Ujian Akhir Semester (UAS)
Nathanael Christian Situmeang
190402142
Pemrograman Komputer D

1. Mixing variable, konstanta, string, list, dict, def, opsional object dan beberapa trik lainnya.

nathanaelcs.py

```python
# UAS PEMROGRAMAN KOMPUTER D

# PROGRAM GAME

import random
z = random.randrange(1, 6)
x = random.randrange(1, 6)

print('''Selamat Datang di Game Random Fighter

Karakter Hero :
1. Penyerang
2. Bertahan''')

opsi = int(input('Pilih Kategori Hero (Masukan Angka) :'))

if opsi == 1:
    print('''
Hero :''')
    hero = ['1. Martis', '2. Alucard']
    a, b = hero
    print(a)
    print(b)
    pilihan = int(input('Pilih Hero anda (Masukan Angka) :'))

    if pilihan == 1:
        print('''
Pertarungan Dimulai!!!''')

        class fighter:
```

```python
        def __init__(self, nama, power):
            self.nama = nama
            self.power = power

        def tampilkan_profil(self):
            print("   Nama  : ", self.nama)
            print("   Power : ", self.power)

    fighter1 = fighter("Martis", z)
    fighter2 = fighter("Alucard", x)

    print('1. Hero')
    fighter1.tampilkan_profil()
    print('2. Hero')
    fighter2.tampilkan_profil()

    player1 = {'name': 'Martis', 'power': z + 1}
    player2 = {'name': 'Alucard', 'power': x}
    def attack(attacker, defender):
        if (attacker['power'] > defender['power']):
            print('WIN')
        else:
            print('LOSE')
    attack(player1, player2)

elif pilihan == 2:
    print('''
Pertarungan Dimulai!!!''')

    class fighter:

        def __init__(self, nama, power):
            self.nama = nama
            self.power = power
```

```python
        def tampilkan_profil(self):
            print("   Nama  : ", self.nama)
            print("   Power : ", self.power)

        fighter1 = fighter("Martis", z)
        fighter2 = fighter("Alucard", x)

        print('1. Hero')
        fighter1.tampilkan_profil()
        print('2. Hero')
        fighter2.tampilkan_profil()

        player1 = {'name': 'Martis', 'power': z - 1}
        player2 = {'name': 'Alucard', 'power': x}
        def attack(attacker, defender):
            if (attacker['power'] > defender['power']):
                print('WIN')
            else:
                print('LOSE')
        attack(player2, player1)

    else:
        print('unknown')

elif opsi == 2:
    print('''
Hero :''')
    hero = ['1. Martis', '2. Alucard']
    a, b = hero
    print(a)
    print(b)
    pilihan = int(input('Pilih Hero anda (Masukan Angka) :'))

    if pilihan == 1:
```

```python
        print('''
Pertarungan Dimulai!!!''')

        class fighter:

            def __init__(self, nama, defend):
                self.nama = nama
                self.defend = defend

            def tampilkan_profil(self):
                print("   Nama  : ", self.nama)
                print("   Defend : ", self.defend)


        fighter1 = fighter("Martis", z)
        fighter2 = fighter("Alucard", x)

        print('1. Hero')
        fighter1.tampilkan_profil()
        print('2. Hero')
        fighter2.tampilkan_profil()

        player1 = {'name': 'Martis', 'defend': z}
        player2 = {'name': 'Alucard', 'defend': x - 1}
        def defend(attacker, defender):
            if (attacker['defend'] < defender['defend']):
                print('WIN')
            else:
                print('LOSE')
        defend(player2, player1)

    elif pilihan == 2:
        print('''
Pertarungan Dimulai!!!''')
```

```python
class fighter:

    def __init__(self, nama, defend):
        self.nama = nama
        self.defend = defend

    def tampilkan_profil(self):
        print("  Nama  : ", self.nama)
        print("  Defend : ", self.defend)

fighter1 = fighter("Martis", z)
fighter2 = fighter("Alucard", x)

print('1. Hero')
fighter1.tampilkan_profil()
print('2. Hero')
fighter2.tampilkan_profil()

player1 = {'name': 'Martis', 'defend': z}
player2 = {'name': 'Alucard', 'defend': x + 1}
def defend(attacker, defender):
    if (attacker['defend'] < defender['defend']):
        print('WIN')
    else:
        print('LOSE')
defend(player1, player2)

else:
    print('unknown')

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```

