

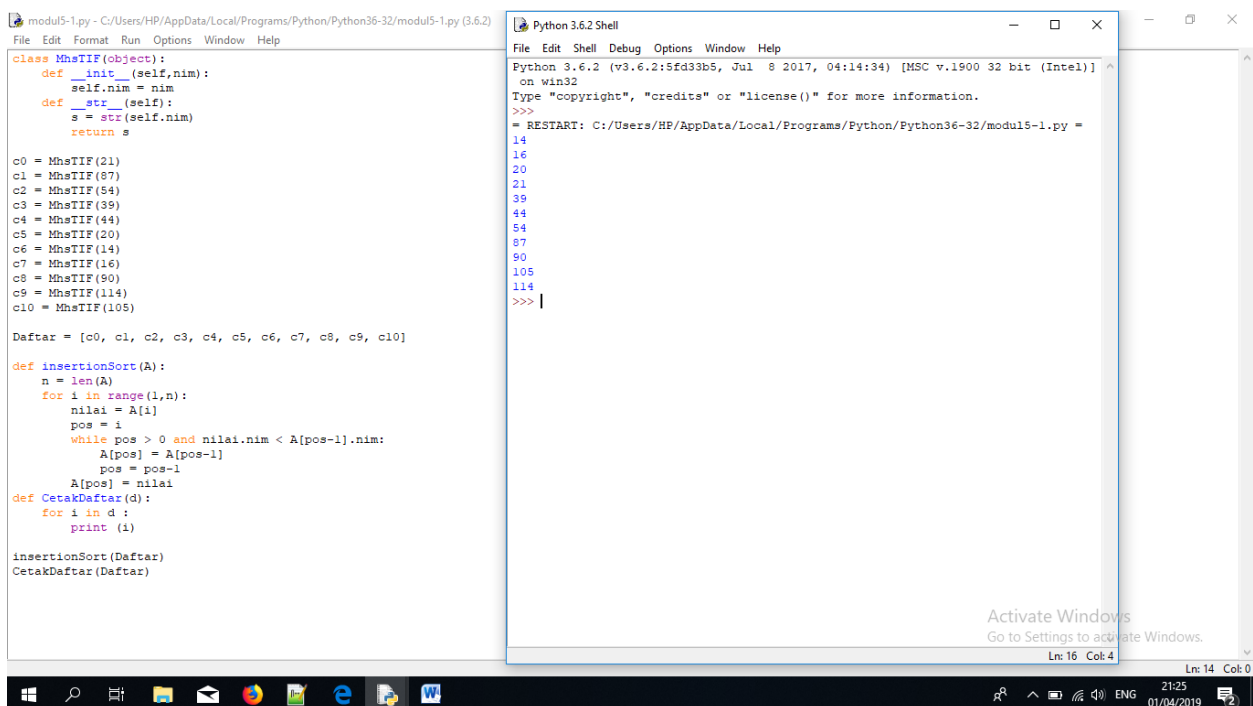
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KELAS : D

