
Pertanyaan: nama
Pertanyaan: NIM
Pertanyaan: angkatan
Pertanyaan: motto
Pertanyaan: kampus
Pertanyaan: kuliah
Pertanyaan: keluar
>>>
```

```
Python 2.7.17 Shell
File Edit Shell Debug Options Window Help
Python 2.7.17 (v2.7.17:c2f86d86e6, Oct 19 2019, 21:01:17) [MSC v.1500 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python27\client.py =====
Mesin penjawab otomatis sudah siap
Pertanyaan: nama
Jawaban: Lukas Rofanian Arte Margianto
Pertanyaan: nim
Jawaban: L200190228
Pertanyaan: angkatan
Jawaban: 2019
Pertanyaan: motto
Jawaban: Syukuri apa yang ada
Pertanyaan: kuliah
Jawaban: Universitas Muhammadiyah Surakarta
Pertanyaan: keluar
Jawaban OK!!!
>>>
```

## Kegiatan 2. Informasi tentang server

### Program sisi server dan client

```
servertcp1.py - D:\Kegiatan 10\Kegiatan 2\servertcp1.py (2.7.17)
File Edit Format Run Options Window Help

# nama berkas : servertcp1.py
# TCP client : clienttcp1.py
import socket
import platform
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 1001))
s.listen(5)
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, address, accept()
    while data.lower() != "quit":
        data = komm.recv(1024)
        if data.lower() == 'quit':
            komm.send(kamus[data])
            print "Pertanyaan:", data
            s.close()
            break
        print "Pertanyaan:", data
        if kamus.has_key(data):
            komm.send(kamus[data])
        else:
            komm.send("Maaf perintah tidak ada")

s.close()
```

```
clienttcp1.py - D:\Kegiatan 10\Kegiatan 2\clienttcp1.py (2.7.17)
File Edit Format Run Options Window Help

# nama berkas : clienttcp1.py
# TCP server : servertcp1.py
import socket

hostname = "localhost"
pesan = ""
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 1001))
print "Program komunikasi tentang server"
while pesan.lower() != "quit":
    pesan = raw_input("Pertanyaan: ")
    s.send(pesan)
    if pesan.lower() != int:
        response = s.recv(1024)
        print "Jawaban:", response
    elif pesan.lower() != "quit":
        response = s.recv(1024)
        print "Jawaban:", response
    break
s.close()
```

## Hasil terminal server dan client

```
Python 2.7.17 Shell
File Edit Shell Debug Options Window Help
Python 2.7.17 (v2.7.17:c2f86d86e6, Oct 19 2019, 21:01:17) [MSC v.1500 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\Kegiatan 10\Kegiatan 2\servertcp1.py =====
Program server
Pertanyaan: machine
Pertanyaan: release
Pertanyaan: system
Pertanyaan: version
Pertanyaan: node
Pertanyaan: quit
>>>
```

```
Python 2.7.17 Shell
File Edit Shell Debug Options Window Help
Python 2.7.17 (v2.7.17:c2f86d86e6, Oct 19 2019, 21:01:17) [MSC v.1500 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\Kegiatan 10\Kegiatan 2\clienttcp1.py =====
Program komunikasi tentang server
Pertanyaan: machine
Jawaban: AMD64
Pertanyaan: release
Jawaban: 10
Pertanyaan: system
Jawaban: Windows
Pertanyaan: version
Jawaban: 10.0.17134
Pertanyaan: node
Jawaban: LAPTOP-7M8BFNL3
Pertanyaan: quit
Jawaban: OK
>>>
```

## Kegiatan 3. Menghitung luas bangun geometri

### Program sisi server dan client

```
servertcp2.py - G:\Kegiatan 10\Kegiatan 3\servertcp2.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(('', 50008))
s.listen(5)
print "Server Ready!"
perintah = ''
a=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 == 'panjang':
                p = int(item[1])
                komm.send('panjang disimpan')
            elif perintah == 'lebar':
                l = int(item[1])
                komm.send('lebar disimpan')
            else:
                komm.send('Pesan tidak diketahui')
        elif perintah == 'hitung':
            h = float(p*l)
            response = 'Luas persegi dengan panjang {} dan lebar {} adalah {}'.format(p,l,h)
            komm.send(response)
        else:
            komm.send('Pesan tidak diketahui')
    s.close()
|
```

Ln: 38 Col: 0

```
clienttcp2.py - G:\Kegiatan 10\Kegiatan 3\clienttcp2.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, 50008))
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()
|
```

Ln: 21 Col: 0

## Hasil terminal server dan client

```
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:\Kegiatan 10\Kegiatan 3\servertop2.py =====
Server Ready!
pesan: panjang
pesan: lebar
pesan: hitung
>>>
```

Ln: 9 Col: 4

```
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:\Kegiatan 10\Kegiatan 3\clienttop2.py =====
Menghitung Luas Persegi
pesan: panjang=9
Response: panjang disimpan
pesan: lebar=7
Response: lebar disimpan
pesan: hitung
Response: Luas persegi dengan panjang 9 dan lebar 7 adalah 63.0
pesan: keluar
Response:-
>>> |
```

Ln: 14 Col: 4