

LAPORAN PRAKTIKUM

ALGORITMA DAN STRUKTUR DATA

MODUL 5. PENGURUTAN

Pengurutan

```
Latihan 1.py - C:/Users/Hadid Aldio I/Desktop/Latihan 1.py (3.8.1)
File Edit Format Run Options Window Help
def swap(A,p,q):
    tmp=A[p]
    A[p]=A[q]
    A[q]=tmp

Python 3.8.1 Shell
File Edit Shell Debug Options Window Help
Python 3.8.1 (tags/v3.8.1:1b293b6, Dec 18 2019, 22:39:24) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Hadid Aldio I/Desktop/Latihan 1.py =====
>>> K=[50,20,70,10]
>>> swap(K,1,3)
>>> K
[50, 10, 70, 20]
>>> |
```

```
Latihan 2.py - C:/Users/Hadid Aldio I/Desktop/Latihan 2.py (3.8.1)
File Edit Format Run Options Window Help
def cariPosisiYangTerkecil(A, dariSini, sampaiSini):
    posisiYangTerkecil=dariSini
    for i in range(dariSini+1, sampaiSini):
        if A[i]<A[posisiYangTerkecil]:
            posisiYangTerkecil=i
    return posisiYangTerkecil

Python 3.8.1 Shell
File Edit Shell Debug Options Window Help
Python 3.8.1 (tags/v3.8.1:1b293b6, Dec 18 2019, 22:39:24) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Hadid Aldio I/Desktop/Latihan 2.py =====
>>> A=[18,13,44,25,66,107,78,89]
>>> j=cariPosisiYangTerkecil(A,2,len(A))
>>> j
2
>>> |
```

5.1 Bubble Sort

```
Latihan 3.py - C:/Users/Hadid Aldio I/Desktop/Latihan 3.py (3.8.1)
File Edit Format Run Options Window Help
def swap(A,p,q):
    tmp=A[p]
    A[p]=A[q]
    A[q]=tmp

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)

Python 3.8.1 Shell
File Edit Shell Debug Options Window Help
Python 3.8.1 (tags/v3.8.1:1b293b6, Dec 18 2019, 22:39:24) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Hadid Aldio I/Desktop/Latihan 3.py =====
>>> L=[10,51,2,18,4,31,13,5,23,64,29]
>>> bubbleSort(L)
>>> L
[2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]
>>> |
```

5.2 Selection Sort

```
Latihan 4.py - A:\P_ASD\Modul 5\Kode\Latihan 4.py (3.8.1)
File Edit Format Run Options Window Help
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

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

Python 3.8.1 Shell
File Edit Shell Debug Options Window Help
Python 3.8.1 (tags/v3.8.1:1b293b6, Dec 18 2019, 22:39:24) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: A:\P_ASD\Modul 5\Kode\Latihan 4.py =====
>>> A=[10,51,2,18,4,31,13,5,23,64,29]
>>> selectionSort(A)
>>> A
[2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]
>>> |
```

5.3 Insertion Sort

```
Latihan 5.py - C:/Users/Hadid Aldio I/Desktop/Latihan 5.py (3.8.1)
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

Python 3.8.1 Shell
File Edit Shell Debug Options Window Help
Python 3.8.1 (tags/v3.8.1:1b293b6, Dec 18 2019, 22:39:24) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Hadid Aldio I/Desktop/Latihan 5.py =====
>>> A=[10,51,2,18,4,31,13,5,23,64,29]
>>> insertionSort(A)
>>> A
[2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]
>>> |
```