

Nama : Alif Al Amin

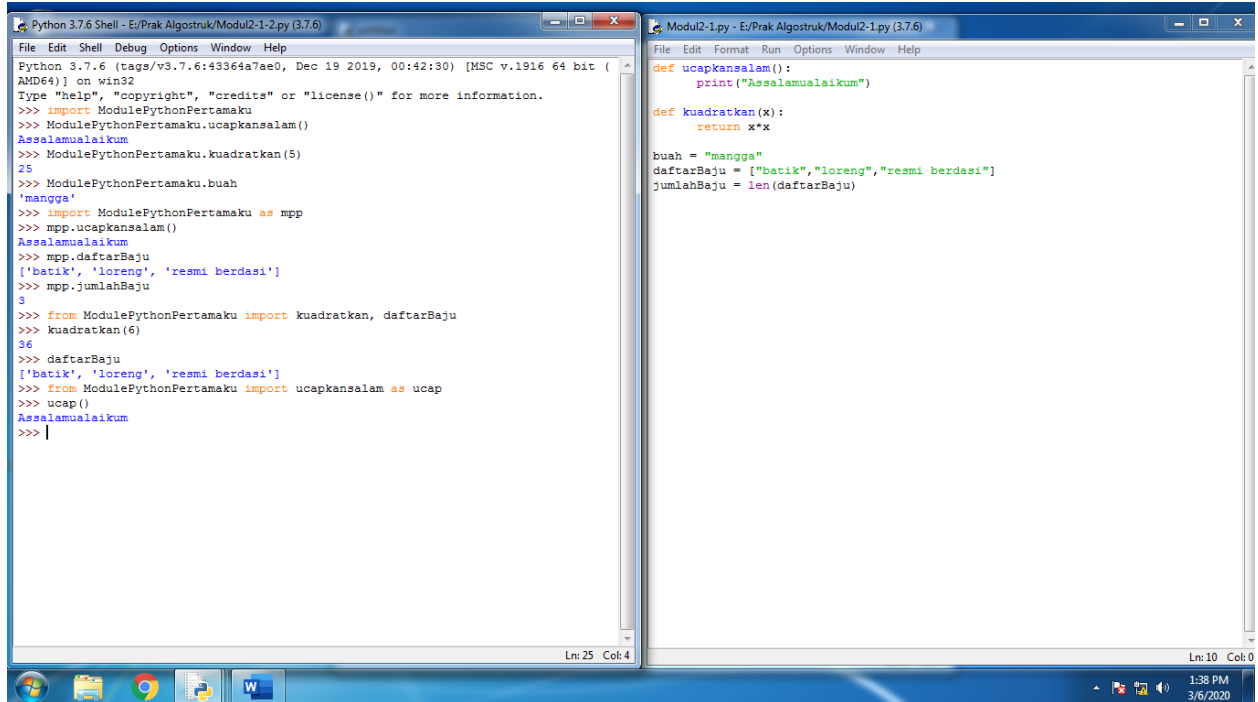
NIM : L200180082

Kelas : C

Modul 2

Latihan

1. Latihan 2.1



The image shows a screenshot of a Windows desktop with two open windows. The left window is a Python 3.7.6 Shell titled 'Python 3.7.6 Shell - E:/Prak Algostruk/Modul2-1-2.py (3.7.6)'. It displays the following code and output:

```
Python 3.7.6 (tags/v3.7.6:43364a7ae0, Dec 19 2019, 00:42:30) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>> import ModulePythonPertamaku
>>> ModulePythonPertamaku.ucapkansalam()
Assalamualaikum
>>> ModulePythonPertamaku.kuadratkan(5)
25
>>> ModulePythonPertamaku.buah
'mangga'
>>> import ModulePythonPertamaku as mpp
>>> mpp.ucapkansalam()
Assalamualaikum
>>> mpp.daftarBaju
['batik', 'loreng', 'resmi berdasi']
>>> mpp.jumlahBaju
3
>>> from ModulePythonPertamaku import kuadratkan, daftarBaju
>>> kuadratkan(6)
36
>>> daftarBaju
['batik', 'loreng', 'resmi berdasi']
>>> from ModulePythonPertamaku import ucapkansalam as ucap
>>> ucap()
Assalamualaikum
>>> |
```

The right window is a Python script file titled 'Modul2-1.py - E:/Prak Algostruk/Modul2-1.py (3.7.6)'. It contains the following code:

