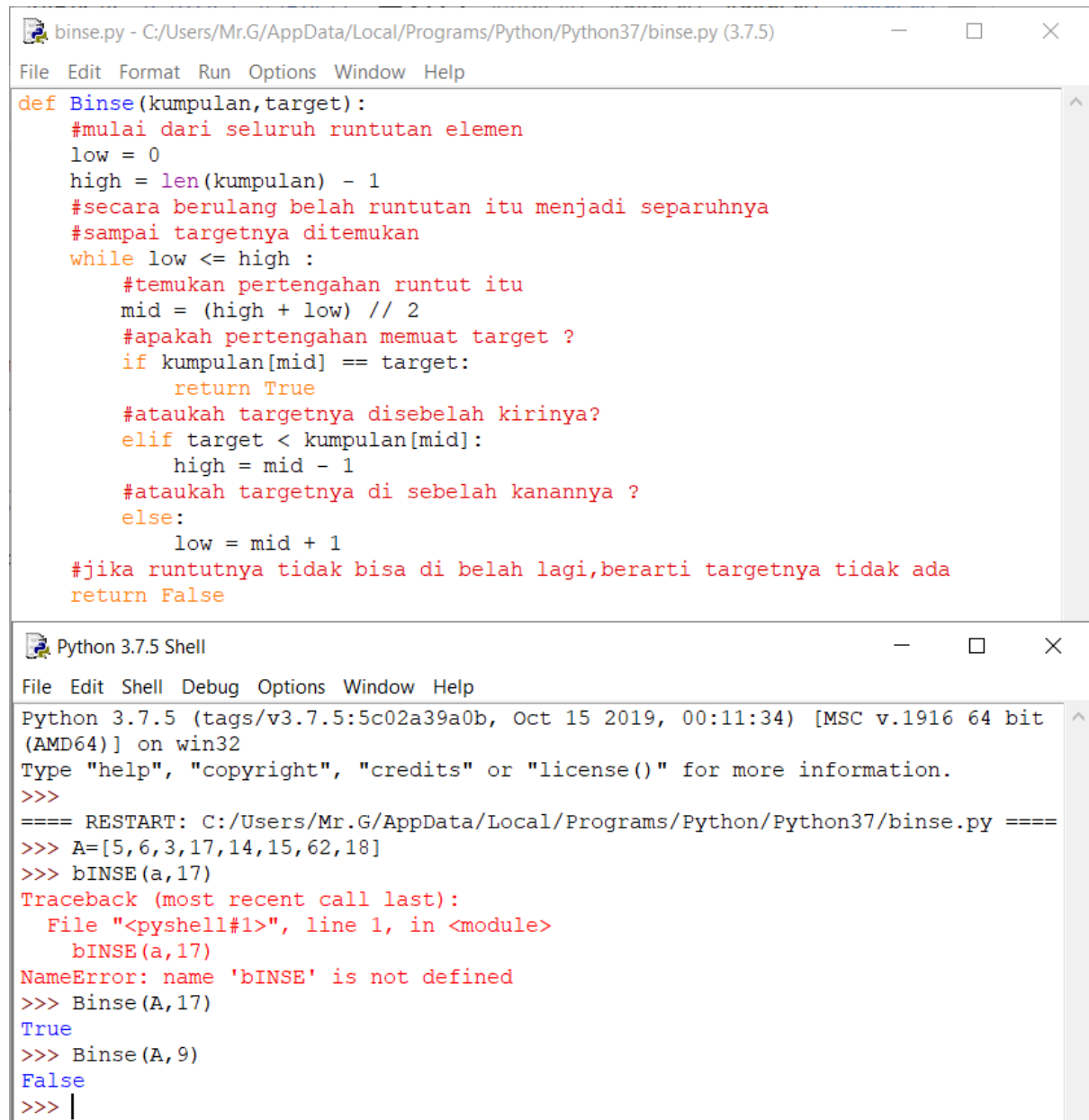


Nama : Guntur Jatmiko
NIM : L200180039
Kelas : B

Modul 4

Latihan

Binse



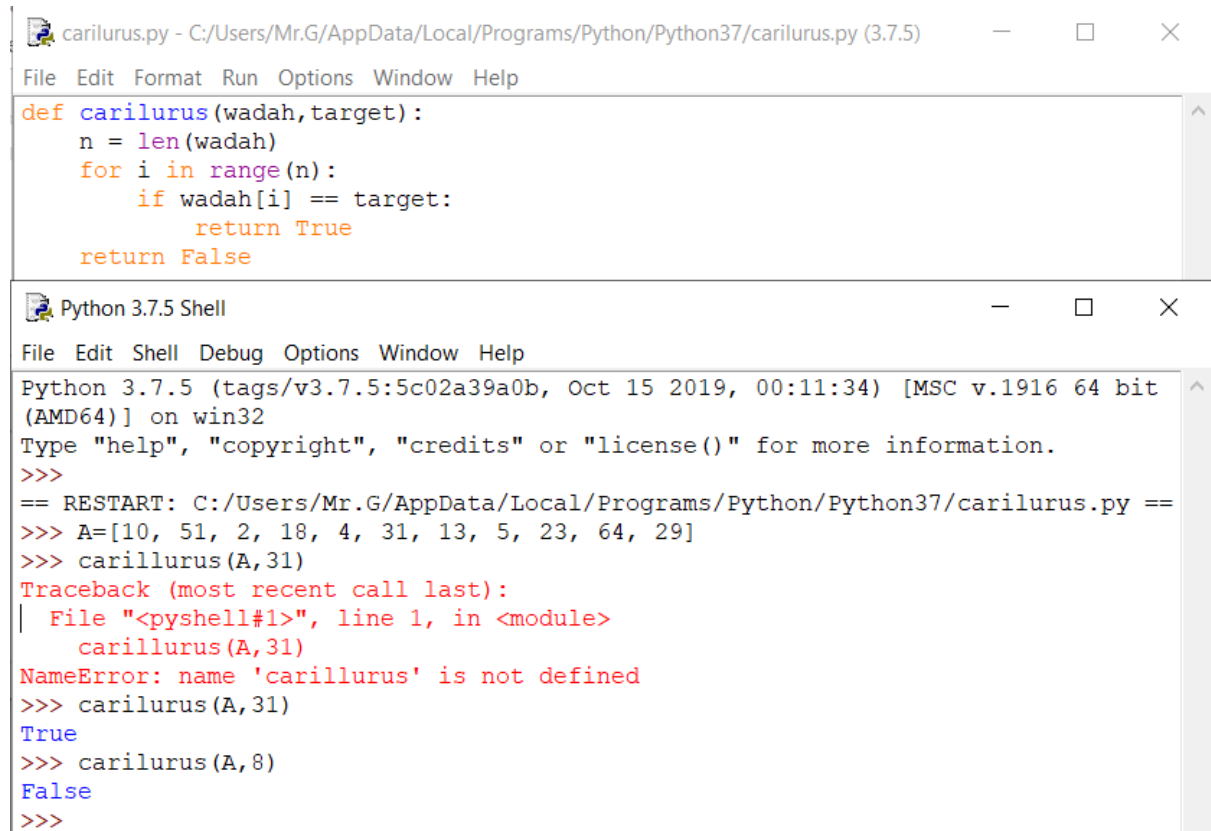
```
binse.py - C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/binse.py (3.7.5)
File Edit Format Run Options Window Help

def Binse(kumpulan,target):
    #mulai dari seluruh runtutan elemen
    low = 0
    high = len(kumpulan) - 1
    #secara berulang belah runtutan itu menjadi separuhnya
    #sampai targetnya ditemukan
    while low <= high :
        #temukan pertengahan runtut itu
        mid = (high + low) // 2
        #apakah pertengahan memuat target ?
        if kumpulan[mid] == target:
            return True
        #ataukah targetnya disebelah kirinya?
        elif target < kumpulan[mid]:
            high = mid - 1
        #ataukah targetnya di sebelah kanannya ?
        else:
            low = mid + 1
    #jika runtutnya tidak bisa di belah lagi,berarti targetnya tidak ada
    return False

Python 3.7.5 Shell
File Edit Shell Debug Options Window Help

Python 3.7.5 (tags/v3.7.5:5c02a39a0b, Oct 15 2019, 00:11:34) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/binse.py ====
>>> A=[5,6,3,17,14,15,62,18]
