

LAPORAN LATIHAN

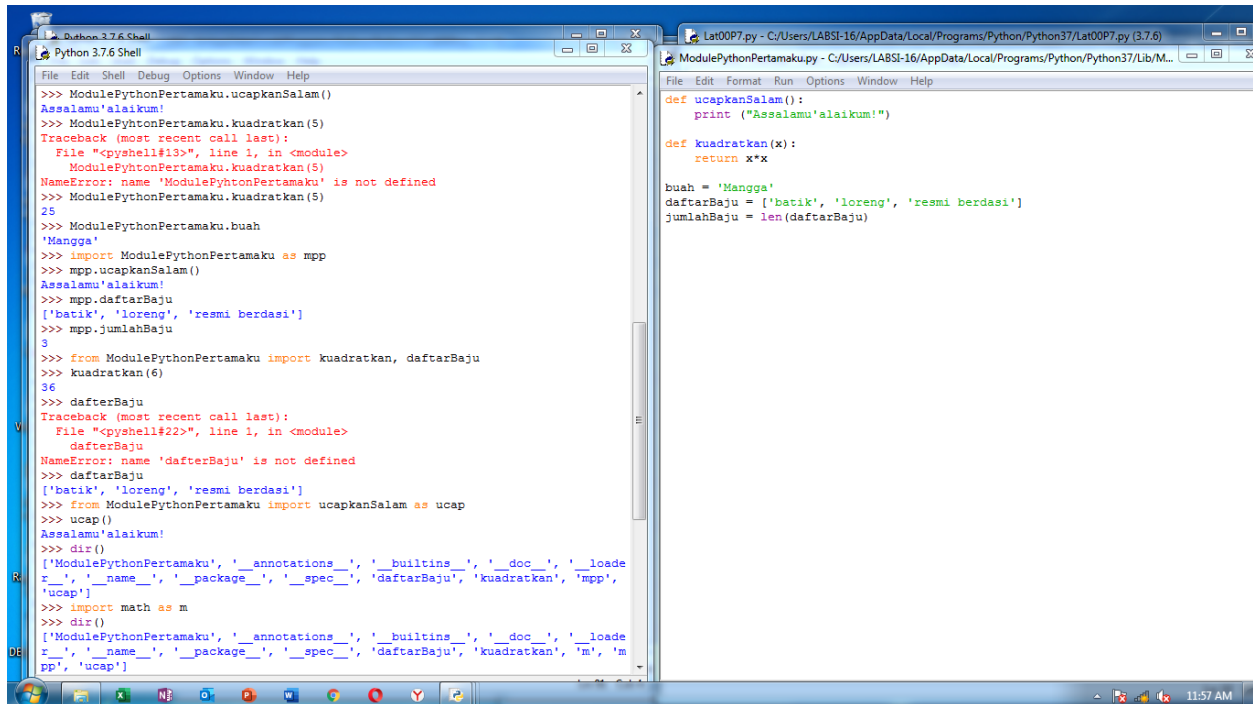
PRAKTIKUM ALGORITMA & STRUKTUR DATA

MODUL 2

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Tanggal Praktikum : 5 Maret 2020



The image shows a screenshot of a computer screen with two windows. The left window is a Python 3.7.6 Shell, and the right window is a Python script file named 'Lat00P7.py'.

Python 3.7.6 Shell:

```
>>> ModulePythonPertamaku.ucapkanSalam()
Assalamu'alaikum!
>>> ModulePythonPertamaku.kuadratkan(5)
Traceback (most recent call last):
  File "<pyshell#13>", line 1, in <module>
    ModulePythonPertamaku.kuadratkan(5)
NameError: name 'ModulePythonPertamaku' is not defined
>>> ModulePythonPertamaku.kuadratkan(5)
25
>>> ModulePythonPertamaku.buah
'Mangga'
>>> import ModulePythonPertamaku as mpp
>>> mpp.ucapkanSalam()
Assalamu'alaikum!