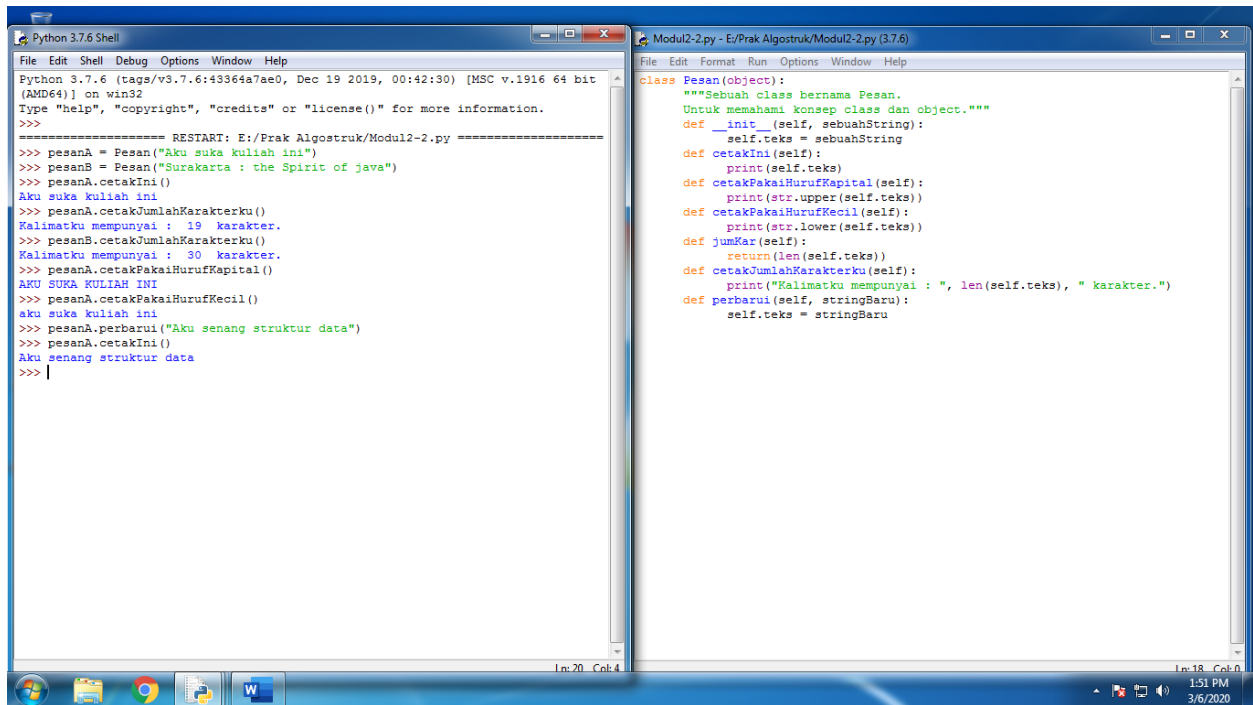
```
def ucapkansalam():
    print("Assalamualaikum")

def kuadratkan(x):
    return x*x

buah = "mangga"
daftarBaju = ["batik", "loreng", "resmi berdasi"]
jumlahBaju = len(daftarBaju)
```

The taskbar at the bottom shows the Windows Start button, taskbar icons for File Explorer, Google Chrome, and Microsoft Word, and a system tray with the date and time (1:38 PM, 3/6/2020).

2. Latihan 2.2



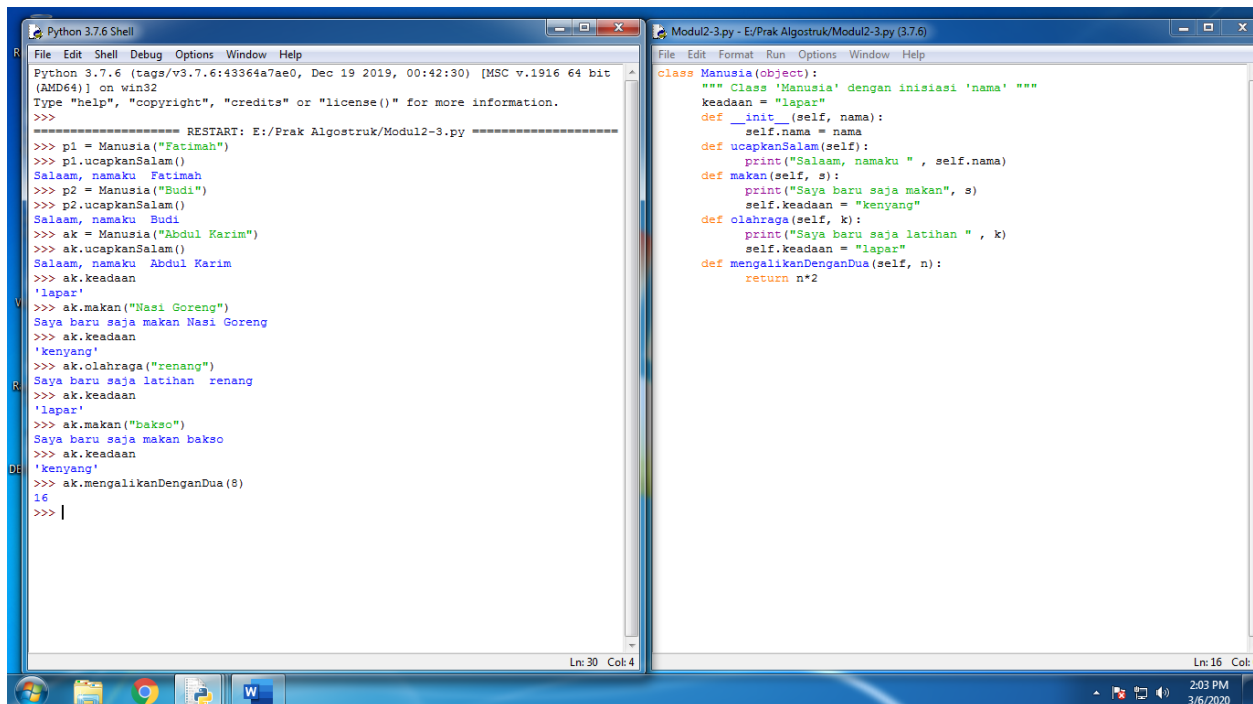
The screenshot shows two windows from a Windows desktop. The left window is a 'Python 3.7.6 Shell' with the following code:

```
Python 3.7.6 (tags/v3.7.6:43364a7ae0, Dec 19 2019, 00:42:30) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:/Prak Algotruk/Modul2-2.py =====
>>> pesanA = Pesan("Aku suka kuliah ini")
>>> pesanB = Pesan("Surakarta : the Spirit of java")
>>> pesanA.cetakIni()
Aku suka kuliah ini
>>> pesanA.cetakJumlahKarakterku()
Kalimatku mempunyai : 19 karakter.
>>> pesanB.cetakJumlahKarakterku()
Kalimatku mempunyai : 30 karakter.
>>> pesanA.cetakPakaiHurufKapital()
AKU SUKA KULIAH INI
>>> pesanA.cetakPakaiHurufKecil()
aku suka kuliah ini
>>> pesanA.perbarui("Aku senang struktur data")
>>> pesanA.cetakIni()
Aku senang struktur data
>>> |
```