>>> bINSE(a,17)
Traceback (most recent call last):
  File "<pyshell#1>", line 1, in <module>
    bINSE(a,17)
NameError: name 'bINSE' is not defined
>>> Binse(A,17)
True
>>> Binse(A,9)
False
>>> |
```

Carilurus



The image shows a screenshot of a Python IDE with two windows. The top window, titled 'carilurus.py - C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/carilurus.py (3.7.5)', contains a Python function definition. The bottom window, titled 'Python 3.7.5 Shell', shows the execution of the script, including a NameError and successful function calls.

```
def carilurus(wadah, target):  
    n = len(wadah)  
    for i in range(n):  
        if wadah[i] == target:  
            return True  
    return False
```

```
Python 3.7.5 (tags/v3.7.5:5c02a39a0b, Oct 15 2019, 00:11:34) [MSC v.1916 64 bit  
(AMD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/carilurus.py ==  
>>> A=[10, 51, 2, 18, 4, 31, 13, 5, 23, 64, 29]  
>>> carillurus(A,31)  
Traceback (most recent call last):  
|   File "<pyshell#1>", line 1, in <module>  
|       carillurus(A,31)  
NameError: name 'carillurus' is not defined  
>>> carilurus(A,31)  
True  
>>> carilurus(A,8)  
False  
>>>
```