>>> mpp.daftarBaju
['batik', 'loreng', 'resmi berdasi']
>>> mpp.jumlahBaju
3
>>> from ModulePythonPertamaku import kuadratkan, daftarBaju
>>> kuadratkan(6)
36
>>> daftarBaju
Traceback (most recent call last):
  File "<pyshell#22>", line 1, in <module>
    daftarBaju
NameError: name 'daftarBaju' is not defined
>>> daftarBaju
['batik', 'loreng', 'resmi berdasi']
>>> from ModulePythonPertamaku import ucapkanSalam as ucap
>>> ucap()
Assalamu'alaikum!
>>> dir()
['ModulePythonPertamaku', '__annotations__', '__builtins__', '__doc__', '__loader__', '__name__', '__package__', '__spec__', 'daftarBaju', 'kuadratkan', 'mpp', 'ucap']
>>> import math as m
>>> dir()
['ModulePythonPertamaku', '__annotations__', '__builtins__', '__doc__', '__loader__', '__name__', '__package__', '__spec__', 'daftarBaju', 'kuadratkan', 'm', 'math', 'ucap']
```

Lat00P7.py - C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lib/M...:

```
def ucapkanSalam():
    print ("Assalamu'alaikum!")

def kuadratkan(x):
    return x*x

buah = 'Mangga'
daftarBaju = ['batik', 'loreng', 'resmi berdasi']
jumlahBaju = len(daftarBaju)
```

```
Python 3.7.6 Shell
File Edit Shell Debug Options Window Help
NameError: name 'daftarBaju' is not defined
>>> daftarBaju
['batik', 'loreng', 'resmi berdasi']
>>> from ModulePythonPertamaku import ucapkanSalam as ucap
>>> ucap()
Assalamu'alaikum!
>>> dir()
['ModulePythonPertamaku', '__annotations__', '__builtins__', '__doc__', '__loader__', '__name__', '__package__', '__spec__', 'daftarBaju', 'kuadratkan', 'mmp', 'ucap']
>>> import math as m
>>> dir()
['ModulePythonPertamaku', '__annotations__', '__builtins__', '__doc__', '__loader__', '__name__', '__package__', '__spec__', 'daftarBaju', 'kuadratkan', 'm', 'math', 'ucap']
>>> dir(m)
['__doc__', '__loader__', '__name__', '__package__', '__spec__', 'acos', 'acosh', 'asin', 'asinh', 'atan', 'atan2', 'atanh', 'ceil', 'copysign', 'cos', 'cosh', 'degrees', 'e', 'erf', 'erfc', 'exp', 'expm1', 'fabs', 'factorial', 'floor', 'fmod', 'frexp', 'fsum', 'gamma', 'gcd', 'hypot', 'inf', 'isclose', 'isfinite', 'isinf', 'isnan', 'ldexp', 'lgamma', 'log', 'log10', 'log1p', 'log2', 'modf', 'nan', 'pi', 'pow', 'radians', 'remainder', 'sin', 'sinh', 'sqrt', 'tan', 'tanh', 'tau', 'trunc']
>>> from sys import
SyntaxError: invalid syntax
>>> from sys import *
>>> dir()
['ModulePythonPertamaku', '__annotations__', '__builtins__', '__doc__', '__loader__', '__name__', '__package__', '__spec__', 'api_version', 'argv', 'base_exec_prefix', 'base_prefix', 'breakpointhook', 'builtin_module_names', 'byteorder', 'call_tracing', 'os.altstat', 'copyright', 'daftarBaju', 'displayhook', 'dlhandle', 'dont_write_bytecode', 'exc_info', 'excepthook', 'exec_prefix', 'executable', 'exit', 'flags', 'float_info', 'float_repr_style', 'get_asyncgen_hooks', 'get_coroutine_origin_tracking_depth', 'get_coroutine_wrapper', 'get_allocator_blocks', 'getcheckinterval', 'getdefaultencoding', 'getfilesystemencodingerrors', 'getfilesystemencoding', 'getprofile', 'getrecursionlimit', 'getrefcount', 'getsizeof', 'getswitchinterval', 'gettrace', 'getwindowsversion', 'hash_info', 'hexversion', 'implementation', 'int_info', 'intern', 'is_finalizing', 'kuadratkan', 'last_traceback', 'last_type', 'last_value', 'm', 'maxsize', 'maxunicode', 'meta_path', 'modules', 'mmp', 'path', 'path_hooks', 'path_importer_cache', 'platform', 'prefix
```

```
Python 3.7.6 Shell
File Edit Shell Debug Options Window Help
Python 3.7.6 (tags/v3.7.6:43364a7ae, Dec 19 2019, 00:42:30) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P2.py =
>>> pesanA = Pesan('Aku suka kuliiah ini')
>>> pesanB = Pesan('Surakarta: the Spirit of Java')
>>> pesanA.cetakIni()
aku suka kuliiah ini
>>> pesanA.cetakJumlahKarakterku()
Kalimatku mempunyai 19 karakter.