The right window is a Python script editor titled 'Modul2-2.py - E:/Prak Algotruk/Modul2-2.py (3.7.6)' containing the following code:

```
class Pesan(object):
    """Sebuah class bernama Pesan.
    Untuk memahami konsep class dan object."""
    def __init__(self, sebuahString):
        self.teks = sebuahString
    def cetakIni(self):
        print(self.teks)
    def cetakPakaiHurufKapital(self):
        print(str.upper(self.teks))
    def cetakPakaiHurufKecil(self):
        print(str.lower(self.teks))
    def jumKar(self):
        return len(self.teks)
    def cetakJumlahKarakterku(self):
        print("Kalimatku mempunyai : ", len(self.teks), " karakter.")
    def perbarui(self, stringBaru):
        self.teks = stringBaru
```

3. Latihan 2.3



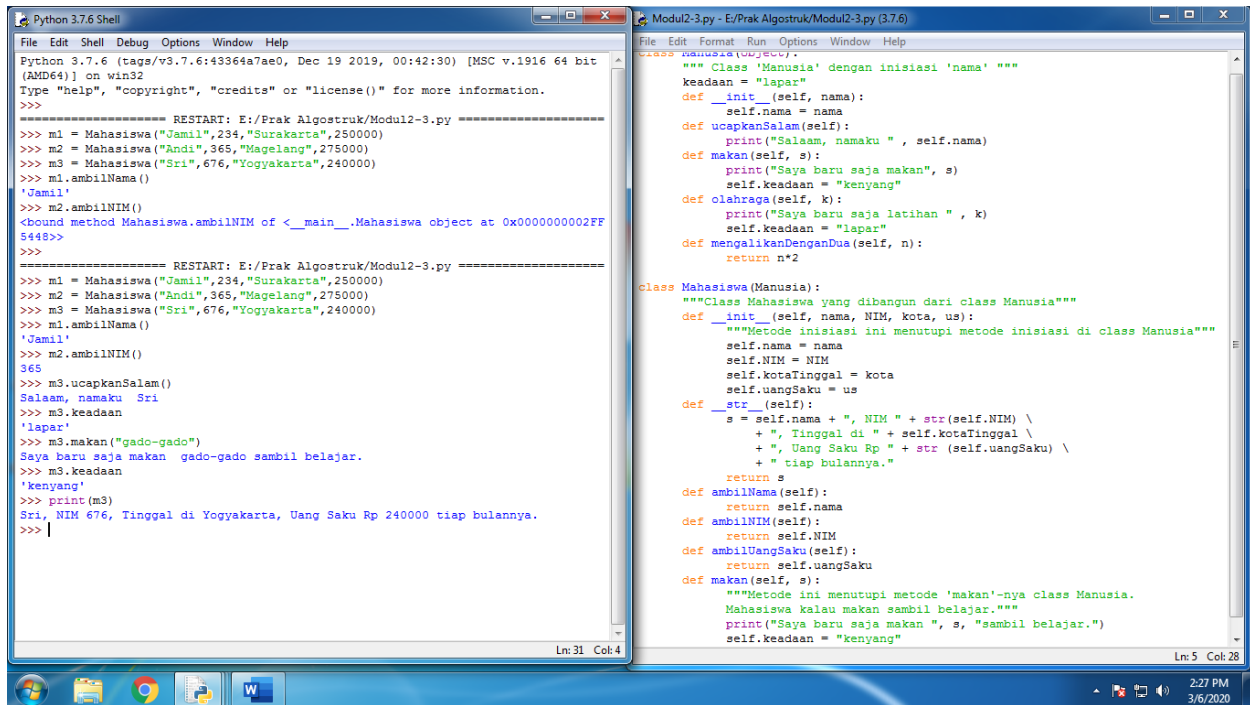
The screenshot shows two windows from a Windows desktop. The left window is a 'Python 3.7.6 Shell' with the following code:

```
Python 3.7.6 (tags/v3.7.6:43364a7ae0, Dec 19 2019, 00:42:30) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:/Prak Algotruk/Modul2-3.py =====
>>> p1 = Manusia("Fatimah")
>>> p1.ucapkanSalam()
Salaam, namaku Fatimah
>>> p2 = Manusia("Budi")
>>> p2.ucapkanSalam()
Salaam, namaku Budi
>>> ak = Manusia("Abdul Karim")
>>> ak.ucapkanSalam()
Salaam, namaku Abdul Karim
>>> ak.keadaan
'lapar'
>>> ak.makan("Nasi Goreng")
Saya baru saja makan Nasi Goreng
>>> ak.keadaan
'kenyang'
>>> ak.olahraga("renang")
Saya baru saja latihan renang
>>> ak.keadaan
'lapar'
>>> ak.makan("bakso")
Saya baru saja makan bakso
>>> ak.keadaan
'kenyang'
>>> ak.mengalikanDenganDua(8)
16
>>> |
```

