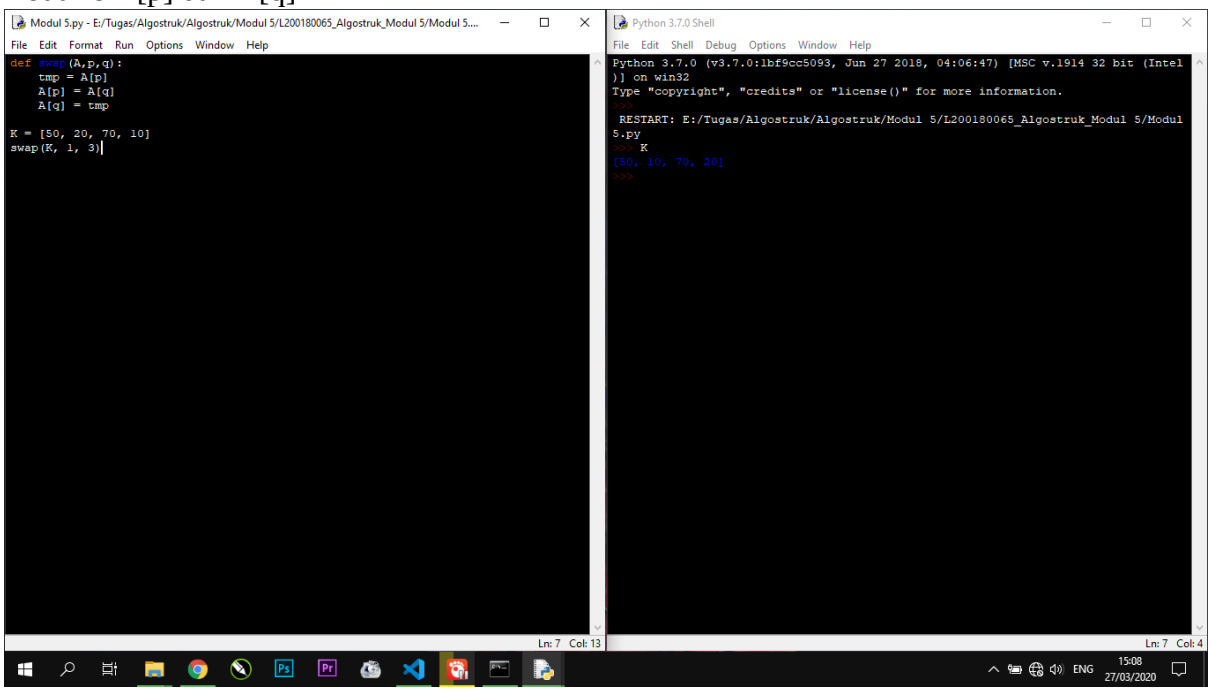
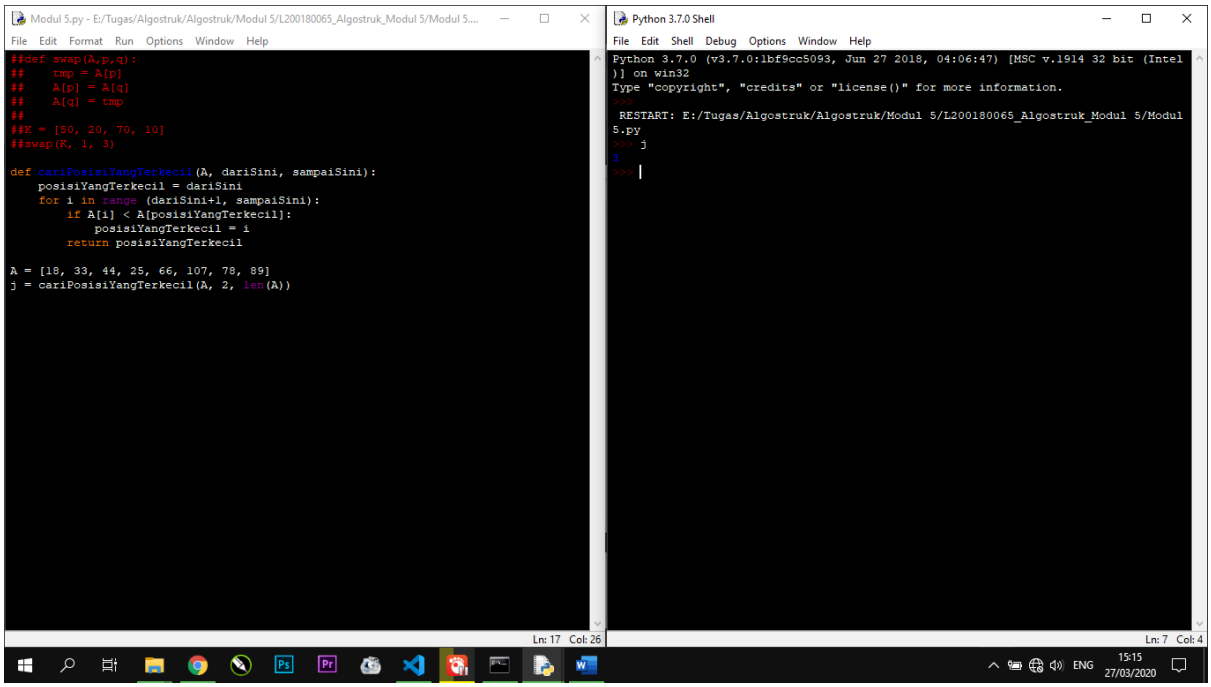
Nama : Wahyu Setyaji Rama Dwijaya
NIM : L200180065
Kelas : C

