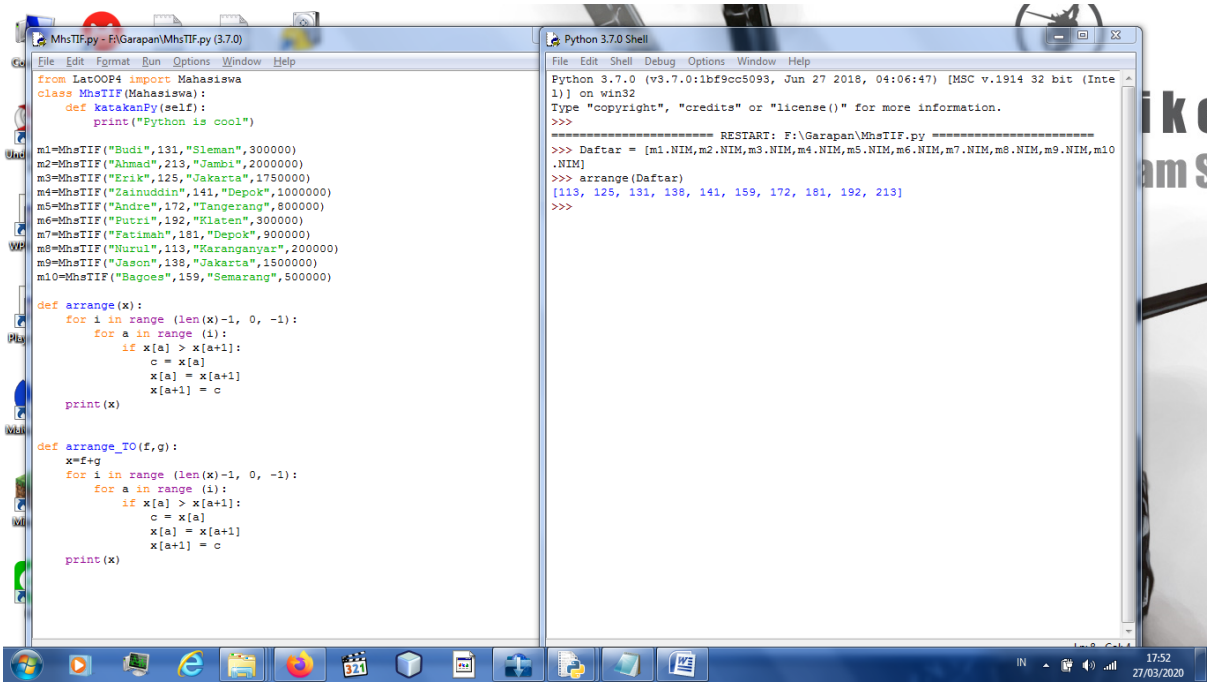
Nama : Noor Aniq W.

NIM : L200180191

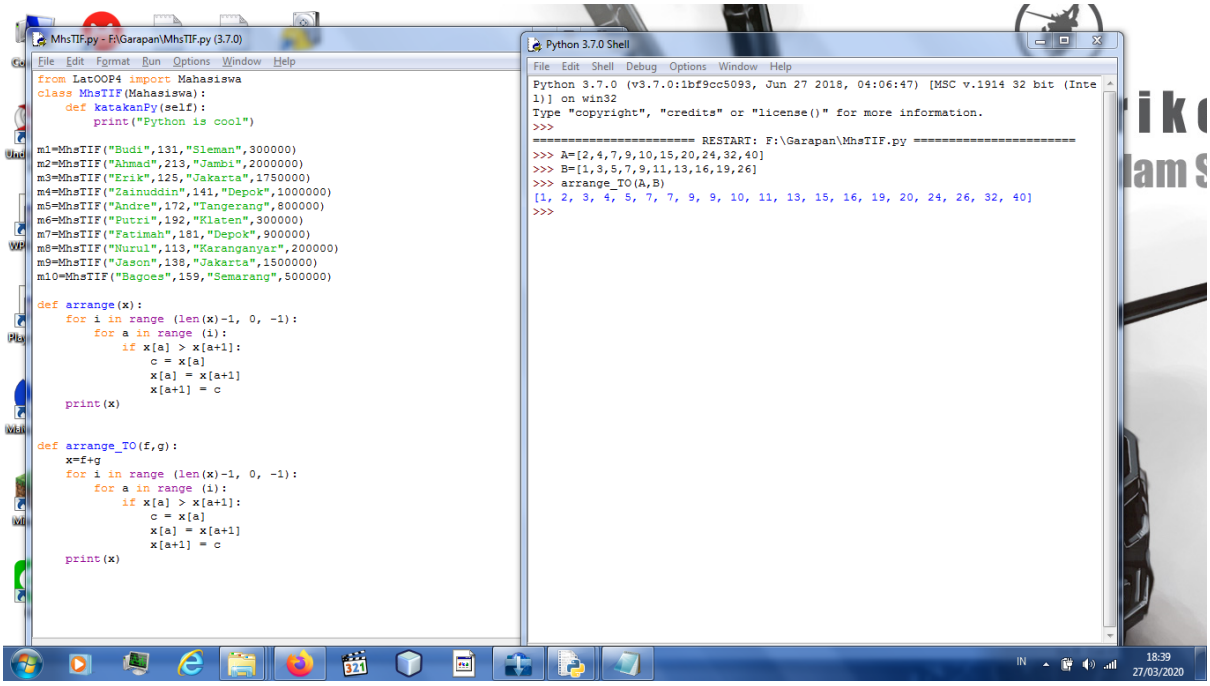
Kelas : G

Praktikum Algoritma dan Struktur Data

1.



2.



3.

