

Nama : Ari wibowo

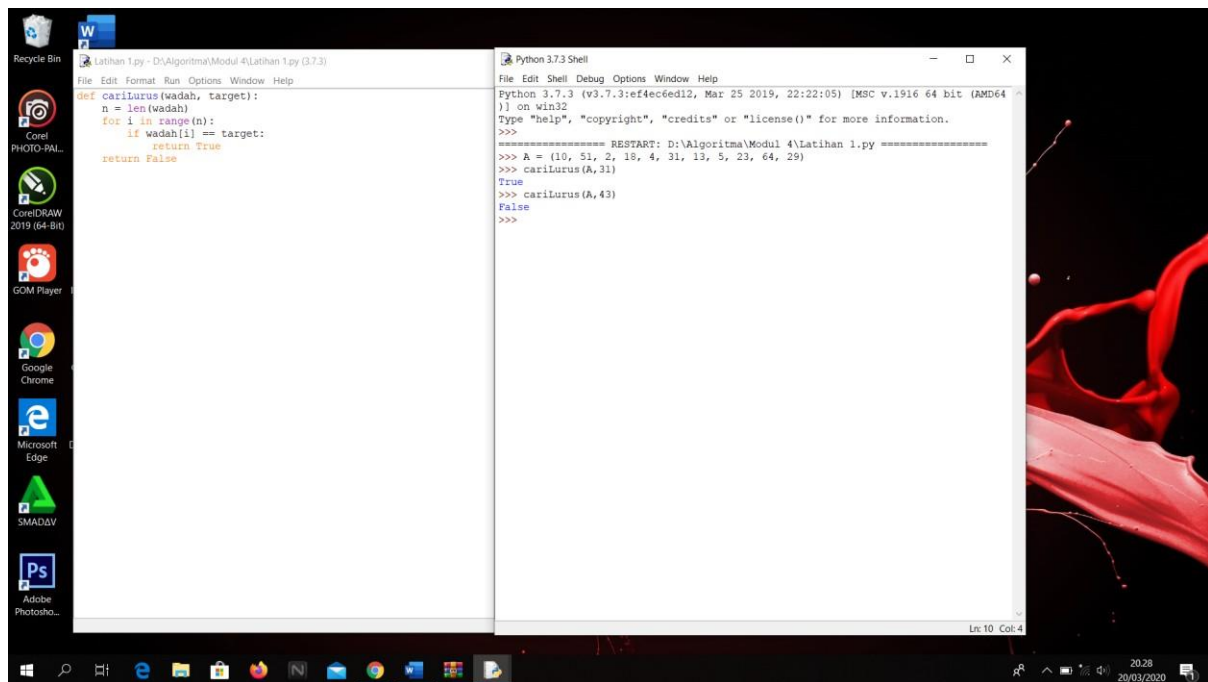
NIM : L200180056

Kelas : C

Kegiatan Praktikum

Modul 4

1. Linear Search



The screenshot displays a Windows desktop environment. On the left, a vertical taskbar contains icons for Recycle Bin, Word, Corel PHOTO-PAL, CorelDRAW 2019 (64-Bit), GOM Player, Google Chrome, Microsoft Edge, SMADAV, and Adobe Photoshop. The main workspace 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 linear search:

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

The right window, titled 'Python 3.7.3 Shell', shows the execution of the script. It displays the Python version and architecture, followed by a restart message and the execution of the function with a list and a target value:

```
Python 3.7.3 (v3.7.3:ef4ec6ed12, 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  
>>>
```

The taskbar at the bottom shows the Start button, search icon, and several pinned application icons. The system tray on the right indicates the time as 20:28 on 20/03/2020.

