

Praktikum Algoritma dan Pemrograman

Modul 10

Kegiatan 1. Data diri dari server

The image displays a Python socket programming exercise with two windows showing code and their execution results.

Top Left Window: *modul 10-1 serv.py - H:\vigooo\modul 10-1 serv.py (2.7.14)*

```
# nama berkas: p_topser2.py
# TCP Server untuk client p_topcli2.py
import socket
s=socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 5003))
s.listen(3)
print "Server penjawab otomatis sudah siap."
data = ''
kamus={'nama': 'Alvin Vigo Pratama',
       'NIM': 'L200190226',
       'angkatan': "Angkatan '19"}
while data.lower() != 'keluar':
    komm, addr=s.accept()
    while data.lower() != 'keluar':
        data=komm.recv(1024)
        if data.lower()=='keluar':
            s.close()
            break
        print 'Pertanyaan:', data
        if kamus.has_key(data):
            komm.send(kamus[data])
        else:
            komm.send('Maaf, perintah tidak dimengerti')
```

Top Right Window: *modul 10-1 cli.py - H:\vigooo\modul 10-1 cli.py (2.7.14)*

```
# nama berkas: p_topcli2.py
# Client TCP untuk server p_topser2.py
import socket

hostname='localhost'
pesan=''
s=socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 5003))
print "Mesin penjawab otomatis sudah siap"
while pesan.lower() != 'keluar':
    pesan=raw_input('Pertanyaan:')
    s.send(pesan)
    if pesan.lower() != 'keluar':
        response=s.recv(1024)
        print 'Jawaban:', response
    elif pesan.lower()=='keluar':
        print 'siap!!'
s.close()
```

Bottom Left Window: Python 2.7.14 Shell

```
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:25:58) [MSC v.1500 64 bit (AMD
64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: H:\vigooo\modul 10-1 serv.py =====
Server penjawab otomatis sudah siap.
Pertanyaan: nama
Pertanyaan: NIM
Pertanyaan: angkatan
Pertanyaan: asdalfk
>>>
```

Bottom Right Window: Python 2.7.14 Shell

```
Python 2.7.14 (v2.7.14:84471935ed, Sep 16 2017, 20:25:58) [MSC v.1500 64 bit (AMD
64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: H:\vigooo\modul 10-1 cli.py =====
Mesin penjawab otomatis sudah siap
Pertanyaan:nama
Jawaban: Alvin Vigo Pratama
Pertanyaan:NIM
Jawaban: L200190226
Pertanyaan:angkatan
Jawaban: Angkatan '19
Pertanyaan:asdalfk
Jawaban: Maaf, perintah tidak dimengerti
Pertanyaan:keluar
siap!!
>>>
```

Kegiatan 2. Informasi tentang server

The image shows a Python socket server and client interaction. The top row contains two code editors. The left editor, titled 'modul 10-2 serv.py', contains the server code. The right editor, titled 'modul 10-2 cli.py', contains the client code. The bottom row contains two terminal windows. The left terminal, titled 'Python 2.7.14 Shell', shows the output of the server script, which is a series of commands and responses. The right terminal, also titled 'Python 2.7.14 Shell', shows the output of the client script, which is a series of commands and responses.

```
modul 10-2 serv.py - H:\vigooo\modul 10-2 serv.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(("", 543))
s.listen(5)
print "Program komunikasi tentang server"
perintah=""

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

modul 10-2 cli.py - H:\vigooo\modul 10-2 cli.py (2.7.14)
File Edit Format Run Options Window Help
import socket

hostname='localhost'
respon=""
s=socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 543))
print "Program komunikasi tentang server"
while respon.lower() != 'quit':
    respon=raw_input('Command:')
    s.send(respon)
    if respon.lower() != 'quit':
        response=s.recv(1024)
        print 'Response:', response

s.close()

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 (AMD
64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: H:\vigooo\modul 10-2 serv.py =====
Program komunikasi tentang server
Command: machine
Command: system
Command: release
Command: version
Command: node
>>>

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 (AMD
64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: H:\vigooo\modul 10-2 cli.py =====
Program komunikasi tentang server
Command:machine
Response: AMD64
Command:system
Response: Windows
Command:release
Response: 10
Command:version
Response: 10.0.17134
Command:node
Response: LAPTOP-BOTRFTUE
Command:quit
>>>
```

Kegiatan 3. Menghitung luas bangun geometri

```
modul 10-3 serv.py - H:\vigooo\modul 10-3 serv.py (2.7.14)
File Edit Format Run Options Window Help

import socket

s=socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind(('', 593))
s.listen(5)
print "Server sudah siap"

jawab=""
a=0
t=0
while jawab != "keluar":
    komm,addr=s.accept()
    while jawab != "keluar":
        data=komm.recv(1024).lower().split(" ")
        jawab=data[0]
        if jawab=="keluar":
            komm.send("done")
            s.close()
            break
        print "Pesan:",jawab
        if len(data)==2:
            if jawab=="alas":
                a=int(data[1])
                komm.send("Alas disimpan")
            elif perintah=="tinggi":
                t=int(data[1])
                komm.send("Tinggi disimpan")
            else:
                komm.send("Pesan tidak diketahui")
        elif jawab=="hitung":
            l=float(a*t)
            response="Luas jajar genjang dengan alas () dan tinggi () adalah ()".format(l)
            komm.send(response)
        else:
            komm.send("Pesan tidak diketahui")

modul 10-3 cli.py - H:\vigooo\modul 10-3 cli.py (2.7.14)
File Edit Format Run Options Window Help

import socket

hostname='localhost'
perintah=""
s=socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((hostname, 593))
print "Menghitung Luas Jajar Genjang"
while perintah.lower() != 'keluar':
    perintah=raw_input("Perintah:")
    s.send(perintah)
    if perintah.lower()=='keluar':
        response=s.recv(1024)
        print "Jawab: -"
        s.close()
        break
    elif perintah.lower() != 'keluar':
        response=s.recv(1024)
        print "Jawab:", response
s.close()

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: H:\vigooo\modul 10-3 serv.py =====
Server sudah siap

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: H:\vigooo\modul 10-3 cli.py =====
Menghitung Luas Jajar Genjang
Perintah:
```

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