>>> pesanB.CetakJumlahKarakterku()
Traceback (most recent call last):
  File "<pyshell#4>", line 1, in <module>
    pesanB.CetakJumlahKarakterku()
AttributeError: 'Pesan' object has no attribute 'CetakJumlahKarakterku'
>>> pesanB.cetakJumlahKarakterku()
Kalimatku mempunyai 29 karakter.
>>> pesanA.cetakPakaiHurufKapital()
AKU SUKA KULIAH INI
>>> pesanA.cetakPakaiHurufKecil()
aku suka kuliiah ini
>>> pesanA.perbarui('Aku senang struktur data')
Traceback (most recent call last):
  File "<pyshell#8>", line 1, in <module>
    pesanA.perbarui('Aku senang struktur data')
  File "C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P2.py", line 15, in perbarui
    self.teks = stringBaru
NameError: name 'self' is not defined
>>>
= RESTART: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P2.py =
>>> pesanA.perbarui('Aku senang struktur data')
Traceback (most recent call last):
  File "<pyshell#9>", line 1, in <module>
    pesanA.perbarui('Aku senang struktur data')
NameError: name 'pesanA' is not defined
>>>
```

```
Lat00P2.py - C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P2.py (3.7.6)
File Edit Format Run Options Window Help
class Pesan(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
```

```
Python 3.7.6 Shell
File Edit Shell Debug Options Window Help
>>> pesanB.CetakJumlahKarakterku()
Traceback (most recent call last):
  File "<pyshell#4>", line 1, in <module>
    pesanB.CetakJumlahKarakterku()
AttributeError: 'Pesan' object has no attribute 'CetakJumlahKarakterku'
>>> pesanB.cetakJumlahKarakterku()
Kalimatku mempunyai 29 karakter
>>> pesanA.cetakPakaiHurufKapital()
AKU SUKA KULIAH INI
>>> pesanA.cetakPakaiHurufKecil()
aku suka kuliah ini
>>> pesanA.perbarui('Aku senang struktur data')
Traceback (most recent call last):
  File "<pyshell#8>", line 1, in <module>
    pesanA.perbarui('Aku senang struktur data')
  File "C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P2.py", line 15, in perbarui
    self.teks = stringBaru
NameError: name 'self' is not defined
>>>
= RESTART: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P2.py =
>>> pesanA.perbarui('Aku senang struktur data')
Traceback (most recent call last):
  File "<pyshell#9>", line 1, in <module>
    pesanA.perbarui('Aku senang struktur data')
NameError: name 'pesanA' is not defined
>>>
= RESTART: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P2.py =
>>> pesanA.perbarui('Aku senang struktur data')
Traceback (most recent call last):
  File "<pyshell#10>", line 1, in <module>
    pesanA.perbarui('Aku senang struktur data')
NameError: name 'pesanA' is not defined
>>> pesanA = Pesan('Aku suka kuliah ini')
>>> pesanA.perbarui('Aku senang struktur data')
>>> pesanA.cetakIni()
Aku senang struktur data
>>>
```

```
Lat00P2.py - C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P2.py (3.7.6)
File Edit Format Run Options Window Help
class Pesan(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
```

```
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: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py =
>>> p2 = Manusia('Budi')
>>> p2.ucapkanSalam()
Salam, namaku Budi
>>> ak = Manusia('Abdul Karim')