2. Pencarian Lurus untuk Objek Buatan Sendiri

The screenshot shows a Windows desktop with a taskbar at the bottom. Two windows are open. The left window is a text editor titled 'Latihan 2.py - D:\Algoritma\Modul 4\Latihan 2.py (3.7.3)'. It contains a Python script that defines a list of students with their names, IDs, and savings, and then searches for a specific student. The right window is a 'Python 3.7.3 Shell' showing the output of the script.

```
File Edit Format Run Options Window Help
from Mod2asd 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
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 2.py =====
Ahmad tinggal di Surakarta
Chandra tinggal di Surakarta
>>>
```

3. Pencarian Lurus di Linked List

The screenshot shows a Windows desktop with a taskbar at the bottom. Two windows are open. The left window is a text editor titled 'Latihan 2.py - D:\Algoritma\Modul 4\Latihan 2.py (3.7.3)'. It contains a Python script that defines a linked list and implements search functions. The right window is a 'Python 3.7.3 Shell' showing the output of the script.

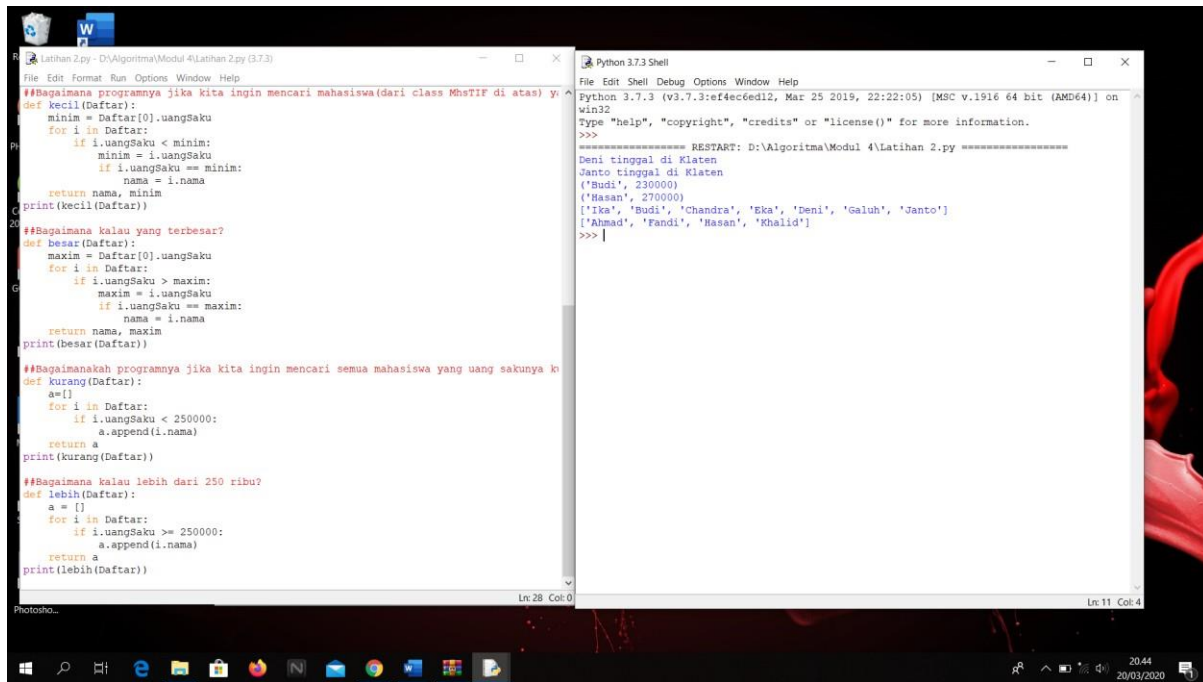
```
File Edit Format Run Options Window Help
#Latihan 3
def cariTerkecil(kumpulan):
    n = len(kumpulan)
    #anggap item pertama adalah yang terkecil
    terkecil = kumpulan[0]
    #tentukan apakah item lain lebih kecil
    for i in range(1, n):
        if kumpulan[i] < terkecil:
            terkecil = 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
            nama = i.nama
    return nama, minim
print(kecil(Daftar))

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

