

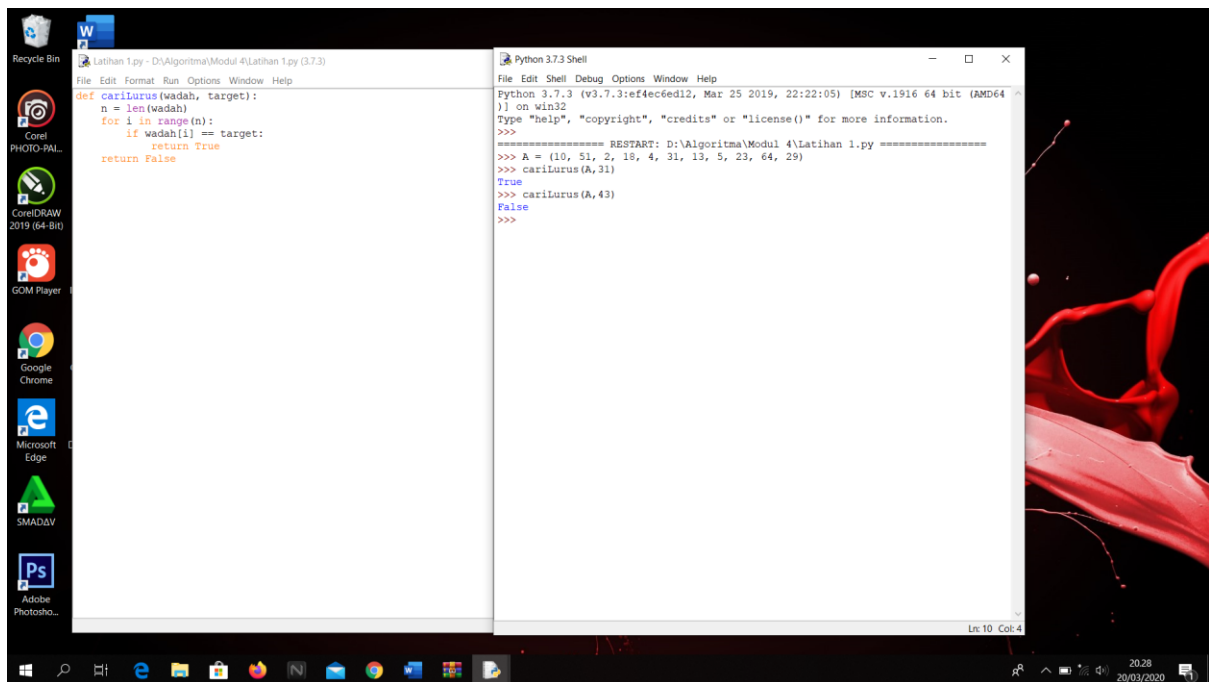
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Kelas : C

