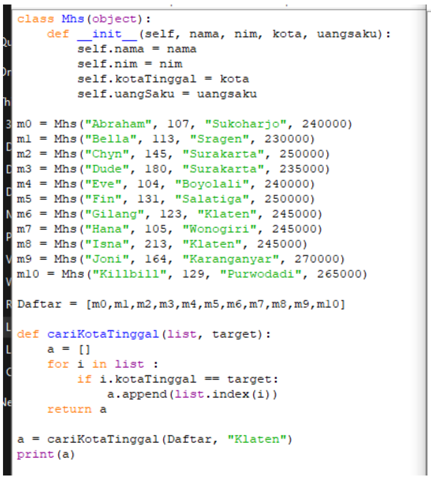
AININ M.A
L200180195
G

- NOMOR 1



```
class Mhs(object):
    def __init__(self, nama, nim, kota, uangsaku):
        self.nama = nama
        self.nim = nim
        self.kotaTinggal = kota
        self.uangSaku = uangsaku

m0 = Mhs("Abraham", 107, "Sukoharjo", 240000)
m1 = Mhs("Bella", 113, "Sragen", 230000)
m2 = Mhs("Chyn", 145, "Surakarta", 250000)
m3 = Mhs("Dude", 180, "Surakarta", 235000)
m4 = Mhs("Eve", 104, "Boyolali", 240000)
m5 = Mhs("Fin", 131, "Salatiga", 250000)
m6 = Mhs("Gilang", 123, "Klaten", 245000)
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m8 = Mhs("Isna", 213, "Klaten", 245000)
m9 = Mhs("Joni", 164, "Karanganyar", 270000)
m10 = Mhs("Killbill", 129, "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.kotaTinggal == target:
            a.append(list.index(i))
    return a

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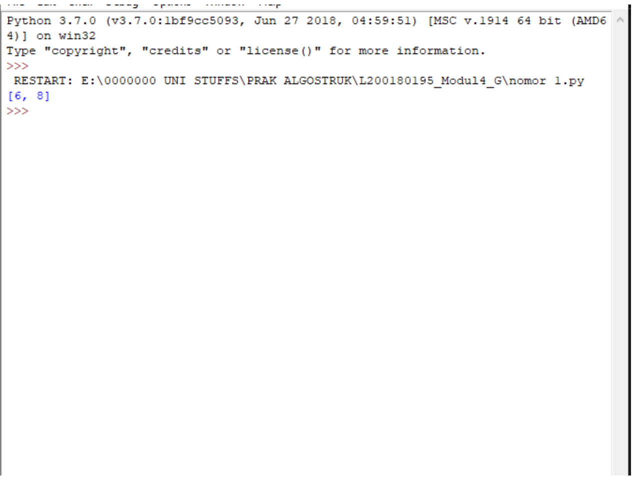
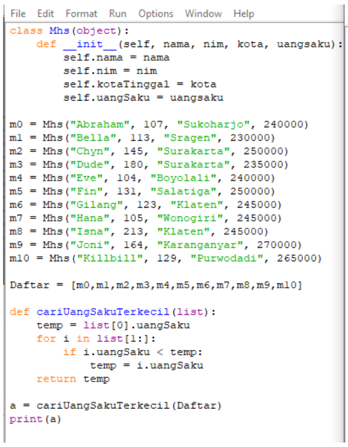