```python
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# PROGRAM GAME

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    a, b = hero
    print(a)
    print(b)
    pilihan = int(input('Pilih Hero anda (Masukan Angka) :'))

    if pilihan == 1:
        print('''
```

```python
    print('''
Pertarungan Dimulai!!!''')

        class fighter:

            def __init__(self, nama, power):
                self.nama = nama
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            def tampilkan_profil(self):
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        fighter1 = fighter("Martis", z)
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        print('1. Hero')
        fighter1.tampilkan_profil()
        print('2. Hero')
        fighter2.tampilkan_profil()

        player1 = {'name': 'Martis', 'power': z + 1}
        player2 = {'name': 'Alucard', 'power': x}
        def attack(attacker, defender):
            if (attacker['power'] > defender['power']):
                print('WIN')
            else:
```

```python
        else:
            print('LOSE')
    attack(player1, player2)

elif pilihan == 2:
    print('''
Pertarungan Dimulai!!!''')

    class fighter:

        def __init__(self, nama, power):
            self.nama = nama
            self.power = power

        def tampilkan_profil(self):
            print("   Nama  : ", self.nama)
            print("   Power : ", self.power)

    fighter1 = fighter("Martis", z)
    fighter2 = fighter("Alucard", x)

    print('1. Hero')
    fighter1.tampilkan_profil()
    print('2. Hero')
    fighter2.tampilkan_profil()

    player1 = {'name': 'Martis', 'power': z - 1}
```

```python
    player1 = {'name': 'Martis', 'power': z - 1}
    player2 = {'name': 'Alucard', 'power': x}
    def attack(attacker, defender):
        if (attacker['power'] > defender['power']):
            print('WIN')
        else:
            print('LOSE')
    attack(player2, player1)

    else:
        print('unknown')

elif opsi == 2:
    print('''
Hero :''')
    hero = ['1. Martis', '2. Alucard']
    a, b = hero
    print(a)
    print(b)
    pilihan = int(input('Pilih Hero anda (Masukan Angka) :'))

    if pilihan == 1:
        print('''
Pertarungan Dimulai!!!''')

        class fighter:
```

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pythonProject > nathanaelcs.py

```python
class fighter:

    def __init__(self, nama, defend):
        self.nama = nama
        self.defend = defend

    def tampilkan_profil(self):
        print("    Nama   : ", self.nama)
        print("    Defend : ", self.defend)


fighter1 = fighter("Martis", z)
fighter2 = fighter("Alucard", x)

print('1. Hero')
fighter1.tampilkan_profil()
print('2. Hero')
fighter2.tampilkan_profil()

player1 = {'name': 'Martis', 'defend': z}
player2 = {'name': 'Alucard', 'defend': x - 1}
def defend(attacker, defender):
    if (attacker['defend'] < defender['defend']):
        print('WIN')
    else:
        print('LOSE')
defend(player2, player1)
```

elif opsi == 2 > if pilihan == 1 > defend() > else

129:18   CRLF   UTF-8   4 spaces   Python 3.8 (pythonProject)

9:00 AM 6/10/2021

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pythonProject > nathanaelcs.py

Run: nathanaelcs.py

```
C:\Users\acer\PycharmProjects\pythonProject\venv\Scripts\python.exe C:/Users/acer/PycharmProjects/pythonProject/nathanaelcs.py
Selamat Datang di Game Random Fighter

