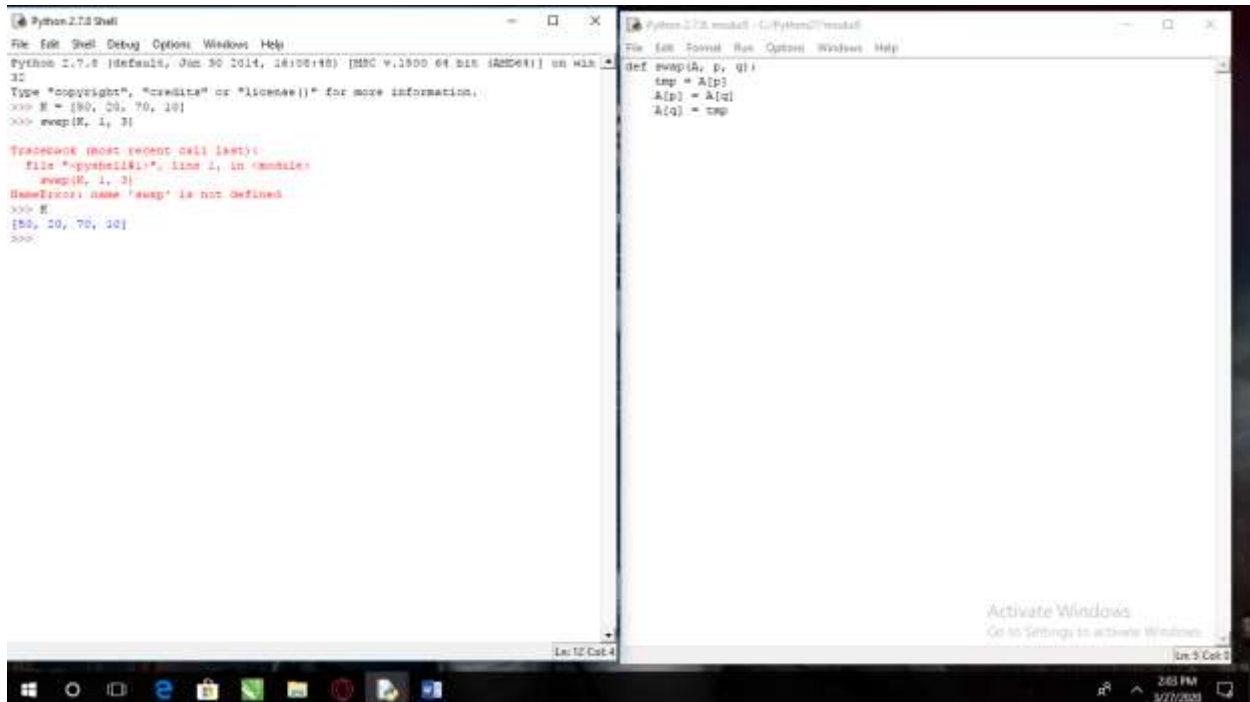


Nama : Defa Raffy Zanuar R

NIM : L200180068

Kelas : C

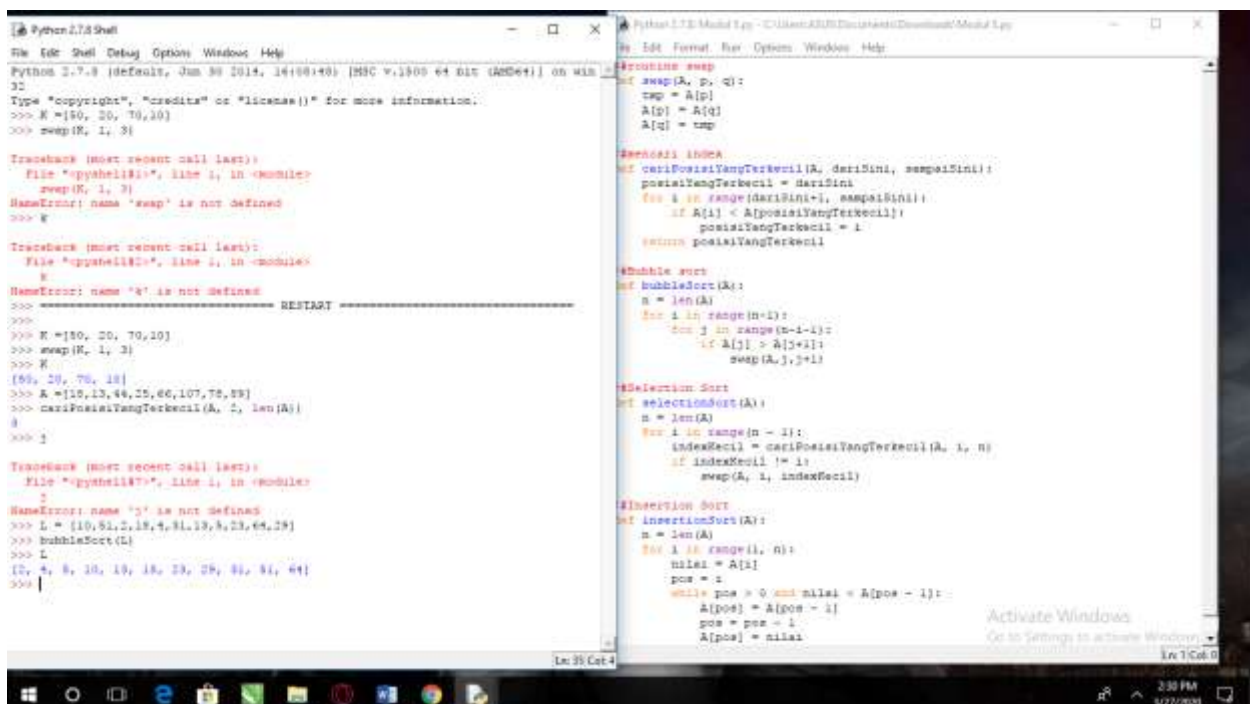
Modul 5



```
Python 2.7.8 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.8 (default, Jan 30 2014, 14:08:43) [MSC v.1500 64 bit (AMD64)] on win32
>>>
Type "copyright", "credits" or "license()" for more information.
>>> K = [50, 20, 70, 10]
>>> swap(K, 1, 3)

Traceback (most recent call last):
  File "<pyshell#1>", line 1, in <module>
    swap(K, 1, 3)
NameError: name 'swap' is not defined
>>> K
[50, 20, 70, 10]
>>>
```

```
Python 2.7.8 module - C:\Python27\module
File Edit Format Run Options Windows Help
def swap(A, p, q):
    tmp = A[p]
    A[p] = A[q]
    A[q] = tmp
```



```
Python 2.7.8 Shell
File Edit Shell Debug Options Windows Help
Python 2.7.8 (default, Jan 30 2014, 14:08:43) [MSC v.1500 64 bit (AMD64)] on win32
>>>
Type "copyright", "credits" or "license()" for more information.
>>> K = [50, 20, 70, 10]
>>> swap(K, 1, 3)

Traceback (most recent call last):
  File "<pyshell#1>", line 1, in <module>
    swap(K, 1, 3)
NameError: name 'swap' is not defined
>>> K
[50, 20, 70, 10]

Traceback (most recent call last):
  File "<pyshell#2>", line 1, in <module>
    K
NameError: name 'K' is not defined
>>> ----- RESTART -----
>>>
>>> K = [50, 20, 70, 10]
>>> swap(K, 1, 3)
[50, 20, 70, 10]
>>> A = [10, 13, 44, 15, 66, 107, 78, 99]
>>> cariPosisiYangTerkecil(A, 2, len(A))
8
>>>
```

```