The right window is a Python script editor titled 'Modul2-3.py - E:/Prak Algotruk/Modul2-3.py (3.7.6)' containing the following code:

```
class Manusia(object):
    """ Class 'Manusia' dengan inisiasi 'nama' """
    keadaan = "lapar"
    def __init__(self, nama):
        self.nama = nama
    def ucapkanSalam(self):
        print("Salaam, namaku ", self.nama)
    def makan(self, s):
        print("Saya baru saja makan", s)
        self.keadaan = "kenyang"
    def olahraga(self, k):
        print("Saya baru saja latihan ", k)
        self.keadaan = "lapar"
    def mengalikanDenganDua(self, n):
        return n*2
```

4. Latihan 2.4

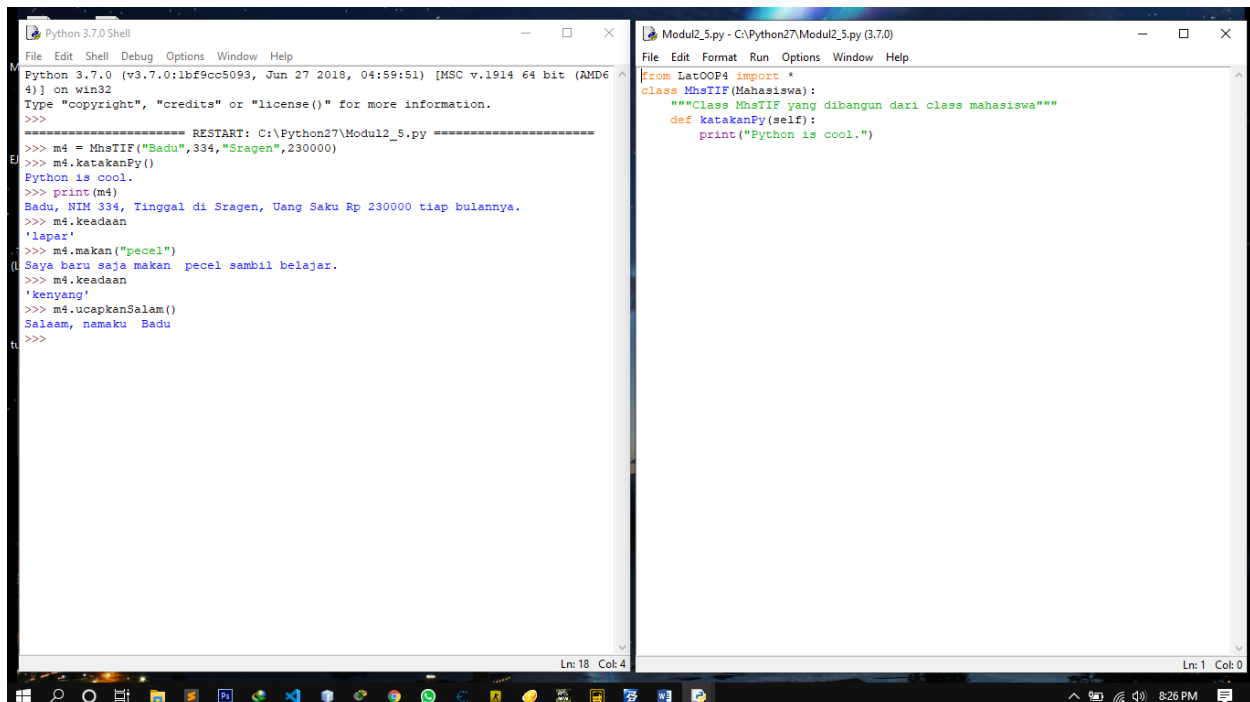


```
Python 3.7.6 Shell
File Edit Shell Debug Options Window Help
Python 3.7.6 (tags/v3.7.6:43364a7ae0, Dec 19 2019, 00:42:30) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:/Prak Algostruk/Modul2-3.py =====
>>> m1 = Mahasiswa("Jamil",234,"Surakarta",250000)
>>> m2 = Mahasiswa("Andi",365,"Magelang",275000)
>>> m3 = Mahasiswa("Sri",676,"Yogyakarta",240000)
>>> m1.ambilNama()
'Jamil'
>>> m2.ambilNIM()
365
<bound method Mahasiswa.ambilNIM of <_main_.Mahasiswa object at 0x000000002FF
5448>>
>>>
===== RESTART: E:/Prak Algostruk/Modul2-3.py =====
>>> m1 = Mahasiswa("Jamil",234,"Surakarta",250000)
>>> m2 = Mahasiswa("Andi",365,"Magelang",275000)
>>> m3 = Mahasiswa("Sri",676,"Yogyakarta",240000)
>>> m1.ambilNama()
'Jamil'
>>> m2.ambilNIM()
365
>>> m3.ucapkanSalam()
Salaam, namaku Sri
>>> m3.keadaan
'lapar'
>>> m3.makan("gado-gado")
Saya baru saja makan gado-gado sambil belajar.
>>> m3.keadaan
'kenyang'
>>> print(m3)
Sri, NIM 676, Tinggal di Yogyakarta, Uang Saku Rp 240000 tiap bulannya.
>>> |

Modul2-3.py - E:/Prak Algostruk/Modul2-3.py (3.7.6)
File Edit Format Run Options Window Help
class Manusia(object):
    """Class 'Manusia' dengan inisiasi 'nama'"""
    keadaan = "lapar"
    def __init__(self, nama):
        self.nama = nama
    def ucapkanSalam(self):
        print("Salaam, namaku ", self.nama)
    def makan(self, s):
        print("Saya baru saja makan", s)
        self.keadaan = "kenyang"
    def olahraga(self, k):
        print("Saya baru saja latihan ", k)
        self.keadaan = "lapar"
    def mengalikanDua(self, n):
        return n*2

class Mahasiswa(Manusia):
    """Class Mahasiswa yang dibangun dari class Manusia"""
    def __init__(self, nama, NIM, kota, us):
        """Metode inisiasi ini menutupi metode inisiasi di class Manusia"""
        self.nama = nama
        self.NIM = NIM
        self.kotaTinggal = kota
        self.uangSaku = us
    def __str__(self):
        s = self.nama + ", NIM " + str(self.NIM) \
            + ", Tinggal di " + self.kotaTinggal \
            + ", Uang Saku Rp " + str(self.uangSaku) \
            + " tiap bulannya."
        return s
    def ambilNama(self):
        return self.nama
    def ambilNIM(self):
        return self.NIM
    def ambilUangSaku(self):
        return self.uangSaku
    def makan(self, s):
        """Metode ini menutupi metode 'makan'-nya class Manusia.
        Mahasiswa kalau makan sambil belajar."""
        print("Saya baru saja makan ", s, "sambil belajar.")
        self.keadaan = "kenyang"
```