Kegiatan Praktikum Modul 4

1. Linear Search

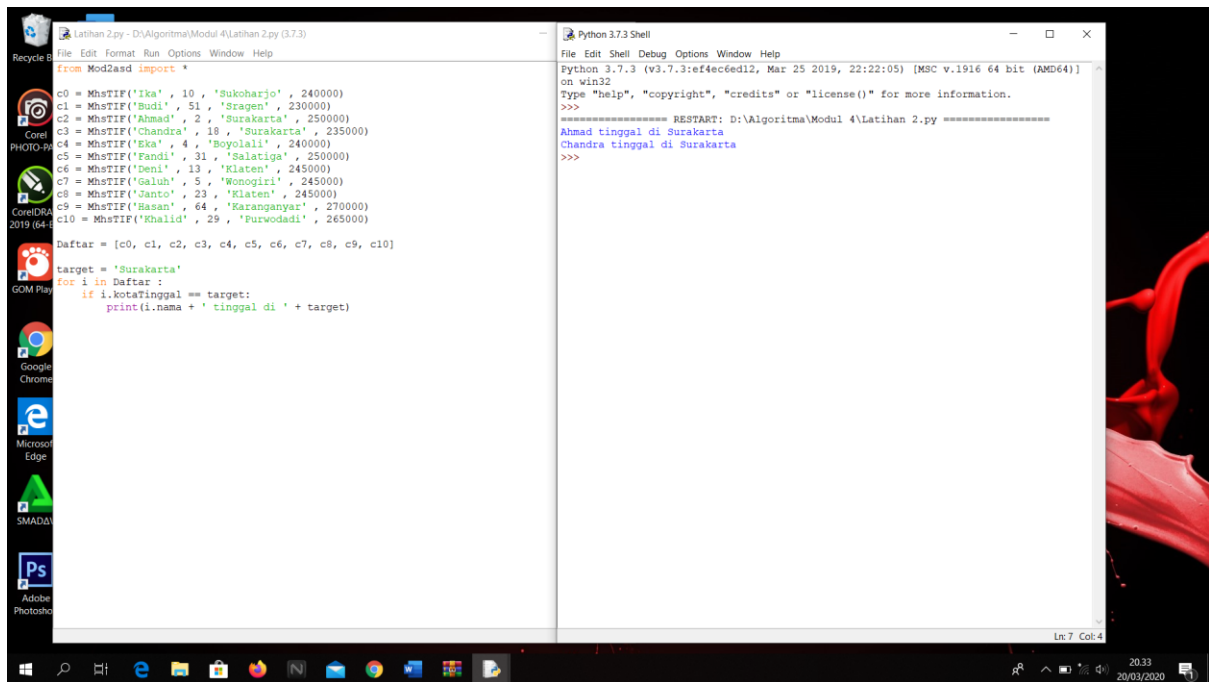


The screenshot shows a Windows desktop with a taskbar at the bottom. On the left, there is a vertical list of application icons including Recycle Bin, Word, Corel PHOTO-PAL, CorelDRAW 2019 (64-bit), GOM Player, Google Chrome, Microsoft Edge, SMADAV, and Adobe Photoshop. The main area of the screen is divided into two windows. The left window, titled 'Latihan 1.py - D:\Algoritma\Modul 4\Latihan 1.py (3.7.3)', contains a Python function definition for a linear search algorithm. The right window, titled 'Python 3.7.3 Shell', shows the execution of the script. It displays the function definition, a restart message, and the results of two function calls: `carilurus(A, 31)` returning `True` and `carilurus(A, 43)` returning `False`.

```
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

Python 3.7.3 Shell
File Edit Shell Debug Options Window Help
Python 3.7.3 (v3.7.3:ef4ec6d12, Mar 25 2019, 22:22:05) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\Algoritma\Modul 4\Latihan 1.py =====
>>> A = (10, 51, 2, 18, 4, 31, 13, 5, 23, 64, 29)
>>> carilurus(A, 31)
True
>>> carilurus(A, 43)
False
>>>
```

2. Pencarian Lurus untuk Objek Buatan Sendiri



```
from Mod2asid import *

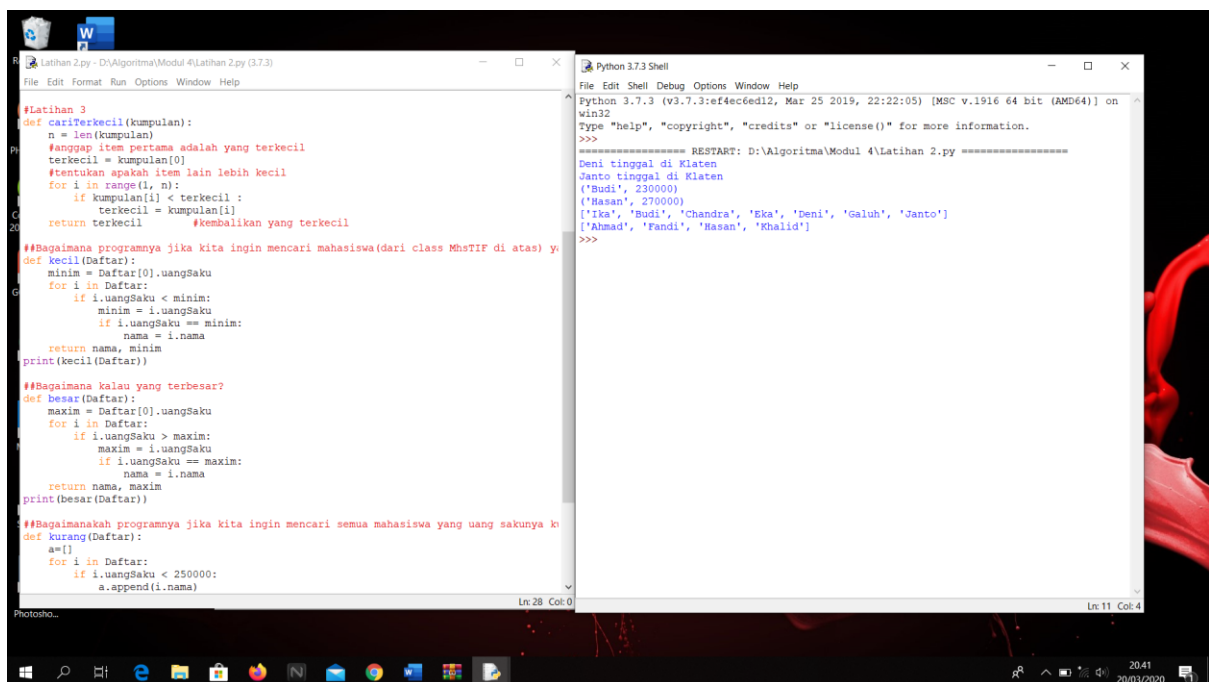
c0 = MhsTIF('Ika', 10, 'Sukoharjo', 240000)
c1 = MhsTIF('Budi', 51, 'Sragen', 230000)
c2 = MhsTIF('Ahmad', 2, 'Surakarta', 250000)
c3 = MhsTIF('Chandra', 18, 'Surakarta', 235000)
c4 = MhsTIF('Eka', 4, 'Boyolali', 240000)
c5 = MhsTIF('Fandi', 31, 'Salatiga', 250000)
c6 = MhsTIF('Deni', 13, 'Klaten', 245000)
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]

target = 'Surakarta'
for i in Daftar:
    if i.kotaTinggal == target:
        print(i.nama + ' tinggal di ' + target)
```

```
Python 3.7.3 Shell
Python 3.7.3 (v3.7.3:ef4ec6d12, Mar 25 2019, 22:22:05) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\Algoritma\Modul 4\Latihan 2.py =====
Ahmad tinggal di Surakarta
Chandra tinggal di Surakarta
>>>
```

