

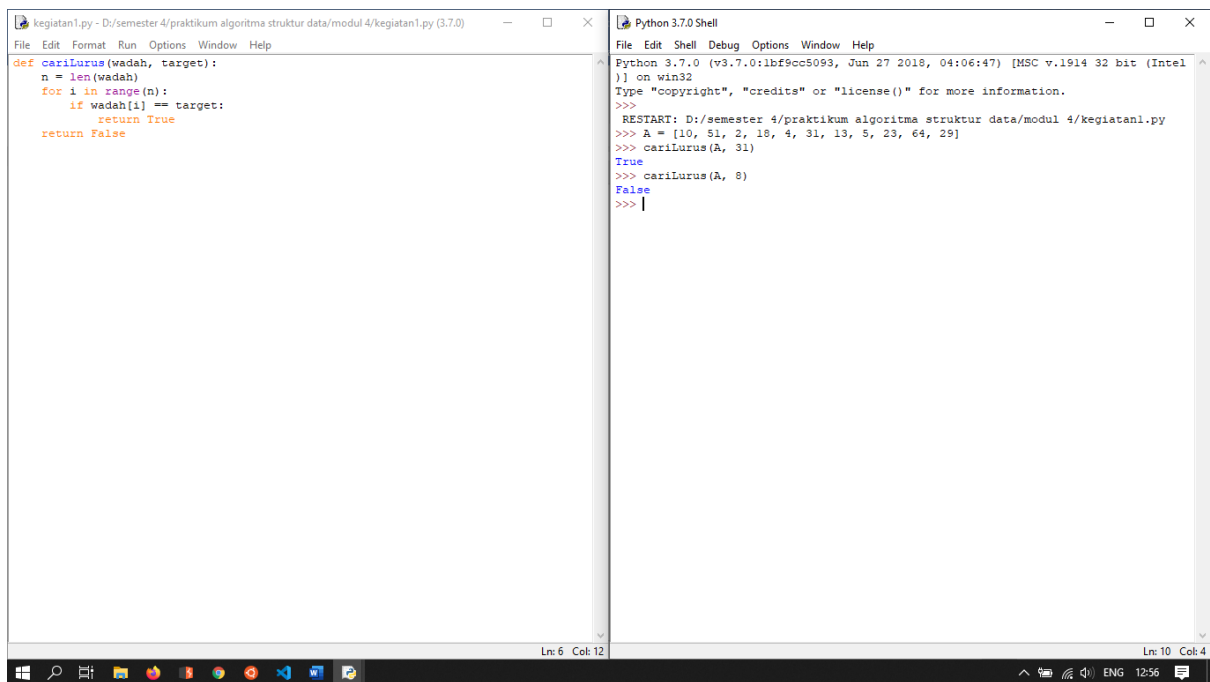
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## Modul 4

### Kegiatan



The screenshot shows a Windows desktop environment with two windows open. The left window is a Python script editor titled 'kegiatan1.py - D:/semester 4/praktikum algoritma struktur data/modul 4/kegiatan1.py (3.7.0)'. It contains a function definition for 'carilurus' that takes a list 'wadah' and a 'target' as arguments. The function iterates through the list and returns True if the target is found, otherwise False. The right window is a 'Python 3.7.0 Shell' titled 'Python 3.7.0 Shell'. It shows the execution of the script, starting with a restart message, followed by the definition of a list 'A' and the execution of the 'carilurus' function with 'A' and '31' as arguments, returning 'True'. The shell also shows the execution of 'carilurus(A, 0)' returning 'False'. The taskbar at the bottom shows various application icons and the system clock indicating 12:56.

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

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:06:47) [MSC v.1914 32 bit (Intel  
)] on win32  
Type "copyright", "credits" or "license()" for more information.  
>>>  
RESTART: D:/semester 4/praktikum algoritma struktur data/modul 4/kegiatan1.py  
>>> A = [10, 51, 2, 18, 4, 31, 13, 5, 23, 64, 29]  
>>> carilurus(A, 31)  
True  
>>> carilurus(A, 0)  
False  
>>> |
```

```
kegiatan1.py - D:/semester 4/praktikum algoritma struktur data/modul 4/kegiatan1.py (3.7.0)
File Edit Format Run Options Window Help
##def cariLurus(wadah, target):
##    n = len(wadah)
##    for i in range(n):
##        if wadah[i] == target:
##            return True
##    return False

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

c0 = MhsTIF("Eka", 10, "Sukoharjo", 240000)
c1 = MhsTIF("Budi", 51, "Sragen", 230000)
c2 = MhsTIF("Ahmad", 2, "Surakarta", 250000)
c3 = MhsTIF("Chandra", 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]

def cariAsal():
    target = 'Klaten'
    for i in Daftar:
        if i.kota == target:
            print(i.nama + ' tinggal di ' + target)

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:06:47) [MSC v.1914 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
RESTART: D:/semester 4/praktikum algoritma struktur data/modul 4/kegiatan1.py
>>> cariAsal()
Deni tinggal di Klaten
Janto tinggal di Klaten
>>>
```

```
kegiatan1.py - Di:semester 4/praktikum algoritma struktur data/modul 4/kegiatan1.py (3.7.0)
File Edit Format Run Options Window Help
self.kota = kota
self.uangSaku = us
def cari_ (self):
    s = self.nama + ', ' + self.nim + ' + str(self.nim)\
        + ' . ' + self.tinggal + ' di ' + self.kota + '\
        + ' . ' + self.uang_saku + ' Rp ' + str(self.uangSalu)\
        + ' . ' + self.tiap_bulan + ' nya.'
    return s

c0 = MhsTIF("Ika", 10, "Sukoharjo", 240000)
c1 = MhsTIF("Budi", 51, "Sragen", 230000)
c2 = MhsTIF("Ahmad", 2, "Surakarta", 250000)
c3 = MhsTIF("Chandra", 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]

def cariAsal():
    target = 'Klaten'
    for i in Daftar:
        if i.kota == target:
            print(i.nama + ' tinggal di ' + target)

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

kumpulan = [2, 5, 753, 24, 25, 3, 5, 7, 12]
cariTerkecil(kumpulan)
```

The image shows two side-by-side code editors. The left editor displays a Python script for binary search. It includes a function `cariTerkecil(kumpulan)` that finds the minimum index of a target in a sorted list, and a function `binSe(kumpulan, target)` that performs a binary search. The script also includes a `def binSe(kumpulan, target):` block that implements the binary search logic with `low` and `high` pointers. The right editor shows the output of running the script, displaying the RESTART path and the results of `binSe(kumpulan, 10)`, `binSe(kumpulan, 12)`, and `binSe(kumpulan, 31)` calls, which return `True`, `False`, and `True` respectively.