Karakter Hero :
1. Penyerang
2. Bertahan
Pilih Kategori Hero (Masukan Angka) :1

Hero :
1. Martis
2. Alucard
Pilih Hero anda (Masukan Angka) :2

Pertarungan Dimulai!!!
1. Hero
    Nama  :  Martis
    Power :  4
2. Hero
    Nama  :  Alucard
    Power :  5
WIN


Process finished with exit code 0
```

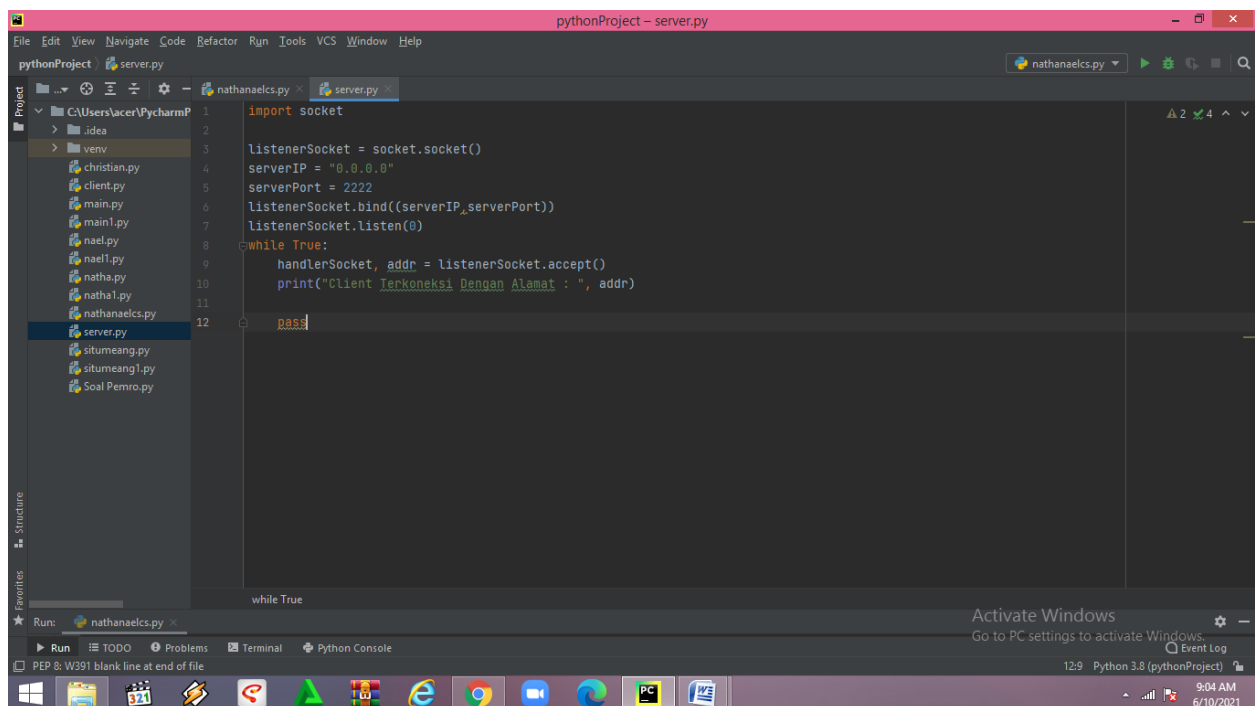24:1   CRLF   UTF-8   4 spaces   Python 3.8 (pythonProject)

9:01 AM 6/10/2021

2. Socket (server and client)

server.py

```python
import socket

listenerSocket = socket.socket()
serverIP = "0.0.0.0"
serverPort = 2222
listenerSocket.bind((serverIP,serverPort))
listenerSocket.listen(0)
while True:
    handlerSocket, addr = listenerSocket.accept()
    print("Client Terkoneksi Dengan Alamat : ", addr)

    pass
```

client.py

```python
import socket

handlerSocket = socket.socket()
serverIP = "127.0.0.1"
serverPort = 2222

handlerSocket.connect((serverIP,serverPort))
print("Terkoneksi Dengan Server")
```