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NIM   : L200184098
Kelas   : H

Modul 4

No 1

```python
class Mahasiswa(object):
    def __init__(self, nama, nim, kota, uangsaku):
        self.nama = nama
        self.nim = nim
        self.tempatTinggal = kota
        self.uangSaku = uangsaku

m0 = Mahasiswa("Jono", 123, "Sragen", 240000)
m1 = Mahasiswa("Andi", 154, "Yogyakarta", 230000)
m2 = Mahasiswa("Jordi", 108, "Surakarta", 230000)
m3 = Mahasiswa("Lala", 140, "Surakarta", 235000)
m4 = Mahasiswa("Putri", 113, "Boyolali", 240000)
m5 = Mahasiswa("Raihan", 132, "Semarang", 250000)
m6 = Mahasiswa("Janis", 186, "Klaten", 245000)
m7 = Mahasiswa("Nanda", 199, "Wonogiri", 245000)
m8 = Mahasiswa("Putantri", 187, "Klaten", 245000)
m9 = Mahasiswa("Hardi", 153, "Karanganyar", 270000)
m10 = Mahasiswa("Maya", 148, "Purwodadi", 265000)

Daftar = [m0, m1, m2, m3, m4, m5, m6, m7, m8, m9, m10]

def cariKotaTinggal(list, target):
    a = []
    for i in list :
        if i.tempatTinggal == target:
            a.append(list.index(i))
    return a

a = cariKotaTinggal(Daftar, "Semarang")
print(a)
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (In
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:\Users\GL63\Desktop\Prak ASD modul 3 & 4\Modul 4\nomor 1.py ====
[5]
>>>
```

No 2

```python
class Mahasiswa(object):
    def __init__(self, nama, nim, kota, uangsaku):
        self.nama = nama
        self.nim = nim
        self.tempatTinggal = kota
        self.uangSaku = uangsaku

m0 = Mahasiswa("Jono", 123, "Sragen", 240000)
m1 = Mahasiswa("Andi", 154, "Yogyakarta", 230000)
m2 = Mahasiswa("Jordi", 108, "Surakarta", 230000)
m3 = Mahasiswa("Lala", 140, "Surakarta", 235000)
m4 = Mahasiswa("Putri", 113, "Boyolali", 240000)
m5 = Mahasiswa("Raihan", 132, "Semarang", 250000)
m6 = Mahasiswa("Janis", 186, "Klaten", 245000)
m7 = Mahasiswa("Nanda", 199, "Wonogiri", 245000)
m8 = Mahasiswa("Putantri", 187, "Klaten", 245000)
m9 = Mahasiswa("Hardi", 153, "Karanganyar", 270000)
m10 = Mahasiswa("Maya", 148, "Purwodadi", 265000)

Daftar = [m0, m1, m2, m3, m4, m5, m6, m7, m8, m9, m10]

def cariUangSakuTerkecil(list):
    temp = list[0].uangSaku
    for i in list[1:]:
        if i.uangSaku < temp:
            temp = i.uangSaku
    return temp

a = cariUangSakuTerkecil(Daftar)
print(a)
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (In
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:\Users\GL63\Desktop\Prak ASD modul 3 & 4\Modul 4\nomor 2.py ====
230000
>>>
```

No 3

```python
class Mahasiswa(object):
    def __init__(self, nama, nim, kota, uangsaku):
        self.nama = nama
        self.nim = nim
        self.tempatTinggal = kota
        self.uangSaku = uangsaku

m0 = Mahasiswa("Jono", 123, "Sragen", 240000)
m1 = Mahasiswa("Andi", 154, "Yogyakarta", 230000)
m2 = Mahasiswa("Jordi", 108, "Surakarta", 230000)
m3 = Mahasiswa("Lala", 140, "Surakarta", 235000)
m4 = Mahasiswa("Putri", 113, "Boyolali", 240000)
m5 = Mahasiswa("Raihan", 132, "Semarang", 250000)
m6 = Mahasiswa("Janis", 186, "Klaten", 245000)
m7 = Mahasiswa("Nanda", 199, "Wonogiri", 245000)
m8 = Mahasiswa("Putantri", 187, "Klaten", 245000)
m9 = Mahasiswa("Hardi", 153, "Karanganyar", 270000)
m10 = Mahasiswa("Maya", 148, "Purwodadi", 265000)

Daftar = [m0, m1, m2, m3, m4, m5, m6, m7, m8, m9, m10]

def cariUangSakuTerkecilObject(list):
    temp = [list[0]]
    for i in list[1:]:
        if i.uangSaku < temp[0].uangSaku:
            temp = [i]
        elif i.uangSaku == temp[0].uangSaku:
            temp.append(i)
    return temp

a = cariUangSakuTerkecilObject(Daftar)
print(a)
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (In
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:\Users\GL63\Desktop\Prak ASD modul 3 & 4\Modul 4\nomor 3.py ====
[<__main__.Mahasiswa object at 0x0388A310>, <__main__.Mahasiswa object at 0x0388
A370>]
>>>
```