MODUL 5

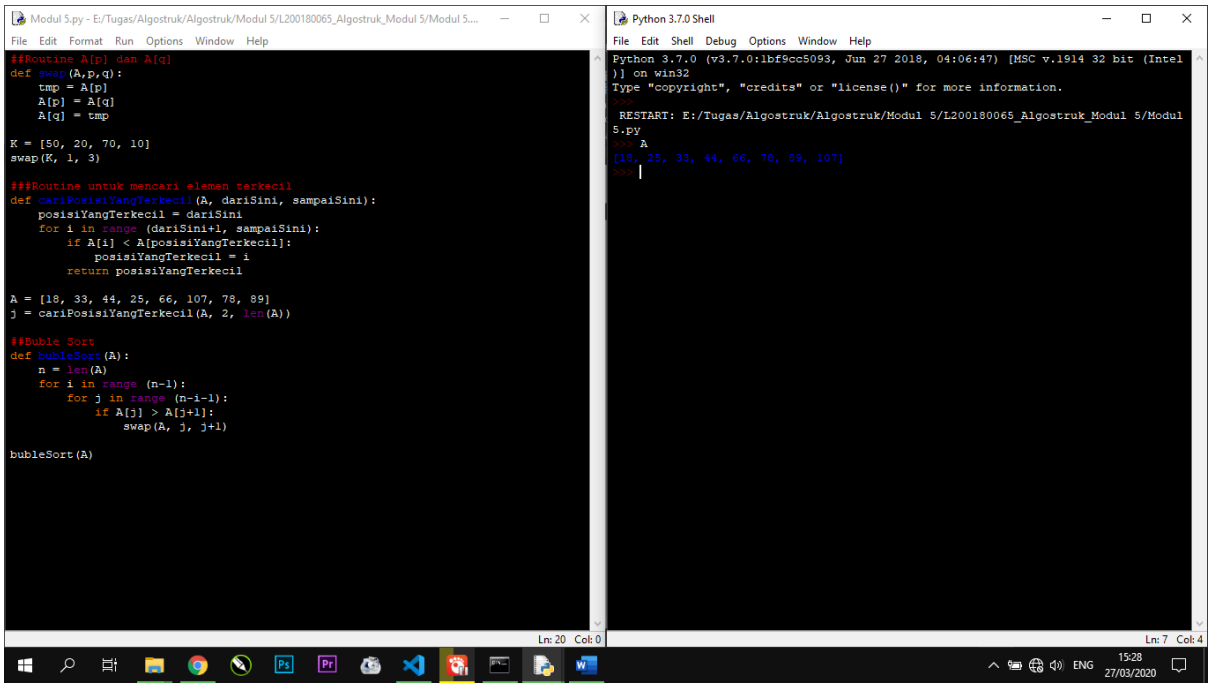
Routine A[p] dan A[q]