MODUL : 5

Nomor 1



The screenshot displays a Python 3.6.2 IDE with two windows. The left window, titled 'modul5-1.py', contains the following code:

```
class MhsTIF(object):
    def __init__(self, nim):
        self.nim = nim
    def __str__(self):
        s = str(self.nim)
        return s

c0 = MhsTIF(21)
c1 = MhsTIF(87)
c2 = MhsTIF(54)
c3 = MhsTIF(39)
c4 = MhsTIF(44)
c5 = MhsTIF(20)
c6 = MhsTIF(14)
c7 = MhsTIF(16)
c8 = MhsTIF(90)
c9 = MhsTIF(114)
c10 = MhsTIF(105)

Daftar = [c0, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10]

def insertionSort(A):
    n = len(A)
    for i in range(1, n):
        nilai = A[i]
        pos = i
        while pos > 0 and nilai.nim < A[pos-1].nim:
            A[pos] = A[pos-1]
            pos = pos-1
        A[pos] = nilai
def CetakDaftar(d):
    for i in d:
        print(i)

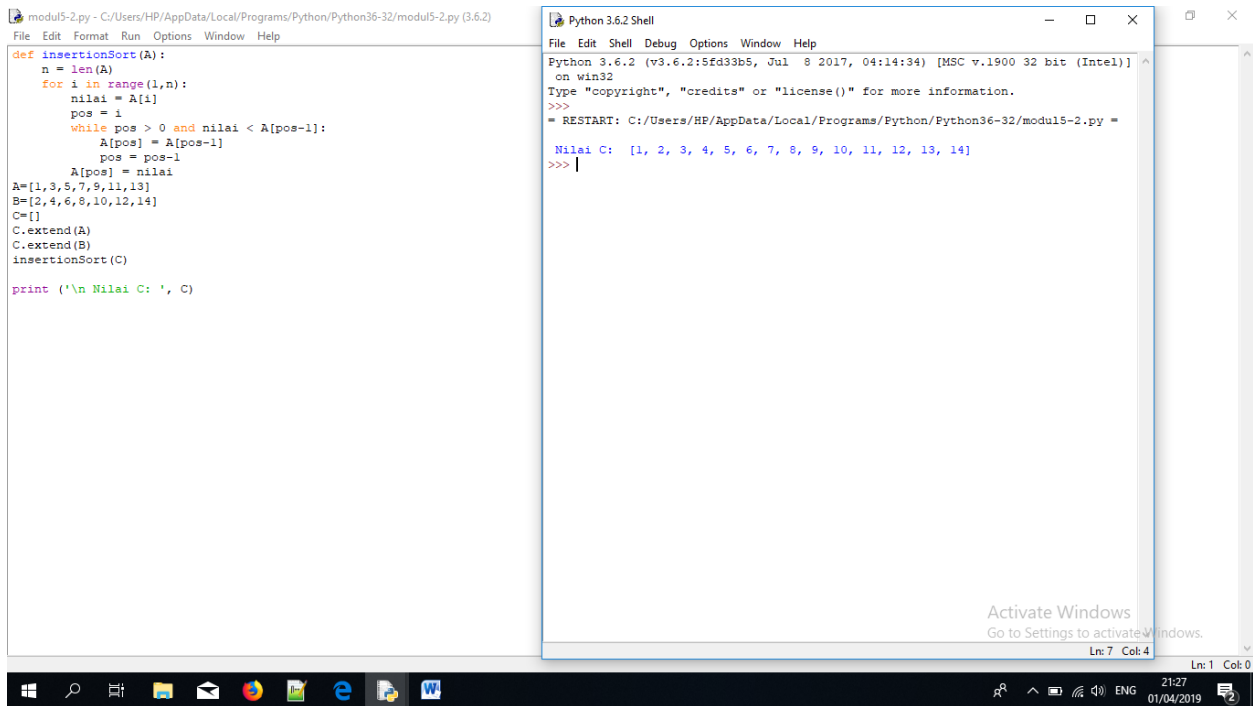
insertionSort(Daftar)
CetakDaftar(Daftar)
```

The right window, titled 'Python 3.6.2 Shell', shows the output of the script:

```
Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/HP/AppData/Local/Programs/Python/Python36-32/modul5-1.py =
14
16
20
21
39
44
54
87
90
105
114
>>> |
```

The taskbar at the bottom shows the Windows Start button, search icon, and several application icons. The system tray on the right indicates the date and time as 01/04/2019, 21:25.

nomor 2



```
modul5-2.py - C:/Users/HP/AppData/Local/Programs/Python/Python36-32/modul5-2.py (3.6.2)
File Edit Format Run Options Window Help

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
A=[1,3,5,7,9,11,13]
B=[2,4,6,8,10,12,14]
C=[]
C.extend(A)
C.extend(B)
insertionSort(C)

print ('\n Nilai C: ', C)
```