Mhstarget

```
mhstarget.py - C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/mhstarget.py (3.7.5)
File Edit Format Run Options Window Help

class Manusia(object):
    """kelas '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

##p1 = Manusia("Fatimah")
##p1.ucapkan salam()

class Mahasiswa(Manusia):
    """class mahasiswa yang dibangun dari kelas manusia"""
    def __init__(self,nama,NIM,kota,us):
        """metode inisiasi ini menutupi metode inisiasi di kelas manusia"""
        self.nama = nama
        self.NIM = NIM
        self.kotatinggal =kota
        self.uangsaku = us
    def __str__(self):
        s = self.nama +",NIM"+ str(self.NIM)\
            +",tinggaldi" + self.kotatinggal \
            +", uangsaku Rp" + str(self.uangsaku) \
            +"tiap bulannya"
        return s
    def ambilnama (self):
        return self.nama
    def ambilNIM(self):
        return self.NIM
    def ambiluangaku(self):
        return self.uangsaku
    def makan(self,s):
        """metode ini menutupi metode 'makan' nya classs manusia.
        mahasiswa kalau makan sambil belajar."""
        print("saya baru saja makan", s,"sambil belajar")
        self.keadaan = "kenyang"

m1 = Mahasiswa("Jamil",234,"surakarta",250000)
m2 = Mahasiswa("andi",365,"magelang",375000)
```

Ln: 74 Col: 0

```
mhstarget.py - C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/mhstarget.py (3.7.5)
File Edit Format Run Options Window Help
m2 = Mahasiswa ("andi", 365, "magelang", 375000)
m3 = Mahasiswa ("Sri", 676, "yogyakarta", 240000)

class MhsTIF(Mahasiswa):
    """class MhsTIF yang dibangun dari class mahasiswa"""
    def katakanpy(self):
        print("python is cool")

c0 = MhsTIF("Ika", 10, "Sukoharjo", 240000)
c1 = MhsTIF("Budi", 51, "Sragen", 230000)
c2 = MhsTIF("Ahmad", 2, "Surakarta", 250000)
c3 = MhsTIF("Candra", 18, "Surakarta", 235000)
c4 = MhsTIF("Eka", 4, "Boyolali", 240000)
c5 = MhsTIF("Fandi", 31, "Salatiga", 250000)
c6 = MhsTIF("Deni", 13, "Klaten", 245000)
c7 = MhsTIF("Galuh", 5, "Wonogiri", 245000)
c8 = MhsTIF("Janto", 23, "Klaten", 245000)
c9 = MhsTIF("Hasan", 64, "Karanganyar", 270000)
c10 = MhsTIF("Khalid", 29, "Purwodadi", 265000)

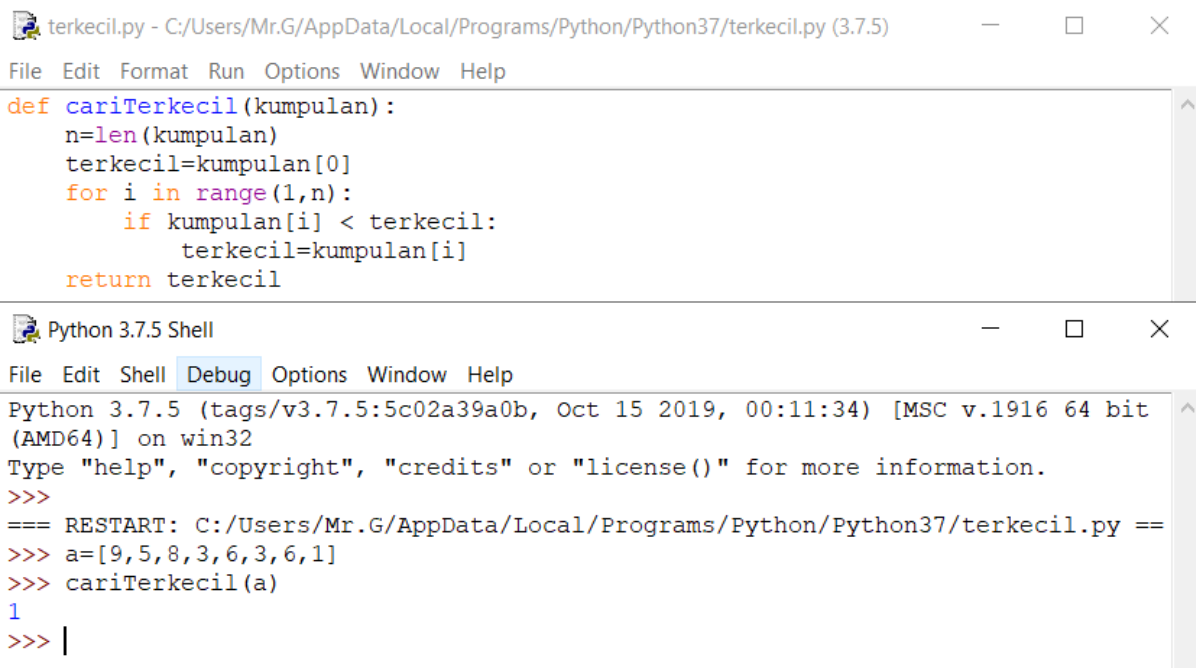
Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]

target = "Klaten"
for i in Daftar:
    if i.kotatinggal == target:
        print(i.nama + " tinggal di "+target)

Python 3.7.5 Shell
File Edit Shell Debug Options Window Help
Python 3.7.5 (tags/v3.7.5:5c02a39a0b, Oct 15 2019, 00:11:34) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/mhstarget.py ==
Deni tinggal di Klaten
Janto tinggal di Klaten
>>> |
```