```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD6
4)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
 RESTART: E:\0000000 UNI STUFFS\PRAK ALGOSTRUK\L200180195_Modul4_G\nomor 1.py
[6, 8]
>>>
```

- NOMOR 2



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

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m9 = Mhs("Joni", 164, "Karanganyar", 270000)
m10 = Mhs("Killbill", 129, "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)
```
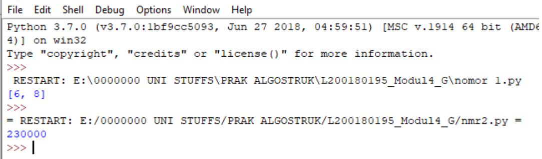
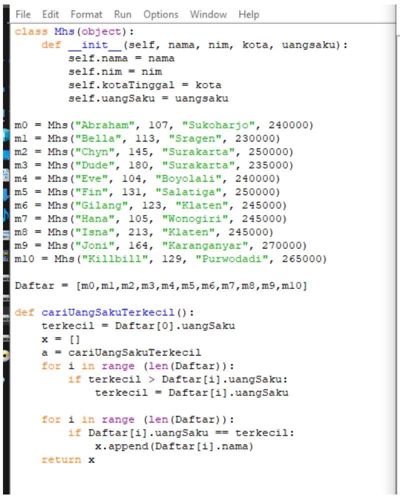



```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD6
4)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
 RESTART: E:\0000000 UNI STUFFS\PRAK ALGOSTRUK\L200180195_Modul4_G\nomor 1.py
[6, 8]
>>>
= RESTART: E:/0000000 UNI STUFFS/PRAK ALGOSTRUK/L200180195_Modul4_G/nmr2.py =
230000
>>>
```

- NOMOR 3



```
class Mhs(object):
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        self.nama = nama
        self.nim = nim
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        self.uangSaku = uangsaku

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m9 = Mhs("Joni", 164, "Karanganyar", 270000)
m10 = Mhs("Killbill", 129, "Purwodadi", 265000)

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

def cariUangSakuTerkecil():
    terkecil = Daftar[0].uangSaku
    x = []
    a = cariUangSakuTerkecil
    for i in range (len(Daftar)):
        if terkecil > Daftar[i].uangSaku:
            terkecil = Daftar[i].uangSaku

    for i in range (len(Daftar)):
        if Daftar[i].uangSaku == terkecil:
            x.append(Daftar[i].nama)
    return x
```
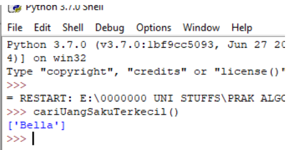
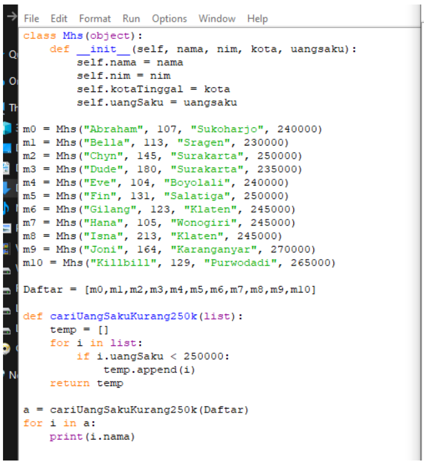



```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 20
4)] on win32
Type "copyright", "credits" or "license()"
>>>
= RESTART: E:\0000000 UNI STUFFS\PRAK ALGO
>>> cariUangSakuTerkecil()
['Bella']
>>>
```