>>> ak.ucapkanSalam()
Salam, namaku Abdul Karim
>>> ak.keadaan
'lapar'
>>> ak.makan('nasi goreng')
Saya baru saja makan nasi goreng
>>> ak.keadaan
'kenyang'
>>> ak.olahraga
<bound method Manusia.olahraga of <_main__.Manusia object at 0x000000003268BC8>
>>>
>>> ak.olahraga('renang')
Saya baru saja latihan renang
>>> ak.keadaan
'lapar'
>>> ak.makan('bakso')
Saya baru saja makan bakso
>>> ak.keadaan
'kenyang'
>>> ak.mengalikanDenganDua(B)
Traceback (most recent call last):
  File "<pyshell#12>", line 1, in <module>
    ak.mengalikanDenganDua(B)
NameError: name 'B' is not defined
>>> ak.mengalikanDenganDua(8)
16
>>>
= RESTART: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py =
>>> m1 = Mahasiswa('Jamil', 234, 'Surakarta', 250000)
```

```
Lat00P3.py - C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py (3.7.6)
File Edit Format Run Options Window Help
class Manusia(object):
    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

p1 = Manusia('Fatimah')
p1.ucapkanSalam()

class Mahasiswa(Manusia):
    def __init__(self, nama, NIM, kota, us):
        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):
        print("Saya baru saja makan", s, "sambil belajar.")
        self.keadaan = 'kenyang'
```

```
Python 3.7.6 Shell
File Edit Shell Debug Options Window Help
Traceback (most recent call last):
  File "<pyshe1l#12>", line 1, in <module>
    ak.mengalikanDenganDua(8)
NameError: name 'B' is not defined
>>> ak.mengalikanDenganDua(8)
16
>>>
= RESTART: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py =
Salam, namaku Fatimah
>>> 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.ucapkaSalama()
Salam, namaku Sri
>>> m3.keadaan
'lapar'
>>> m3.makan('gado-gado')
Saya baru saja makan gado-gado sambil belajar.
>>> m3.keadaan
'kenyang'
>>> print(m3)
Sri, NIM676. Tinggal di Yogyakarta. Uang saku Rp240000tiap bulannya.
>>> import Lat00P3
Salam, namaku Fatimah
>>>
= RESTART: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py =
Salam, namaku Fatimah
Salam, namaku Fatimah
>>> m4 = MhsTIF('Badu',334,'Sragen',230000)
>>> m4.katakanPy()
Python is cool.
>>> print(m4)
Badu, NIM334. Tinggal di Sragen. Uang saku Rp230000tiap bulannya.
>>> m4.keadaan
'lapar'
>>> m4.makan('pecel')
```

```
Lat00P3.py - C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py (3.7.6)
File Edit Format Run Options Window Help
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

p1 = Manusia('Fatimah')
p1.ucapkaSalama()

class Mahasiswa(Manusia):
    def __init__(self,nama,NIM,kota,us):
        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):
        print("Saya baru saja makan",s,"sambil belajar.")
        self.keadaan = 'kenyang'

import Lat00P3
class MhsTIF(Mahasiswa):
    def katakanPy(self):
        print('Python is cool.')
```

```
Python 3.7.6 Shell
File Edit Shell Debug Options Window Help
>>>
= RESTART: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py =
Salam, namaku Fatimah
>>> 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.ucapkaSalama()
Salam, namaku Sri
>>> m3.keadaan
'lapar'
>>> m3.makan('gado-gado')
Saya baru saja makan gado-gado sambil belajar.