Ln: 7 Col: 4

Terkecil



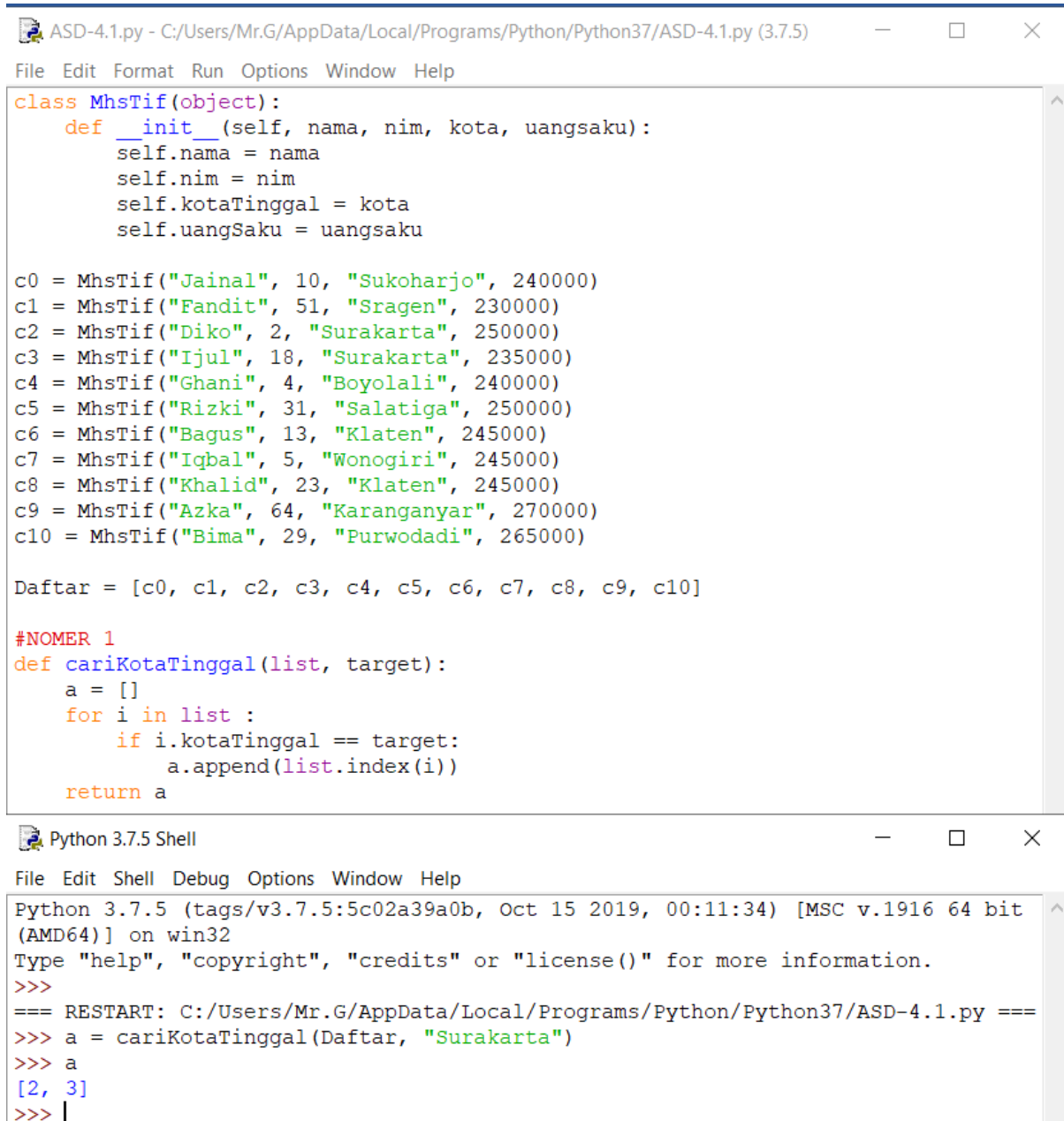
The image shows a screenshot of a Python IDE with two windows. The top window, titled 'terkecil.py - C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/terkecil.py (3.7.5)', contains a Python function 'cariTerkecil' that takes a list 'kumpulan' and returns its minimum value. The function uses 'len' to get the list length, initializes 'terkecil' with the first element, and iterates through the list to find a smaller element. The bottom window, titled 'Python 3.7.5 Shell', shows the execution of the script. It displays the restart path, the list 'a=[9,5,8,3,6,3,6,1]', and the result of 'cariTerkecil(a)', which is '1'.

```
def cariTerkecil(kumpulan):  
    n=len(kumpulan)  
    terkecil=kumpulan[0]  
    for i in range(1,n):  
        if kumpulan[i] < terkecil:  
            terkecil=kumpulan[i]  
    return terkecil
```

```
Python 3.7.5 (tags/v3.7.5:5c02a39a0b, Oct 15 2019, 00:11:34) [MSC v.1916 64 bit  
(AMD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
=== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/terkecil.py ==  
>>> a=[9,5,8,3,6,3,6,1]  
>>> cariTerkecil(a)  
1  
>>> |
```

