

LAPORAN LATIHAN

PRAKTIKUM ALGORITMA & STRUKTUR DATA

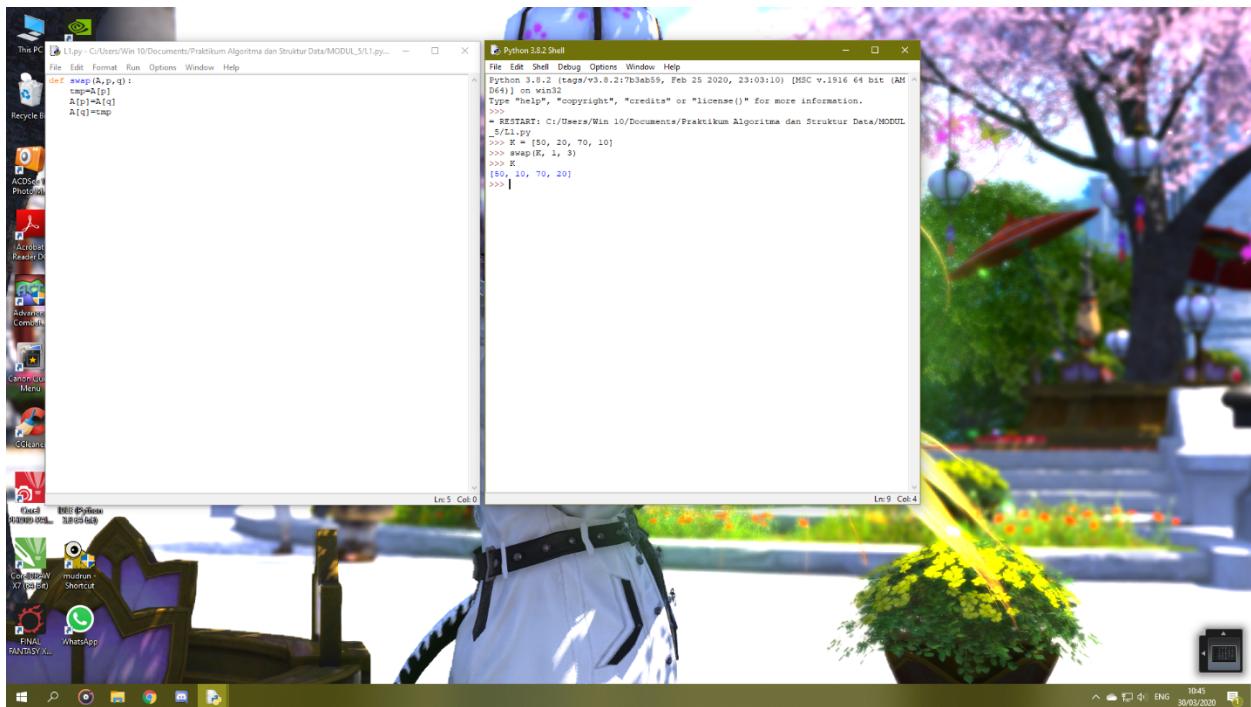
MODUL 5

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Kelas : A

Latihan 1



Latihan 2

```
File Edit Format Run Options Window Help
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
> RESTART: C:/Users/Win 10/Documents/Praktikum Algoritma dan Struktur Data/MODUL_5/L2.py
>>> A = [18, 13, 44, 25, 66, 107, 78, 89]
>>> i = cariPosisiYangTerkecil(A, 0, len(A))
>>> i
3
Ln 6 Col 18
Ln 9 Col 4
```

```
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
> RESTART: C:/Users/Win 10/Documents/Praktikum Algoritma dan Struktur Data/MODUL_5/L2.py
>>> A = [18, 13, 44, 25, 66, 107, 78, 89]
>>> i = cariPosisiYangTerkecil(A, 2, len(A))
>>> i
3
3
Ln 6 Col 18
Ln 9 Col 4
```

Latihan 3

```
File Edit Format Run Options Window Help
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
> RESTART: C:/Users/Win 10/Documents/Praktikum Algoritma dan Struktur Data/MODUL_5/L3.py
>>> A = [76, 45, 10, 5, 29, 45]
>>> i = bubblesort(A)
>>> i
>>> A
[75, 20, 10, 4, 38, 6]
>>> bubblesort(A)
>>> A
[4, 6, 10, 20, 38, 75]
>>> |
```

```
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 23:03:10) [MSC v.1916 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
> RESTART: C:/Users/Win 10/Documents/Praktikum Algoritma dan Struktur Data/MODUL_5/L3.py
>>> A = [76, 45, 10, 5, 29, 45]
>>> i = bubblesort(A)
>>> i
>>> A
[75, 20, 10, 4, 38, 6]
>>> bubblesort(A)
>>> A
[4, 6, 10, 20, 38, 75]
>>> |
```

Latihan 4

```

L4.py - C:\Users\Win 10\Documents\Praktikum Algoritma dan Struktur Data\MODUL_5\4.py...
File Edit Shell Options Window Help
def swap(A,p,q):
    tmp=A[p]
    A[p]=A[q]
    A[q]=tmp

def cariPosisiTerkecil(A, dariSini, sampaiSini):
    posisiTerkecil=dariSini
    for i in range(dariSini, 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):
        indeksKecil=i
        for j in range(i+1,n):
            if A[j] < A[indeksKecil]:
                indeksKecil = j
        swap(A,i,indeksKecil)

>>> A = [75, 20, 10, 4, 38, 6]
>>> bubbleSort(A)
>>> A
[4, 6, 10, 20, 38, 75]
>>>
>>> RESTART: C:/Users/Win 10/Documents/Praktikum Algoritma dan Struktur Data/MODUL_5/L4.py
>>> A = [67, 40, 7, 23, 98]
>>> selectionSort(A)
>>> A
[7, 23, 40, 67, 98]
>>>

```

Latihan 5

```

L5.py - C:\Users\Win 10\Documents\Praktikum Algoritma dan Struktur Data\MODUL_5\5.py...
File Edit Shell Options Window Help
def swap(A,p,q):
    tmp=A[p]
    A[p]=A[q]
    A[q]=tmp

def cariPosisiTerkecil(A, dariSini, sampaiSini):
    posisiTerkecil=dariSini
    for i in range(dariSini, 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):
        indeksKecil=i
        for j in range(i+1,n):
            if A[j] < A[indeksKecil]:
                indeksKecil = j
        swap(A,i,indeksKecil)

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

>>> pos
22
>>> swap(A,1,2)
>>> A
[67, 40, 7, 23, 98]
>>> insertionSort(A)
>>> A
[7, 23, 40, 67, 98]
>>>
>>> RESTART: C:/Users/Win 10/Documents/Praktikum Algoritma dan Struktur Data/MODUL_5/L5.py
>>> A = [67, 40, 7, 23, 98]
>>> insertionSort(A)
>>> A
[7, 23, 40, 67, 98]
>>>

```