>>> m3.keadaan
'kenyang'
>>> print(m3)
Sri, NIM676. Tinggal di Yogyakarta. Uang saku Rp240000tiap bulannya.
>>> import Lat00P3
Salam, namaku Fatimah
>>>
= RESTART: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py =
Salam, namaku Fatimah
Salam, namaku Fatimah
>>> m4 = MhsTIF('Badu',334,'Sragen',230000)
>>> m4.katakanPy()
Python is cool.
>>> print(m4)
Badu, NIM334. Tinggal di Sragen. Uang saku Rp230000tiap bulannya.
>>> m4.keadaan
'lapar'
>>> m4.makan('pecel')
Saya baru saja makan pecel sambil belajar.
>>> m4.keadaan
'kenyang'
>>> m4.ucapkaSalama()
Salam, namaku Badu
>>>
```

```
Lat00P3.py - C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py (3.7.6)
File Edit Format Run Options Window Help
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

p1 = Manusia('Fatimah')
p1.ucapkaSalama()

class Mahasiswa(Manusia):
    def __init__(self,nama,NIM,kota,us):
        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):
        print("Saya baru saja makan",s,"sambil belajar.")
        self.keadaan = 'kenyang'

import Lat00P3
class MhsTIF(Mahasiswa):
    def katakanPy(self):
        print('Python is cool.')
```

```
Python 3.7.6 Shell
File Edit Shell Debug Options Window Help
>>> print(m4)
Badu, NiM334. Tinggal di Sragen. Uang saku Rp230000tiap bulannya.
>>> m4.keadaan
'lapar'
>>> m4.makan('pecel')
Saya baru saja makan pecel sambil belajar.
>>> m4.keadaan
'kenyang'
>>> m4.ucapkanSalam()
Salam, namaku Badu
>>>
= RESTART: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py =
Salam, namaku Fatimah
Salam, namaku Fatimah
>>> daftar = [m1, m2, m3]
Traceback (most recent call last):
  File "<pyshell#32>", line 1, in <module>
    daftar = [m1, m2, m3]
NameError: name 'm1' is not defined
>>>
= RESTART: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py =
Salam, namaku Fatimah
Salam, namaku Fatimah
>>> m1 = Mahasiswa('Jamil',234,'Surakarta',250000)
>>> m2 = Mahasiswa('Andi',365,'Magelang',275000)
>>> m3 = Mahasiswa('Sri',676,'Yogyakarta',240000)
>>> daftar = [m1, m2, m3]
>>> for i in daftar: print(i.NIM)
234
365
676
>>> for i in daftar: print(i)
Jamil, NiM234. Tinggal di Surakarta. Uang saku Rp250000tiap bulannya.
Andi, NiM365. Tinggal di Magelang. Uang saku Rp275000tiap bulannya.
Sri, NiM676. Tinggal di Yogyakarta. Uang saku Rp240000tiap bulannya.
>>> daftar[2].ambilNama()
'Sri'
>>>
```

```
Lat00P3.py - C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P3.py (3.7.6)
File Edit Format Run Options Window Help
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

p1 = Manusia('Fatimah')
p1.ucapkanSalam()

class Mahasiswa(Manusia):
    def __init__(self,nama,NIM,kota,us):
        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):
        print("Saya baru saja makan",s,"sambil belajar.")
        self.keadaan = 'kenyang'

import Lat00P3
class MhsTIF(Mahasiswa):
    def katakanPy(self):
        print('Python is cool.')
```

```
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: C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P7.py =
70
Indonesia
>>>
```

```
Lat00P7.py - C:/Users/LABSI-16/AppData/Local/Programs/Python/Python37/Lat00P7.py (3.7.6)
File Edit Format Run Options Window Help
class kelasKosongan(object):
    pass

k = kelasKosongan()
k.x = 23
k.y = 47
print(k.x + k.y)
k.mysr = 'Indonesia'
print(k.mysr)
```