TUGAS

1.



The image shows a screenshot of a Python IDE with two windows. The top window, titled 'ASD-4.1.py', contains a Python class definition for 'MhsTif' and a list of student objects. The bottom window, titled 'Python 3.7.5 Shell', shows the execution of the code, including a function call to 'cariKotaTinggal' and its output.

```
ASD-4.1.py - C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.1.py (3.7.5)
File Edit Format Run Options Window Help

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

c0 = MhsTif("Jainal", 10, "Sukoharjo", 240000)
c1 = MhsTif("Fandit", 51, "Sragen", 230000)
c2 = MhsTif("Diko", 2, "Surakarta", 250000)
c3 = MhsTif("Ijul", 18, "Surakarta", 235000)
c4 = MhsTif("Ghani", 4, "Boyolali", 240000)
c5 = MhsTif("Rizki", 31, "Salatiga", 250000)
c6 = MhsTif("Bagus", 13, "Klaten", 245000)
c7 = MhsTif("Iqbal", 5, "Wonogiri", 245000)
c8 = MhsTif("Khalid", 23, "Klaten", 245000)
c9 = MhsTif("Azka", 64, "Karanganyar", 270000)
c10 = MhsTif("Bima", 29, "Purwodadi", 265000)

Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]

#NOMER 1
def cariKotaTinggal(list, target):
    a = []
    for i in list :
        if i.kotaTinggal == target:
            a.append(list.index(i))
    return a

Python 3.7.5 Shell
File Edit Shell Debug Options Window Help

Python 3.7.5 (tags/v3.7.5:5c02a39a0b, Oct 15 2019, 00:11:34) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.1.py ===
>>> a = cariKotaTinggal(Daftar, "Surakarta")
>>> a
[2, 3]
>>> |
```