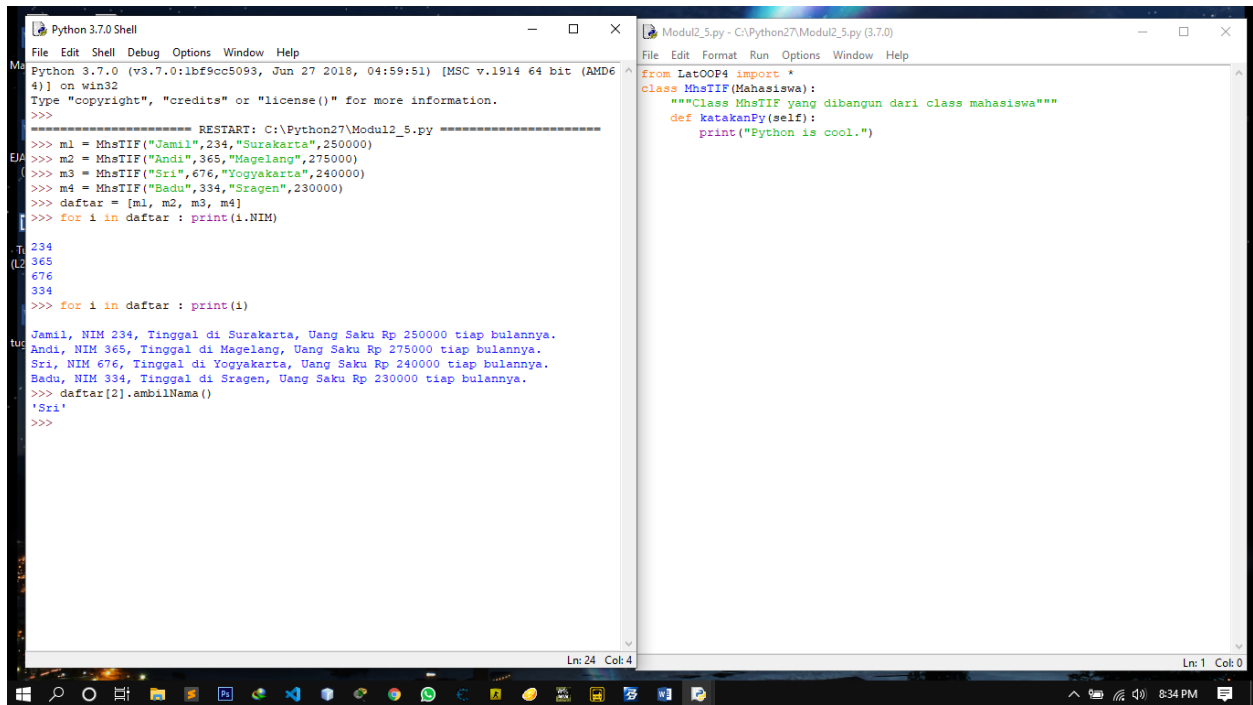
5. Latihan 2.5



```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bbf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD6
4)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python27\Modul2_5.py =====
>>> m4 = MhsTIF("Badu",334,"Sragen",230000)
>>> m4.katakanPy()
Python is cool.
>>> print(m4)
Badu, NIM 334, Tinggal di Sragen, Uang Saku Rp 230000 tiap bulannya.
>>> m4.keadaan
'lapar'
>>> m4.makan("pecel")
Saya baru saja makan pecel sambil belajar.
>>> m4.keadaan
'kenyang'
>>> m4.ucapkanSalam()
Salaam, namaku Badu
>>>

Modul2_5.py - C:\Python27\Modul2_5.py (3.7.0)
File Edit Format Run Options Window Help
from LatOOP4 import *
class MhsTIF(Mahasiswa):
    """Class MhsTIF yang dibangun dari class mahasiswa"""
    def katakanPy(self):
        print("Python is cool.")
```