3. Pencarian Lurus di Linked List



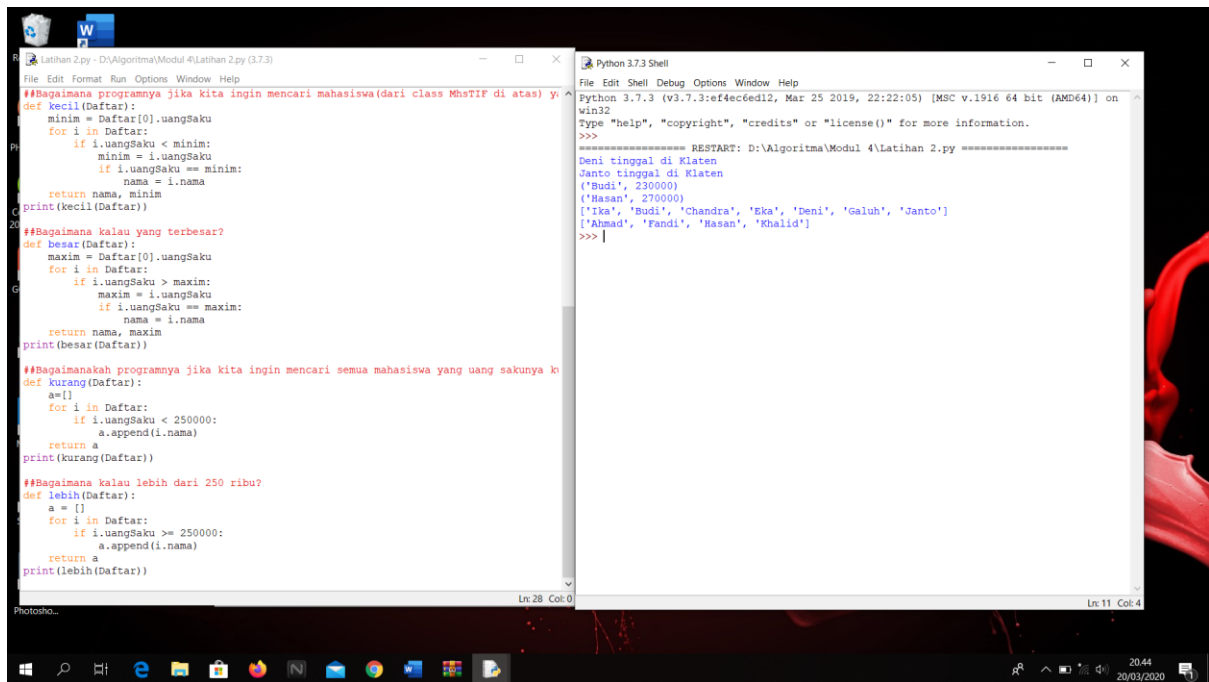
```
##Latihan 3
def cariTerkecil(kumpulan):
    n = len(kumpulan)
    #anggap item pertama adalah yang terkecil
    terkecil = kumpulan[0]
    #tentukan apakah item lain lebih kecil
    for i in range(1, n):
        if kumpulan[i] < terkecil:
            terkecil = kumpulan[i]
    return terkecil #kembalikan yang terkecil

##Bagaimana programnya jika kita ingin mencari mahasiswa(dari class MhsTIF di atas) y:
def kecil(Daftar):
    minim = Daftar[0].uangSaku
    for i in Daftar:
        if i.uangSaku < minim:
            minim = i.uangSaku
        if i.uangSaku == minim:
            nama = i.nama
    return nama, minim
print(kecil(Daftar))

##Bagaimana kalau yang terbesar?
def besar(Daftar):
    maxim = Daftar[0].uangSaku
    for i in Daftar:
        if i.uangSaku > maxim:
            maxim = i.uangSaku
        if i.uangSaku == maxim:
            nama = i.nama
    return nama, maxim
print(besar(Daftar))

##Bagaimanakah programnya jika kita ingin mencari semua mahasiswa yang uang sakunya k:
def kurang(Daftar):
    a=[]
    for i in Daftar:
        if i.uangSaku < 250000:
            a.append(i.nama)
```

```
Python 3.7.3 Shell
Python 3.7.3 (v3.7.3:ef4ec6d12, Mar 25 2019, 22:22:05) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\Algoritma\Modul 4\Latihan 2.py =====
Deni tinggal di Klaten
Janto tinggal di Klaten
('Budi', 230000)
('Hasan', 270000)
['Ika', 'Budi', 'Chandra', 'Eka', 'Deni', 'Galuh', 'Janto']
['Ahmad', 'Fandi', 'Hasan', 'Khalid']
>>>
```



4. Binary Search