2.

```
ASD-4.2.py - C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.2.py (3.7.5)
File Edit Format Run Options Window Help

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

c0 = MhsTif("Jainal", 10, "Sukoharjo", 240000)
c1 = MhsTif("Fandit", 51, "Sragen", 230000)
c2 = MhsTif("Diko", 2, "Surakarta", 250000)
c3 = MhsTif("Ijul", 18, "Surakarta", 235000)
c4 = MhsTif("Ghani", 4, "Boyolali", 240000)
c5 = MhsTif("Rizki", 31, "Salatiga", 250000)
c6 = MhsTif("Bagus", 13, "Klaten", 245000)
c7 = MhsTif("Iqbal", 5, "Wonogiri", 245000)
c8 = MhsTif("Khalid", 23, "Klaten", 245000)
c9 = MhsTif("Azka", 64, "Karanganyar", 270000)
c10 = MhsTif("Bima", 29, "Purwodadi", 265000)

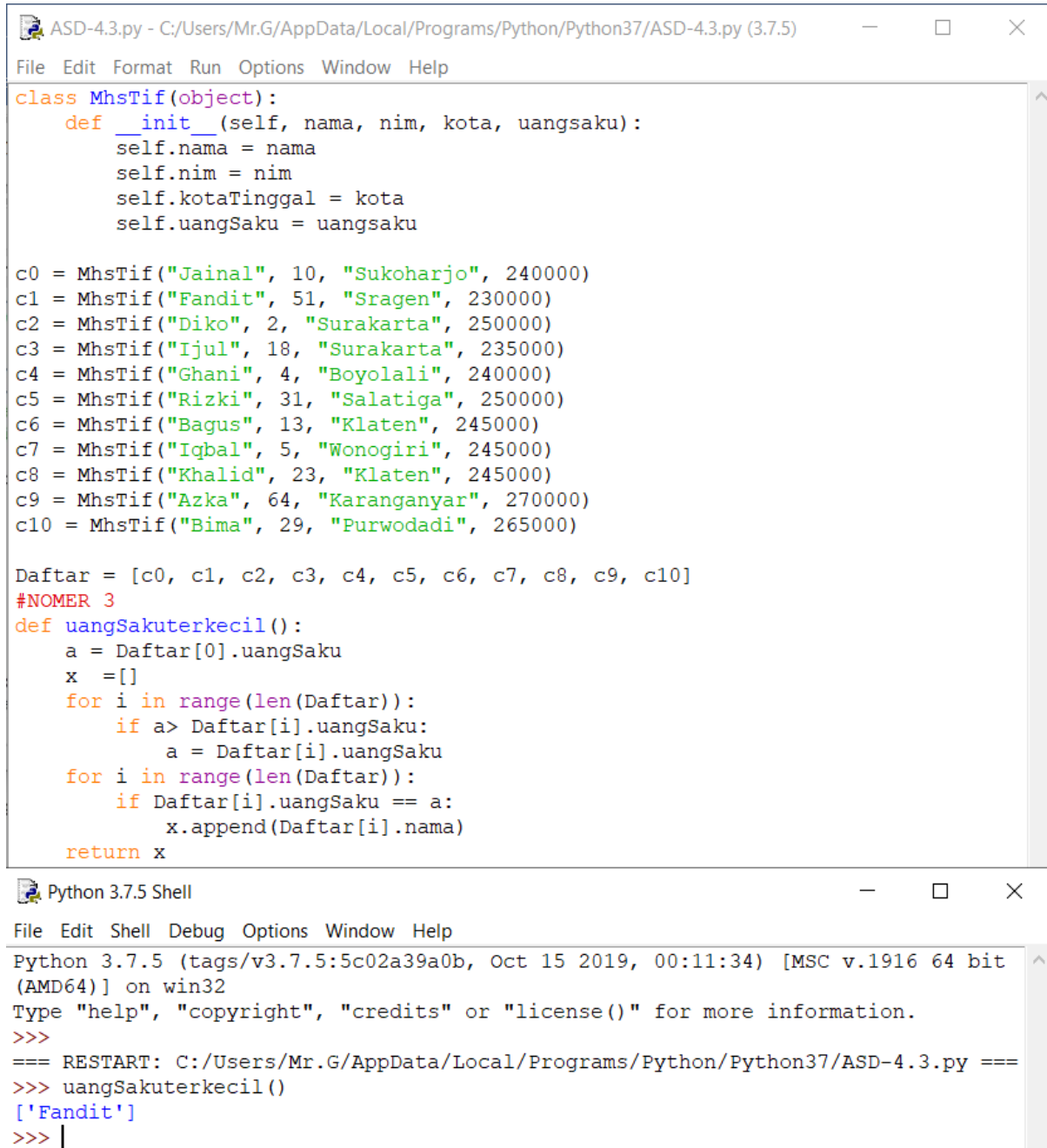
Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]

#NOMER 2
def cariUangSakuTerkecil(list):
    temp = list[0].uangSaku
    for i in list[1:]:
        if i.uangSaku < temp:
            temp = i.uangSaku
    return temp

Python 3.7.5 Shell
File Edit Shell Debug Options Window Help

Python 3.7.5 (tags/v3.7.5:5c02a39a0b, Oct 15 2019, 00:11:34) [MSC v.1916
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.2
>>> a = cariUangSakuTerkecil(Daftar)
>>> a
230000
>>> |
```