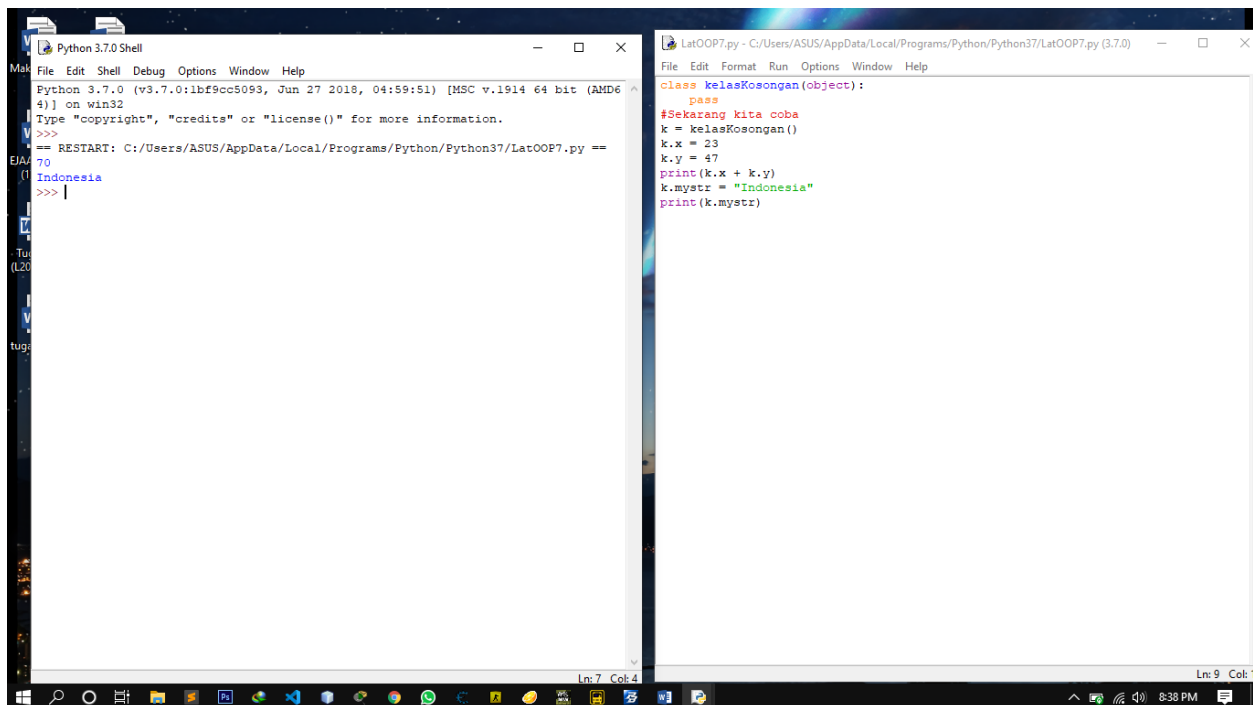
6. Latihan 2.6



```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python27\Modul2_5.py =====
>>> m1 = MhsTIF("Jamil",234,"Surakarta",250000)
>>> m2 = MhsTIF("Andi",365,"Magelang",275000)
>>> m3 = MhsTIF("Sri",676,"Yogyakarta",240000)
>>> m4 = MhsTIF("Badu",334,"Sragen",230000)
>>> daftar = [m1, m2, m3, m4]
>>> for i in daftar : print(i.NIM)
234
365
676
334
>>> for i in daftar : print(i)
Jamil, NIM 234, Tinggal di Surakarta, Uang Saku Rp 250000 tiap bulannya.
Andi, NIM 365, Tinggal di Magelang, Uang Saku Rp 275000 tiap bulannya.
Sri, NIM 676, Tinggal di Yogyakarta, Uang Saku Rp 240000 tiap bulannya.
Badu, NIM 334, Tinggal di Sragen, Uang Saku Rp 230000 tiap bulannya.
>>> daftar[2].ambilNama()
'Sri'
>>>

Modul2_5.py - C:\Python27\Modul2_5.py (3.7.0)
File Edit Format Run Options Window Help
from LatOOP4 import *
class MhsTIF(Mahasiswa):
    """Class MhsTIF yang dibangun dari class mahasiswa"""
    def katakanPy(self):
        print("Python is cool.")
```

7. Latihan 2.7



```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/ASUS/AppData/Local/Programs/Python/Python37/LatOOP7.py ==
>>> Indonesia
>>>

LatOOP7.py - C:/Users/ASUS/AppData/Local/Programs/Python/Python37/LatOOP7.py (3.7.0)
File Edit Format Run Options Window Help
class kelasKosongan(object):
    pass
#Sekarang kita coba
k = kelasKosongan()
k.x = 23
k.y = 47
print(k.x + k.y)
k.mystr = "Indonesia"
print(k.mystr)
```

Tugas

1. a, b, c

```
Python 3.7.0 Shell
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python27/no1.py =====
>>> p9 = Pesan("Indonesia adalah negeri yang indah")
>>> p9.apakahTerkandung("ege")
True
>>> p9.apakahTerkandung("eka")
False
>>> p10 = Pesan("Surakarta")
>>> p10.hitungKonsonan()
4
>>> p10.hitungVokal()
4
>>> |

no1.py - C:/Python27/no1.py (3.7.0)
File Edit Format Run Options Window Help
#no 1
class Pesan(object):
    #a
    def __init__(self, kata):
        self.kata = kata
    def apakahTerkandung(self, yo):
        if yo in self.kata:
            return True
        else:
            return False
    #b
    def hitungKonsonan(self):
        vokal = 'AIUEOaueo'
        v = 0
        for x in self.kata:
            if x in vokal:
                v+=1
            hk = len(self.kata) - v
        return hk
    #c
    def hitungVokal(self):
        vokal = 'AIUEOaueo'
        v = 0
        for x in self.kata:
            if x in vokal:
                v+=1
        return v
```