Routine untuk mencari elemen terkecil



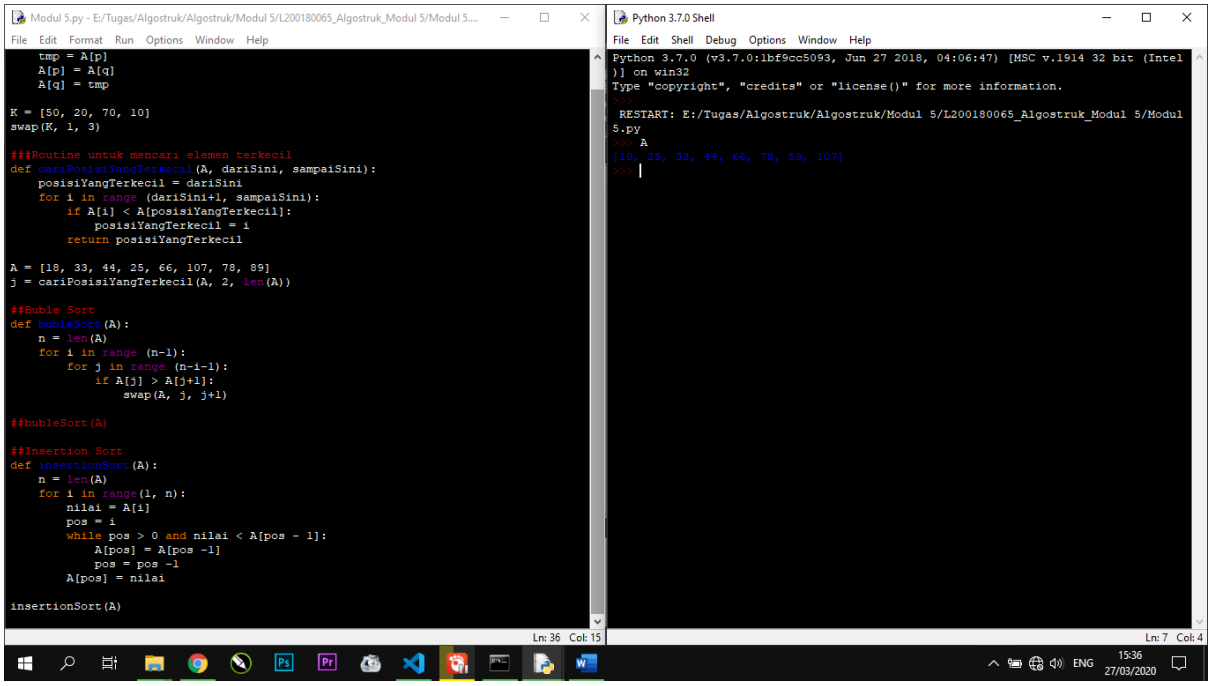
Buble Sort



```
##Routine A[p] dan A[q]
def swap(A,p,q):
    tmp = A[p]
    A[p] = A[q]
    A[q] = tmp

K = [50, 20, 70, 10]
swap(K, 1, 3)

###Routine untuk mencari elemen terkecil
def cariPosisiYangTerkecil(A, dariSini, sampaiSini):
    posisiYangTerkecil = dariSini
    for i in range (dariSini+1, sampaiSini):
        if A[i] < A[posisiYangTerkecil]:
            posisiYangTerkecil = i
        return posisiYangTerkecil

A = [18, 33, 44, 25, 66, 107, 78, 89]
j = cariPosisiYangTerkecil(A, 2, len(A))

##Buble Sort
def bubleSort(A):
    n = len(A)
    for i in range (n-1):
        for j in range (n-i-1):
            if A[j] > A[j+1]:
                swap(A, j, j+1)

bubleSort(A)
```

```
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: E:/Tugas/Algostruk/Algostruk/Modul 5/L200180065_Algostruk_Modul 5/Modul
5.py
>>> A
[18, 25, 33, 44, 66, 78, 89, 107]
>>>
```

Insertion Sort



```
    tmp = A[p]
    A[p] = A[q]
    A[q] = tmp

K = [50, 20, 70, 10]
swap(K, 1, 3)

###Routine untuk mencari elemen terkecil
def cariPosisiYangTerkecil(A, dariSini, sampaiSini):
    posisiYangTerkecil = dariSini
    for i in range (dariSini+1, sampaiSini):
        if A[i] < A[posisiYangTerkecil]:
            posisiYangTerkecil = i
        return posisiYangTerkecil

A = [18, 33, 44, 25, 66, 107, 78, 89]
j = cariPosisiYangTerkecil(A, 2, len(A))

##Buble Sort
def bubleSort(A):
    n = len(A)
    for i in range (n-1):
        for j in range (n-i-1):
            if A[j] > A[j+1]:
                swap(A, j, j+1)

##bubleSort(A)

##Insertion Sort
def insertionSort(A):
    n = len(A)
    for i in range(1, n):
        nilai = A[i]
        pos = i
        while pos > 0 and nilai < A[pos - 1]:
            A[pos] = A[pos -1]
            pos = pos -1
        A[pos] = nilai

insertionSort(A)
```

```
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: E:/Tugas/Algostruk/Algostruk/Modul 5/L200180065_Algostruk_Modul 5/Modul
5.py
>>> A
[18, 25, 33, 44, 66, 78, 89, 107]
>>>
```

Kegiatan 4.2