3.



```
ASD-4.3.py - C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.3.py (3.7.5)
File Edit Format Run Options Window Help

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

c0 = MhsTif("Jainal", 10, "Sukoharjo", 240000)
c1 = MhsTif("Fandit", 51, "Sragen", 230000)
c2 = MhsTif("Diko", 2, "Surakarta", 250000)
c3 = MhsTif("Ijul", 18, "Surakarta", 235000)
c4 = MhsTif("Ghani", 4, "Boyolali", 240000)
c5 = MhsTif("Rizki", 31, "Salatiga", 250000)
c6 = MhsTif("Bagus", 13, "Klaten", 245000)
c7 = MhsTif("Iqbal", 5, "Wonogiri", 245000)
c8 = MhsTif("Khalid", 23, "Klaten", 245000)
c9 = MhsTif("Azka", 64, "Karanganyar", 270000)
c10 = MhsTif("Bima", 29, "Purwodadi", 265000)

Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]
#NOMER 3
def uangSakuterkecil():
    a = Daftar[0].uangSaku
    x = []
    for i in range(len(Daftar)):
        if a > Daftar[i].uangSaku:
            a = Daftar[i].uangSaku
    for i in range(len(Daftar)):
        if Daftar[i].uangSaku == a:
            x.append(Daftar[i].nama)
    return x

Python 3.7.5 Shell
File Edit Shell Debug Options Window Help
Python 3.7.5 (tags/v3.7.5:5c02a39a0b, Oct 15 2019, 00:11:34) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.3.py ===
>>> uangSakuterkecil()
['Fandit']
>>> |
```


4.

```
ASD-4.4.py - C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.4.py (3.7.5)
File Edit Format Run Options Window Help

class MhsTif(object):
    def __init__(self, nama, nim, kota, uangsku):
        self.nama = nama
        self.nim = nim
        self.kotaTinggal = kota
        self.uangSaku = uangsku

c0 = MhsTif("Jainal", 10, "Sukoharjo", 240000)
c1 = MhsTif("Fandit", 51, "Sragen", 230000)
c2 = MhsTif("Diko", 2, "Surakarta", 250000)
c3 = MhsTif("Ijul", 18, "Surakarta", 235000)
c4 = MhsTif("Ghani", 4, "Boyolali", 240000)
c5 = MhsTif("Rizki", 31, "Salatiga", 250000)
c6 = MhsTif("Bagus", 13, "Klaten", 245000)
c7 = MhsTif("Iqbal", 5, "Wonogiri", 245000)
c8 = MhsTif("Khalid", 23, "Klaten", 245000)
c9 = MhsTif("Azka", 64, "Karanganyar", 270000)
c10 = MhsTif("Bima", 29, "Purwodadi", 265000)

Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]
#NOMER 4
def uangSakukurang25k():
    x = []
    for i in range(len(Daftar)):

        if Daftar[i].uangSaku < 250000:
            x.append(Daftar[i].nama)
    return x

Python 3.7.5 Shell
File Edit Shell Debug Options Window Help

Python 3.7.5 (tags/v3.7.5:5c02a39a0b, Oct 15 2019, 00:11:34) [MSC v.1916 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.4.py ===
>>> uangSakukurang25k()
['Jainal', 'Fandit', 'Ijul', 'Ghani', 'Bagus', 'Iqbal', 'Khalid']
>>> |
```

5.

```
Python 3.7.5 Shell
File Edit Shell Debug Options Window Help
Python 3.7.5 (tags/v3.7.5:5c02a39a0b, Oct 15 2019, 00:11:34) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.5.py ===
>>> a = node(17)
>>> draf = a
>>> a.next = node(19)
>>> a = a.next
>>> a.next = node(11)
>>> a = a.next
>>> a.next = node(45)
>>> a = a.next
>>> draf.cari(45)
Data 45 tidak ada dalam Linked List
>>> draf.cari(25)
Data 25 tidak ada dalam Linked List
>>> |

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

c0 = MhsTif("Jainal", 10, "Sukoharjo", 240000)
c1 = MhsTif("Fandit", 51, "Sragen", 230000)
c2 = MhsTif("Diko", 2, "Surakarta", 250000)
c3 = MhsTif("Ijul", 18, "Surakarta", 235000)
c4 = MhsTif("Ghani", 4, "Boyolali", 240000)
c5 = MhsTif("Rizki", 31, "Salatiga", 250000)
c6 = MhsTif("Bagus", 13, "Klaten", 245000)
c7 = MhsTif("Iqbal", 5, "Wonogiri", 245000)
c8 = MhsTif("Khalid", 23, "Klaten", 245000)
c9 = MhsTif("Azka", 64, "Karanganyar", 270000)
c10 = MhsTif("Bima", 29, "Purwodadi", 265000)

Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]
#NOMER 5
class node(object):
    def __init__(self, data, next = None):
        self.data = data
        self.next = next

    def cari(self, dicari):
        cur = self
        while cur is not None:
            if cur.next != None:
                if cur.data != dicari:
                    cur = cur.next
            else:
                print ("Data", dicari, "ada dalam Linked List")
                break
        elif cur.next == None:
            print ("Data", dicari, "tidak ada dalam Linked List")
            break
```