- NOMOR 4



```
class Mhs(object):
    def __init__(self, nama, nim, kota, uangsaku):
        self.nama = nama
        self.nim = nim
        self.kotaTinggal = kota
        self.uangSaku = uangsaku

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m9 = Mhs("Joni", 164, "Karanganyar", 270000)
m10 = Mhs("Killbill", 129, "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)
```
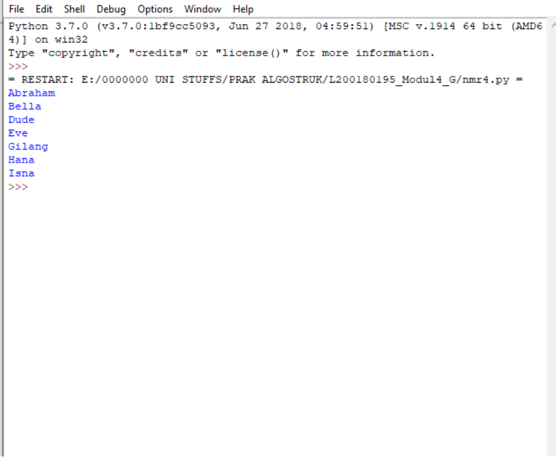
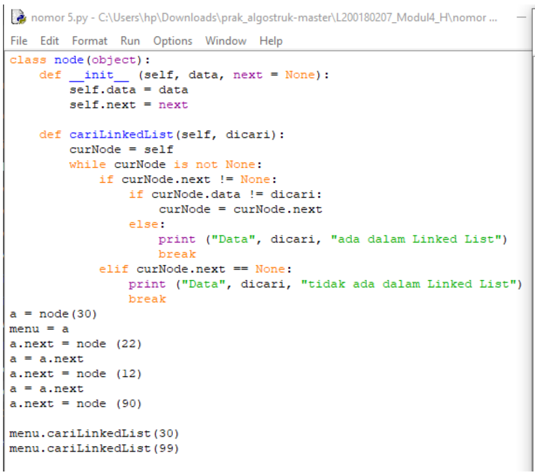
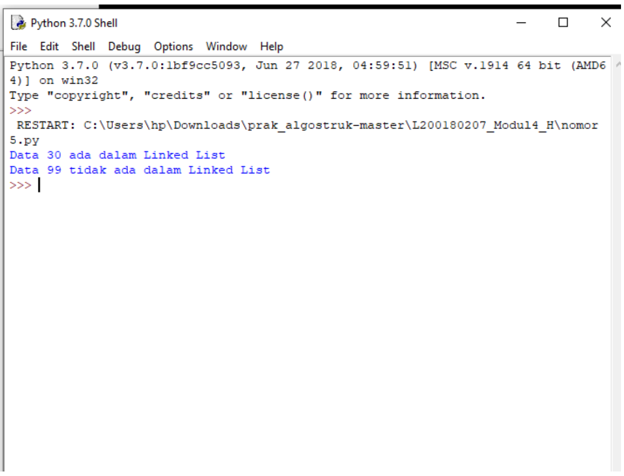



```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD6
4)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
= RESTART: E:/0000000 UNI STUFFS/PRAK ALGOSTRUK/L200180195_Modul4_G/nmr4.py =
Abraham
Bella
Dude
Eve
Gilang
Hana
Isna
>>>
```

- NOMOR 5

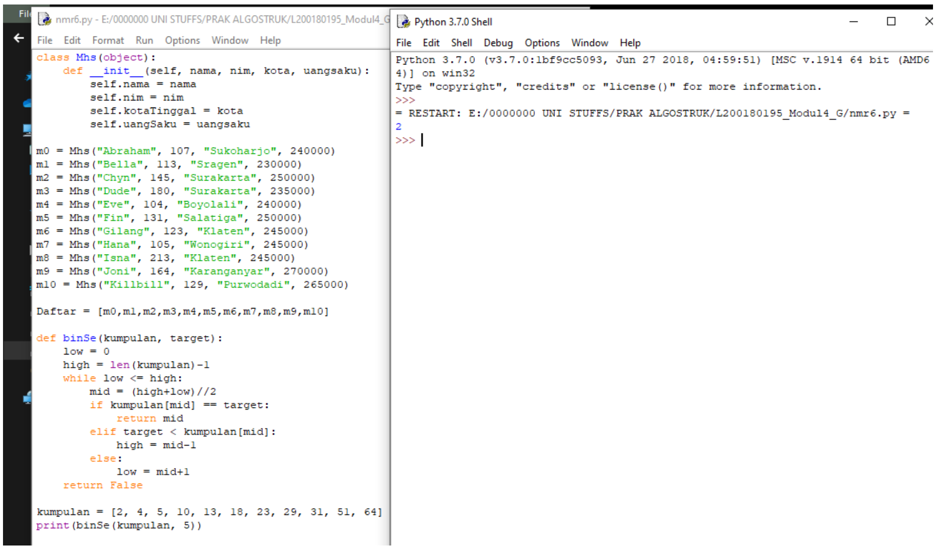

nomor 5.py - C:\Users\hp\Downloads\prak_algostruk-master\L200180207_Modul4_H\nomor ...
File Edit Format Run Options Window Help

```
class node(object):
    def __init__ (self, data, next = None):
        self.data = data
        self.next = next

    def cariLinkedList(self, dicari):
        curNode = self
        while curNode is not None:
            if curNode.next != None:
                if curNode.data != dicari:
                    curNode = curNode.next
                else:
                    print ("Data", dicari, "ada dalam Linked List")
                    break
            elif curNode.next == None:
                print ("Data", dicari, "tidak ada dalam Linked List")
                break
a = node(30)
menu = a
a.next = node (22)
a = a.next
a.next = node (12)
a = a.next
a.next = node (90)

menu.cariLinkedList(30)
menu.cariLinkedList(99)
```



```
Python 3.7.0 (v3.7.0:1bf9cc5093, 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:\Users\hp\Downloads\prak_algostruk-master\L200180207_Modul4_H\nomor
5.py
Data 30 ada dalam Linked List
Data 99 tidak ada dalam Linked List
>>>
```