2. a, b, c

```
Python 3.7.0 Shell
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python27/no2.py =====
>>> m9 = Mahasiswa("John", 555, "Surabaya", 300000)
>>> m9.ambilKotaTinggal()
'Surabaya'
>>> m9.perbaruiKotaTinggal("Sleman")
>>> m9.ambilKotaTinggal()
'Sleman'
>>> m7 = Mahasiswa("Jack", 655, "Manado", 270000)
>>> m7.ambilUangSaku()
270000
>>> m7.tambahUangSaku(50000)
>>> m7.ambilUangSaku()
320000
>>>

no2.py - C:/Python27/no2.py (3.7.0)
File Edit Format Run Options Window Help
"""Class yang dibangun dari class Mahasiswa"""
def __init__(self, nama, NIM, kota, us):
    """Metode inisiasi ini menutupi metode inisiasi di class Manusia"""
    self.nama = nama
    self.nim = NIM
    self.kota = kota
    self.us = us
def __str__(self):
    s = self.nama + ', NIM ' + str(self.nim) \
        + '. Tinggal di ' + self.kota \
        + '. Uang saku Rp. ' + str(self.us) \
        + ' tiap bulannya.'
    return s
def ambilNama(self):
    return self.nama
def ambilNim(self):
    return self.nim
def ambilUangSaku(self):
    return self.us
#a
def ambilKotaTinggal(self):
    return self.kota
#b
def perbaruiKotaTinggal(self, kotabaru):
    self.kota = kotabaru
def makan(self, s):
    """Metode ini menutupi metode 'makan'-nya class Manusia.
    Mahasiswa kalau sambil belajar ."""
    print("Saya baru saja makan",s,"sambil belajar")
    self.keadaan = 'kenyang'
#c
def tambahUangSaku(self, tambahUang):
    self.us = self.us + tambahUang
```

3.

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python27/no3.py =====
Masukkan nama: Alif
Masukkan nim: 82
Masukkan kota tinggal: Solo
Masukkan uang saku: 300000
Alif, NIM 82. Tinggal di Solo. Uang saku Rp. 300000 tiap bulannya.
>>>

no3.py - C:/Python27/no3.py (3.7.0)
File Edit Format Run Options Window Help
def __init__(self, nama, NIM, kota, us):
    """Metode inisiasi ini menutupi metode inisiasi di class Manusia"""
    self.nama = nama
    self.nim = NIM
    self.kota = kota
    self.us = us

def __str__(self):
    s = self.nama + ', NIM ' + str(self.nim) \
        + '. Tinggal di ' + self.kota \
        + '. Uang saku Rp. ' + str(self.us) \
        + ' tiap bulannya.'
    return s

def ambilNama(self):
    return self.nama
def ambilNim(self):
    return self.nim
def ambilUangSaku(self):
    return self.us
def tambahUangSaku(self, tambahUang):
    self.us = self.us + tambahUang
def ambilKotaTinggal(self):
    return self.kota
def perbaruiKotaTinggal(self, kotabarui):
    self.kota = kotabarui
def makan(self, s):
    """Metode ini menutupi metode 'makan'-nya class Manusia.
    Mahasiswa kalau sambil belajar ."""
    print("Saya baru saja makan", s, "sambil belajar")
    self.keadaan = 'kenyang'

a = input("Masukkan nama: ")
b = input("Masukkan nim: ")
c = input("Masukkan kota tinggal: ")
d = input("Masukkan uang saku: ")

x = Mahasiswa(a,b,c,d)
print(x)
```

4 dan 5.

```
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Python27/no4dan5.py =====
>>> ml.listkuliah
[]
>>> ml.ambilKuliah("Matematika Diskrit")
>>> ml.listkuliah
['Matematika Diskrit']
>>> ml.ambilKuliah("Algoritma dan Struktur Data")
>>> ml.listkuliah
['Matematika Diskrit', 'Algoritma dan Struktur Data']
>>> ml.hapusListKuliah("Matematika Diskrit")
>>> ml.listkuliah
['Algoritma dan Struktur Data']
>>>

no4dan5.py - C:/Python27/no4dan5.py (3.7.0)
File Edit Format Run Options Window Help
s = self.nama + ', NIM ' + str(self.nim) \
    + '. Tinggal di ' + self.kota \
    + '. Uang saku Rp. ' + str(self.us) \
    + ' tiap bulannya.'
    return s

def ambilNama(self):
    return self.nama
def ambilNim(self):
    return self.nim
def ambilUangSaku(self):
    return self.us
def tambahUangSaku(self, tambahUang):
    self.us = self.us + tambahUang
def ambilKotaTinggal(self):
    return self.kota
def perbaruiKotaTinggal(self, kotabarui):
    self.kota = kotabarui
def makan(self, s):
    """Metode ini menutupi metode 'makan'-nya class Manusia.
    Mahasiswa kalau sambil belajar ."""
    print("Saya baru saja makan", s, "sambil belajar")
    self.keadaan = 'kenyang'

#no 4
def ambilKuliah(self, ambil):
    self.listkuliah.append(ambil)

#no 5
def hapusListKuliah(self, hapus):
    for x in self.listkuliah:
        if hapus in self.listkuliah:
            self.listkuliah.remove(hapus)
        else:
            print("Maaf mata kuliah tidak ada dalam list mata kuliah yang di")

ml = Mahasiswa('Jamil', 234, 'Surakarta', 250000)
m2 = Mahasiswa('Andi', 365, 'Magelang', 275000)
m3 = Mahasiswa('Sri', 676, 'Yogyakarta', 240000)
```

6.