No 4

```python
class Mahasiswa(object):
    def __init__(self, nama, nim, kota, uangsaku):
        self.nama = nama
        self.nim = nim
        self.tempatTinggal = kota
        self.uangSaku = uangsaku

m0 = Mahasiswa("Jono", 123, "Sragen", 240000)
m1 = Mahasiswa("Andi", 154, "Yogyakarta", 230000)
m2 = Mahasiswa("Jordi", 108, "Surakarta", 230000)
m3 = Mahasiswa("Lala", 140, "Surakarta", 235000)
m4 = Mahasiswa("Putri", 113, "Boyolali", 240000)
m5 = Mahasiswa("Raihan", 132, "Semarang", 250000)
m6 = Mahasiswa("Janis", 186, "Klaten", 2400000)
m7 = Mahasiswa("Nanda", 199, "Wonogiri", 245000)
m8 = Mahasiswa("Putantri", 187, "Klaten", 245000)
m9 = Mahasiswa("Hardi", 153, "Karanganyar", 270000)
m10 = Mahasiswa("Maya", 148, "Purwodadi", 265000)

Daftar = [m0, m1, m2, m3, m4, m5, m6, m7, m8, m9, m10]

def cariUangSakuKurang250k(list):
    temp = []
    for i in list:
        if i.uangSaku < 250000:
            temp.append(i)
    return temp

a = cariUangSakuKurang250k(Daftar)
for i in a:
    print(i.nama)
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (In
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:\Users\GL63\Desktop\Prak ASD modul 3 & 4\Modul 4\nomor 4.py ====
Jono
Andi
Jordi
Lala
Putri
Nanda
Putantri
>>>
```

No 6

```python
class Mahasiswa(object):
    def __init__(self, nama, nim, kota, uangsaku):
        self.nama = nama
        self.nim = nim
        self.tempatTinggal = kota
        self.uangSaku = uangsaku

m0 = Mahasiswa("Jono", 123, "Sragen", 240000)
m1 = Mahasiswa("Andi", 154, "Yogyakarta", 230000)
m2 = Mahasiswa("Jordi", 108, "Surakarta", 230000)
m3 = Mahasiswa("Lala", 140, "Surakarta", 235000)
m4 = Mahasiswa("Putri", 113, "Boyolali", 240000)
m5 = Mahasiswa("Raihan", 132, "Semarang", 250000)
m6 = Mahasiswa("Janis", 186, "Klaten", 245000)
m7 = Mahasiswa("Nanda", 199, "Wonogiri", 245000)
m8 = Mahasiswa("Putantri", 187, "Klaten", 245000)
m9 = Mahasiswa("Hardi", 153, "Karanganyar", 270000)
m10 = Mahasiswa("Maya", 148, "Purwodadi", 265000)

Daftar = [m0, m1, m2, m3, m4, m5, m6, m7, m8, m9, m10]

def binSe(kumpulan, target):
    low = 0
    high = len(kumpulan)-1
    while low <= high:
        mid = (high+low)//2
        if kumpulan[mid] == target:
            return mid
        elif target < kumpulan[mid]:
            high = mid-1
        else:
            low = mid+1
    return False

kumpulan = [2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]
print(binSe(kumpulan, 5))
```

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (In
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:\Users\GL63\Desktop\Prak ASD modul 3 & 4\Modul 4\nomor 6.py ====
2
>>>
```

No 7

```python
class Mahasiswa(object):
    def __init__(self, nama, nim, kota, uangsaku):
        self.nama = nama
        self.nim = nim
        self.tempatTinggal = kota
        self.uangSaku = uangsaku

m0 = Mahasiswa("Jono", 123, "Sragen", 240000)
m1 = Mahasiswa("Andi", 154, "Yogyakarta", 230000)
m2 = Mahasiswa("Jordi", 108, "Surakarta", 230000)
m3 = Mahasiswa("Lala", 140, "Surakarta", 235000)
m4 = Mahasiswa("Putri", 113, "Boyolali", 240000)
m5 = Mahasiswa("Raihan", 132, "Semarang", 250000)
m6 = Mahasiswa("Janis", 186, "Klaten", 245000)
m7 = Mahasiswa("Nanda", 199, "Wonogiri", 245000)
m8 = Mahasiswa("Putantri", 187, "Klaten", 245000)
m9 = Mahasiswa("Hardi", 153, "Karanganyar", 270000)
m10 = Mahasiswa("Maya", 148, "Purwodadi", 265000)

Daftar = [m0, m1, m2, m3, m4, m5, m6, m7, m8, m9, m10]

def binSeMass(kumpulan, target):
    temp = []
    low = 0
    high = len(kumpulan)-1
    while low <= high :
        mid = (high+low)//2
        if kumpulan[mid] == target:
            midKiri = mid-1
            while kumpulan[midKiri] == target:
                temp.append(midKiri)
                midKiri = midKiri-1
            temp.append(mid)
            midKanan = mid+1
            while kumpulan[midKanan] == target:
                temp.append(midKanan)
                midKanan = midKanan+1
            return temp
        elif target < kumpulan[mid]:
            high = mid-1
```

Ln: 15 Col: 0

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (In
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Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:\Users\GL63\Desktop\Prak ASD modul 3 & 4\Modul 4\nomor 7.py ====
[3, 4, 5]
>>>
```