- NOMOR 6


nmr6.py - E:/0000000 UNI STUFFS/PRAK ALGOSTRUK/L200180195_Modul4_G
File Edit Format Run Options Window Help
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help

```
class Mhs(object):
    def __init__(self, nama, nim, kota, uangsaku):
        self.nama = nama
        self.nim = nim
        self.kotaTinggal = kota
        self.uangSaku = uangsaku

m0 = Mhs("Abraham", 107, "Sukoharjo", 240000)
m1 = Mhs("Bella", 113, "Sragen", 230000)
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m7 = Mhs("Hana", 105, "Wonogiri", 245000)
m8 = Mhs("Isna", 213, "Klaten", 245000)
m9 = Mhs("Joni", 164, "Karanganyar", 270000)
m10 = Mhs("Killbill", 129, "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))
```
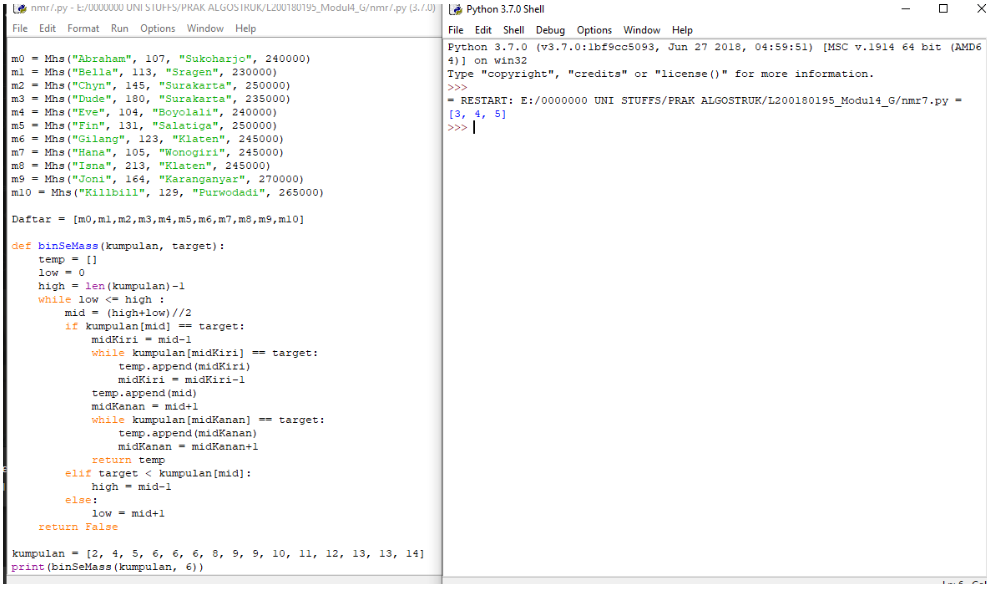

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD6
4)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
= RESTART: E:/0000000 UNI STUFFS/PRAK ALGOSTRUK/L200180195_Modul4_G/nmr6.py =
2
>>> 
```

- NOMOR 7


nmr7.py - E:/0000000 UNI STUFFS/PRAK ALGOSTRUK/L200180195_Modul4_G/nmr7.py (3.7.0)
File Edit Format Run Options Window Help
Python 3.7.0 Shell
File Edit Shell Debug Options Window Help