Mod5_3.py - F:\Garapan\Mod5_3.py (3.7.0)

File Edit Format Run Options Window Help

```
from time import time as detak
from random import shuffle as kocok

def BubbleSort(a):
    x = len(a)
    for i in range (x-1):
        for c in range (x-i-1):
            if a[c] > a[c+i]:
                swap (a, c, c+1)

def SelectionSort(a):
    x = len(a)
    for i in range (x-1):
        S_Index = FindS(a, i, x)
        if S_Index != i :
            swap (a, i, S_Index)

def InsertionSort(a):
    x = len(a)
    for i in range (1, x):
        n = a[i]
        d = i
        while d > 0 and n < a[d-1]:
            a[d] = a[d-1]
            d = d-1
        a[d] = n

def swap (a, b, c):
    d = a[b]
    a[b] = a[c]
    a[c] = d

def FindS(a, startpt, stoppt):
    smallest = startpt
    for x in range (startpt+1, stoppt):
        if a[x] < a[smallest]:
            smallest = x
    return smallest

k = []
for x in range (1, 6001):
    k.append(x)
```

Ln: 31 Col: 7

Mod5_3.py - F:\Garapan\Mod5_3.py (3.7.0)

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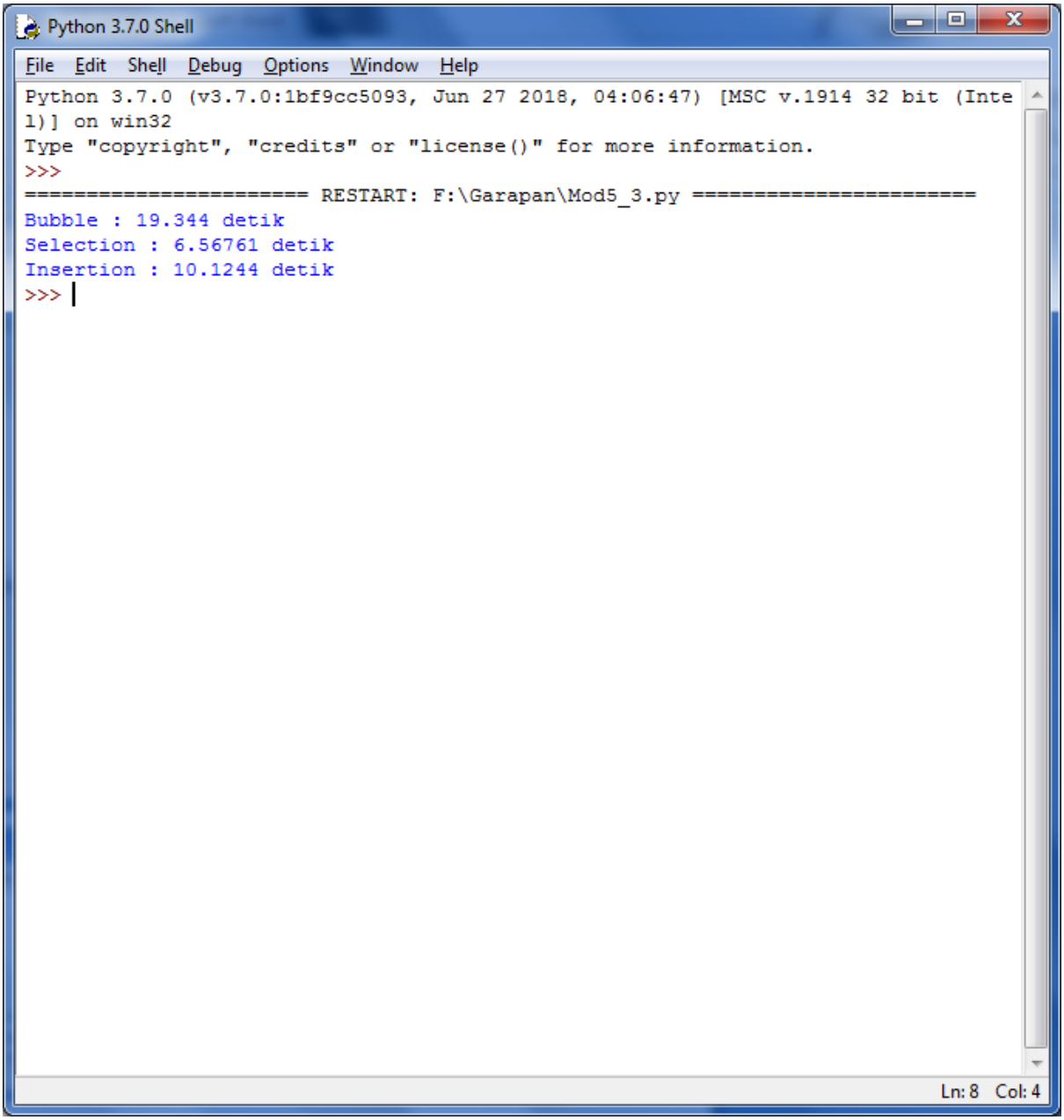
```
kocok(k)

u_bub = k[:]
u_sel = k[:]
u_ins = k[:]

aw = detak(); BubbleSort(u_bub); ak = detak(); print("Bubble : %g detik" %(ak-aw));
aw = detak(); SelectionSort(u_sel); ak = detak(); print("Selection : %g detik" %(ak-aw));
aw = detak(); InsertionSort(u_ins); ak = detak(); print("Insertion : %g detik" %(ak-aw))
```

Ln: 31 Col: 7


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 (Inte
l)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: F:\Garapan\Mod5_3.py ==========
Bubble : 19.344 detik
Selection : 6.56761 detik
Insertion : 10.1244 detik
>>>
Ln: 8 Col: 4