Python 2.7.8 Modul 5.py - C:\Users\ALDI\Documents\Download\Modul 5.py
File Edit Format Run Options Windows Help
#prosedur swap
def swap(A, p, q):
    tmp = A[p]
    A[p] = A[q]
    A[q] = tmp

#prosedur index
def cariPosisiYangTerkecil(A, dariSini, sampaiSini):
    posisiYangTerkecil = dariSini
    for i in range(dariSini+1, sampaiSini):
        if A[i] < A[posisiYangTerkecil]:
            posisiYangTerkecil = i
    return posisiYangTerkecil

#bubble sort
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)

#Selection Sort
def selectionSort(A):
    n = len(A)
    for i in range(n-1):
        indexKecil = cariPosisiYangTerkecil(A, i, n)
        if indexKecil != i:
            swap(A, i, indexKecil)

#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
```

The image shows two side-by-side Python 2.7.8 Shell windows. The left window contains a script with several errors. The first error is 'NameError: name 'k' is not defined' at line 1, in <module>. The second error is 'NameError: name 'i' is not defined' at line 1, in <module>. The script defines a list 'K' and a function 'swap'. The right window contains a script with several errors. The first error is 'NameError: name 'index' is not defined' at line 1, in <module>. The second error is 'NameError: name 'i' is not defined' at line 1, in <module>. The script defines a list 'A' and a function 'swap'. Both scripts are implementing sorting algorithms: swap, cariPosisiYangTerkecil, bubbleSort, selectionSort, and insertionSort.