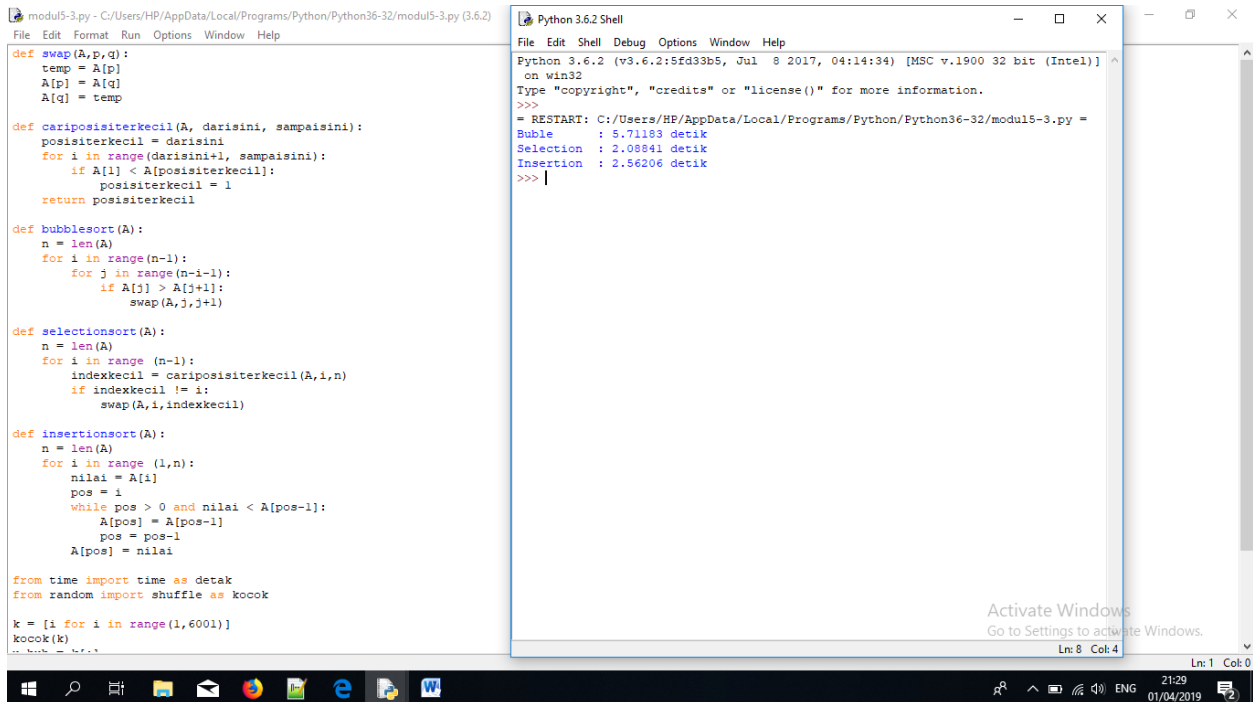
```
Python 3.6.2 Shell
File Edit Shell Debug Options Window Help

Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/HP/AppData/Local/Programs/Python/Python36-32/modul5-2.py =
Nilai C: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14]
>>> |
```

Activate Windows
Go to Settings to activate Windows.

Ln: 7 Cok 4

Nomor 3



```
modul5-3.py - C:/Users/HP/AppData/Local/Programs/Python/Python36-32/modul5-3.py (3.6.2)
File Edit Format Run Options Window Help

def swap(A,p,q):
    temp = A[p]
    A[p] = A[q]
    A[q] = temp

def cariposisiterkecil(A, darisini, sampaisini):
    posisiterkecil = darisini
    for i in range(darisini+1, sampaisini):
        if A[i] < A[posisiterkecil]:
            posisiterkecil = i
    return posisiterkecil

def bubblesort(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)

def selectionsort(A):
    n = len(A)
    for i in range(n-1):
        indexkecil = cariposisiterkecil(A,i,n)
        if indexkecil != i:
            swap(A,i,indexkecil)

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

from time import time as detik
from random import shuffle as kocok

k = [i for i in range(1,6001)]
kocok(k)
```

```
Python 3.6.2 Shell
File Edit Shell Debug Options Window Help

Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/HP/AppData/Local/Programs/Python/Python36-32/modul5-3.py =
Bubble : 5.71183 detik
Selection : 2.08941 detik
Insertion : 2.56206 detik
>>> |
```

Activate Windows
Go to Settings to activate Windows.

Ln: 8 Cok 4