6.

```
Python 3.7.5 Shell
File Edit Shell Debug Options Window Help
Python 3.7.5 (tags/v3.7.5:5c02a39a0b, Oct 15 2019, 00:11:34) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.6.py ===
>>>
=== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.6.py ===
>>> kumpulan = [2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]
>>> (binSe(kumpulan, 5))
Traceback (most recent call last):
  File "<pyshell#1>", line 1, in <module>
    (binSe(kumpulan, 5))
NameError: name 'binSe' is not defined
>>> (binse(kumpulan, 5))
Traceback (most recent call last):
  File "<pyshell#2>", line 1, in <module>
    (binse(kumpulan, 5))
NameError: name 'binse' is not defined
>>> (binSe(kumpulan, 5))
>>> |

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

c0 = MhsTif("Jainal", 10, "Sukoharjo", 240000)
c1 = MhsTif("Fandit", 51, "Sragen", 230000)
c2 = MhsTif("Diko", 2, "Surakarta", 250000)
c3 = MhsTif("Ijul", 18, "Surakarta", 235000)
c4 = MhsTif("Ghani", 4, "Boyolali", 240000)
c5 = MhsTif("Rizki", 31, "Salatiga", 250000)
c6 = MhsTif("Bagus", 13, "Klaten", 245000)
c7 = MhsTif("Iqbal", 5, "Wonogiri", 245000)
c8 = MhsTif("Khalid", 23, "Klaten", 245000)
c9 = MhsTif("Azka", 64, "Karanganyar", 270000)
c10 = MhsTif("Bima", 29, "Purwodadi", 265000)

Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]
#NOMER 6
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
```

7.

```
Python 3.7.5 Shell
File Edit Shell Debug Options Window Help
Python 3.7.5 (tags/v3.7.5:5c02a39a0b, Oct 15 2019, 00:11:34) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.7.py ===
>>> kumpulan = [2, 4, 5, 6, 6, 6, 8, 9, 9, 10, 11, 12, 13, 13, 14]
>>> (binSeMass(kumpulan, 6))
[3, 4, 5]
>>> |

ASD-4.7.py - C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.7.py (3.7.5)
File Edit Format Run Options Window Help
class MhsTif(object):
    def __init__(self, nama, nim, kota, uangSaku):
        self.nama = nama
        self.nim = nim
        self.kotaTinggal = kota
        self.uangSaku = uangSaku
c0 = MhsTif("Jainal", 10, "Sukoharjo", 240000)
c1 = MhsTif("Fandit", 51, "Sragen", 230000)
c2 = MhsTif("Diko", 2, "Surakarta", 250000)
c3 = MhsTif("Ijul", 18, "Surakarta", 235000)
c4 = MhsTif("Ghani", 4, "Boyolali", 240000)
c5 = MhsTif("Rizki", 31, "Salatiga", 250000)
c6 = MhsTif("Bagus", 13, "Klaten", 245000)
c7 = MhsTif("Iqbal", 5, "Wonogiri", 245000)
c8 = MhsTif("Khalid", 23, "Klaten", 245000)
c9 = MhsTif("Azka", 64, "Karanganyar", 270000)
c10 = MhsTif("Bima", 29, "Purwodadi", 265000)
Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]
#NOMER 7
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
```

8.

```
Python 3.7.5 Shell
File Edit Shell Debug Options Window Help
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Mr.G/AppData/Local/Programs/Python/Python37/ASD-4.8.py ===
Nomer 8
Ada dua pola
Pertama menggunakan konsep Big-O. Dimana yang dipakai
adalah rumus  $O(\log n)$  dengan rincian  $1 = 1, 2 = 2, 4 = 3, 10 = 4, 100 = 7, 1000 = 10$ .
Di mana log berasal dari pangkat log berbasis 2. Dengan begitu 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!!!

Kedua menggunakan barisan geometri  $Sn = 2^n$ 
    barisan yang terjadi adalah : 2, 4, 8, 16, 32, 64
    Misal angka yang akan diebak adalah 68
    Tebakan ke-1 : 64 dijawab lebih dari itu
    Tebakan ke-2 : 96(dari 64 + 32) dijawab "Kurang dari itu"
    Tebakan ke-3 : 80(dari 64 + 16) dijawab "Kurang dari itu"
    Tebakan ke-4 : 72(dari 64 + 8) dijawab "Kurang dari itu"
    Tebakan ke-5 : 68(dari 64 + 4) dijawab "Lebih dari itu"
    Tebakan ke-6 : 70(dari 68 + 2) dijawab "TEPAT"

>>> |
```

Ln: 38 Col: 4