```
m0 = Mhs("Abraham", 107, "Sukoharjo", 240000)
m1 = Mhs("Bella", 113, "Sragen", 230000)
m2 = Mhs("Chyn", 145, "Surakarta", 250000)
m3 = Mhs("Dude", 180, "Surakarta", 235000)
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m8 = Mhs("Isna", 213, "Klaten", 245000)
m9 = Mhs("Joni", 164, "Karanganyar", 270000)
m10 = Mhs("Killbill", 129, "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
        else:
            low = mid+1
    return False

kumpulan = [2, 4, 5, 6, 6, 6, 8, 9, 9, 10, 11, 12, 13, 13, 14]
print(binSeMass(kumpulan, 6))
```
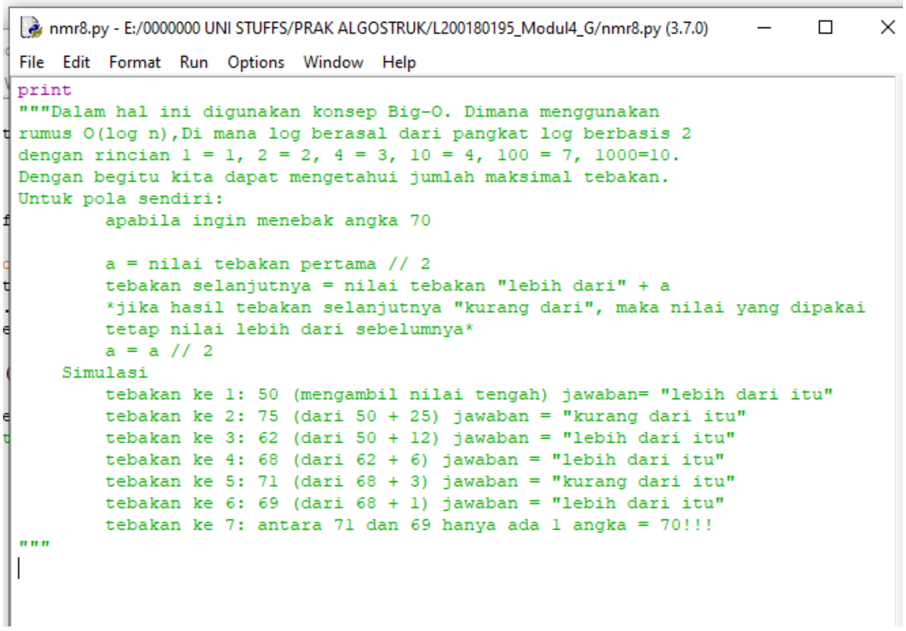

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD6
4)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
= RESTART: E:/0000000 UNI STUFFS/PRAK ALGOSTRUK/L200180195_Modul4_G/nmr7.py =
[3, 4, 5]
>>> 
```

- NOMOR 8


nmr8.py - E:/0000000 UNI STUFFS/PRAK ALGOSTRUK/L200180195_Modul4_G/nmr8.py (3.7.0)
File Edit Format Run Options Window Help

```
print
"""Dalam hal ini digunakan konsep Big-O. Dimana menggunakan
rumus O(log n),Di mana log berasal dari pangkat log berbasis 2
dengan rincian 1 = 1, 2 = 2, 4 = 3, 10 = 4, 100 = 7, 1000=10.
Dengan begitu kita dapat mengetahui jumlah maksimal tebakan.
Untuk pola sendiri:
        apabila ingin menebak angka 70

        a = nilai tebakan pertama // 2
        tebakan selanjutnya = nilai tebakan "lebih dari" + a
        *jika hasil tebakan selanjutnya "kurang dari", maka nilai yang dipakai
        tetap nilai lebih dari sebelumnya*
        a = a // 2
    Simulasi
        tebakan ke 1: 50 (mengambil nilai tengah) jawaban= "lebih dari itu"
        tebakan ke 2: 75 (dari 50 + 25) jawaban = "kurang dari itu"
        tebakan ke 3: 62 (dari 50 + 12) jawaban = "lebih dari itu"
        tebakan ke 4: 68 (dari 62 + 6) jawaban = "lebih dari itu"
        tebakan ke 5: 71 (dari 68 + 3) jawaban = "kurang dari itu"
        tebakan ke 6: 69 (dari 68 + 1) jawaban = "lebih dari itu"
        tebakan ke 7: antara 71 dan 69 hanya ada 1 angka = 70!!!
"""
```