```

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python27\n06.py =====
>>> s1 = SiswaSMA("Udan", 321, 15, 20000)
>>> s1.tahunlahir()
2005
>>>

no6.py - C:\Python27\n06.py (3.7.0)
File Edit Format Run Options Window Help
# no 6
from datetime import date

class Manusia(object):
    """Class 'Manusia' dengan inisiasi 'nama'"""
    keadaan = 'lapar'

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

    def ucapkanSalam(self):
        print('Salam, namaku', self.nama)

    def makan(self, s):
        print('Saya baru saja makan', s)
        self.keadaan = 'kenyang'

    def olahraga(self, k):
        print('Saya baru saja latihan', k)
        self.keadaan = 'lapar'

    def mengalikanDenganDua(self, n):
        return n*2

class SiswaSMA(Manusia):
    def __init__(self, nama, NIS, umur, us):
        """Metode inisiasi ini menutupi metode inisiasi di class Manusia"""
        self.nama = nama
        self.nis = NIS
        self.umur = umur
        self.us = us

    def __str__(self):
        s = self.nama + ', NIS ' + str(self.nis) \
            + '. Berumur ' + str(self.umur) \
            + '. Uang saku Rp. ' + str(self.us) \
            + ' tiap harinya.'
        return s

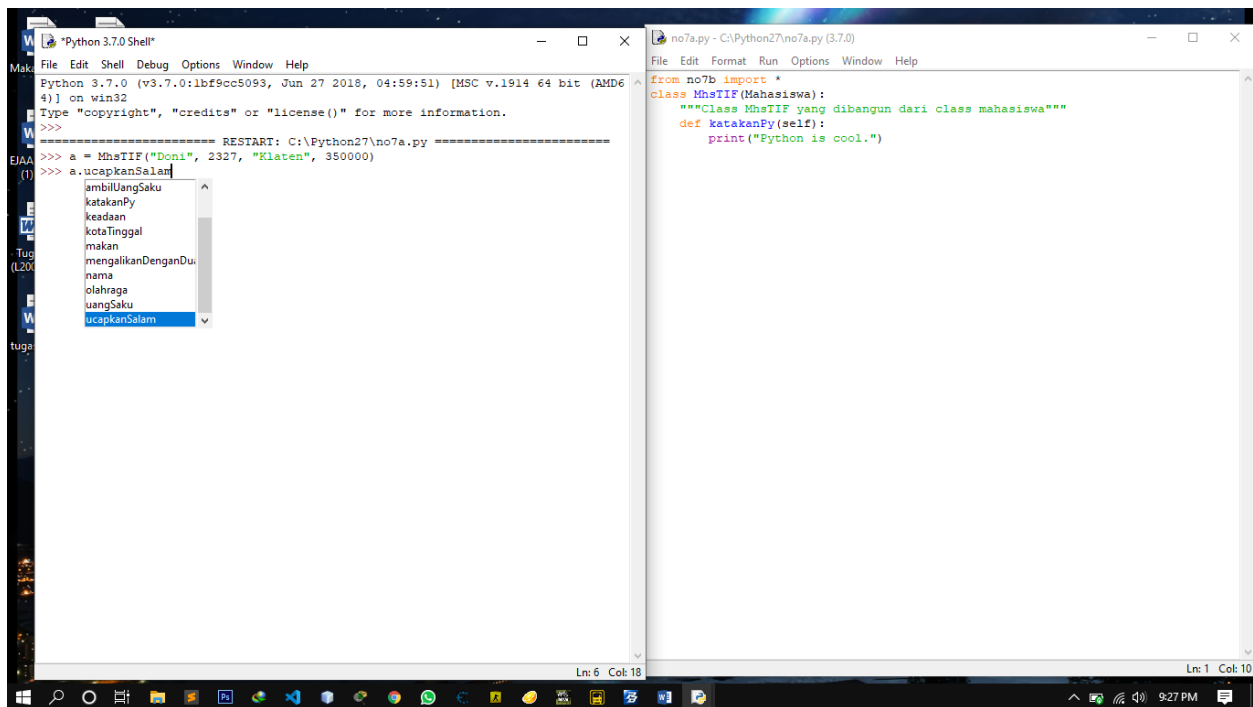
    def tahunlahir(self):
        tahunskrg = date.today().year
        thnlahir = tahunskrg - self.umur
        return thnlahir
  
```

7.

```

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Python27\n07a.py =====
>>> a = MhsTIF("Doni", 2327, "Klaten", 350000)
>>> a.
NIM
ambilNIM
ambilNama
ambilUangSaku
katakanPy
keadaan
kotaTinggal
makan
mengalikanDenganDua
nama

no7a.py - C:\Python27\n07a.py (3.7.0)
File Edit Format Run Options Window Help
from no7b import *
class MhsTIF(Mahasiswa):
    """Class MhsTIF yang dibangun dari class mahasiswa"""
    def katakanPy(self):
        print("Python is cool.")
  
```



Keterangan

NIM	: class Mahasiswa
ambilNIM	: class Mahasiswa
ambilNama	: class Mahasiswa
ambilUangSaku	: class Mahasiswa
katakanPy	: class MhsTIF
keadaan	: class Manusia
kotaTinggal	: class Mahasiswa
makan	: class Manusia
mengalikanDenganDua	: class Manusia
nama	: class Mahasiswa
olahraga	: class Manusia
uangSaku	: class Mahasiswa
ucapkanSalam	: class Manusia

