

Nama : resky budi nugroho

Nim : l200180018

Kelas : A

## Modul 5 kegiatan

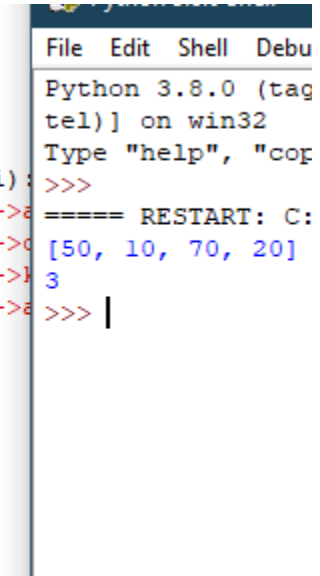
### 1. Nomor 1

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

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

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

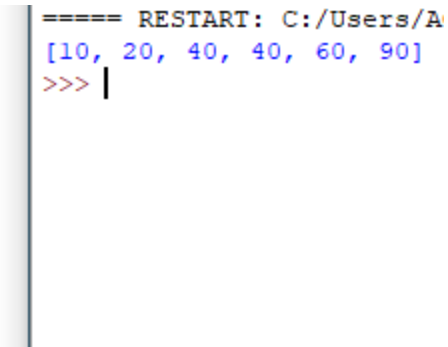
a = [40,10,40,20,90,60]
j = cariPosisiYangTerkecil(a,2,len(a))
print(j)
```



File Edit Shell Debu  
Python 3.8.0 (tag  
tel)] on win32  
Type "help", "cof  
>>>  
==== RESTART: C:  
[50, 10, 70, 20]  
3  
>>> |

### 2. Nomor 2

```
#Latihan 5.1
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)
a = [40,10,40,20,90,60]
bubbleSort(a)
print(a)
```



==== RESTART: C:/Users/A  
[10, 20, 40, 40, 60, 90]  
>>> |

### 3. Nomor 3

```
#Latihan 5.2
def selectionSort(a):
    n = len(a)
    for i in range(n-1):
        indexKecil=cariPosisiYangTerkecil(a,i,n)
        if indexKecil != i:
            swap(a,i,indexKecil)

b = [30,10,60,20,70,50]
selectionSort(b)
print(b)
```

#### 4. Nomor 4

```
#Latihan 5.3
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

c = [20,10,90,30,70,50]
insertionSort(c)
print(c)
```

```
Python 3.8.0 (tags/v3.8.0
tel)] on win32
Type "help", "copyright",
>>>
===== RESTART: C:/Users/A
[10, 20, 30, 50, 60, 70]
>>>
```

File	Edit	Shell	Debug	Options
Python 3.8.0 (tags/v3.8.0 tel)] on win32 Type "help", "copyright", >>> ===== RESTART: C:/Users/A/ [10, 20, 30, 50, 70, 90] >>>				