

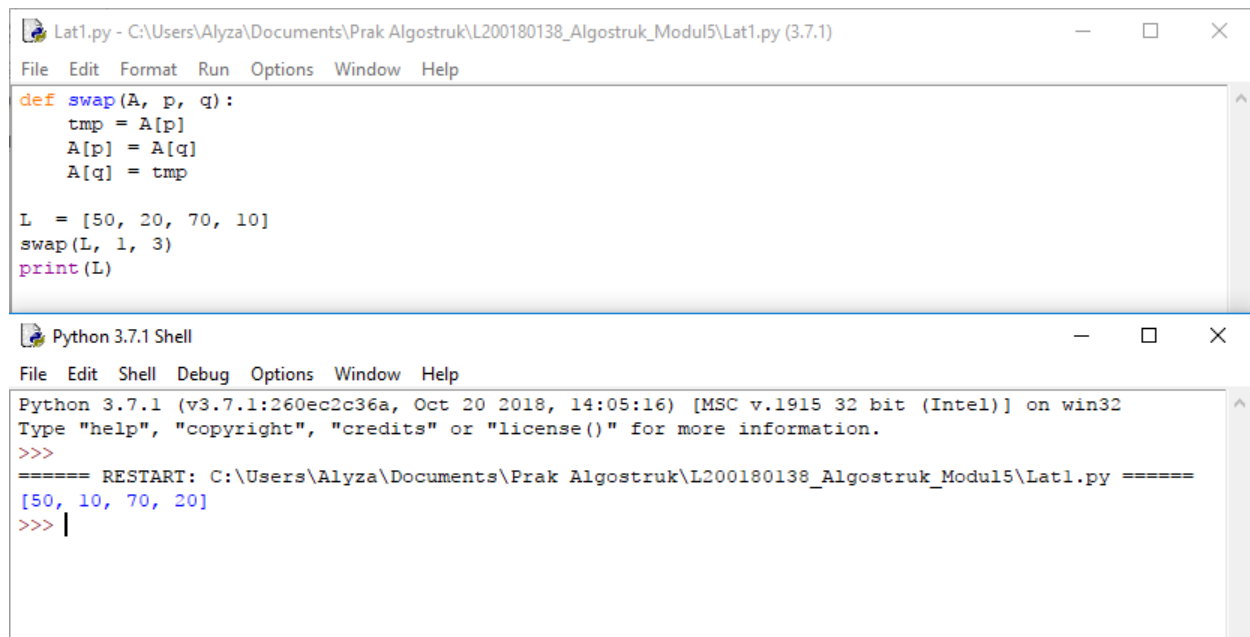
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Kelas : E

Modul 5

Latihan 1



The image shows a screenshot of a Python IDE with two windows. The top window, titled 'Lat1.py - C:\Users\Alyza\Documents\Prak Algostruk\L200180138_Algostruk_Modul5\Lat1.py (3.7.1)', contains the following Python code:

```
def swap(A, p, q):  
    tmp = A[p]  
    A[p] = A[q]  
    A[q] = tmp  
  
L = [50, 20, 70, 10]  
swap(L, 1, 3)  
print(L)
```

The bottom window, titled 'Python 3.7.1 Shell', shows the output of running the script. It displays the following text:

```
Python 3.7.1 (v3.7.1:260ec2c36a, Oct 20 2018, 14:05:16) [MSC v.1915 32 bit (Intel)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
===== RESTART: C:\Users\Alyza\Documents\Prak Algostruk\L200180138_Algostruk_Modul5\Lat1.py =====  
[50, 10, 70, 20]  
>>> |
```

Latihan 2

```
Lat2.py - C:\Users\Alyza\Documents\Prak Algostruk\L200180121_Algostruk_Modul5\Lat2.py (3.7.1)
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

A = [18, 13, 44, 25, 66, 107, 78, 89]
j = cariPosisiYangTerkecil(A, 2, len(A))
print(j)

Python 3.7.1 Shell
File Edit Shell Debug Options Window Help

Python 3.7.1 (v3.7.1:260ec2c36a, Oct 20 2018, 14:05:16) [MSC v.1915 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\Alyza\Documents\Prak Algostruk\L200180121_Algostruk_Modul5\Lat2.py =====
3
>>> |
```

Latihan 3

```
Lat3.py - C:\Users\Alyza\Documents\Prak Algostruk\L200180121_Algostruk_Modul5\Lat3.py (3.7.1)
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)

L = [10, 51, 2, 18, 4, 31, 13, 5, 23, 64, 29]
bubbleSort(L)
print(L)

Python 3.7.1 Shell
File Edit Shell Debug Options Window Help

Python 3.7.1 (v3.7.1:260ec2c36a, Oct 20 2018, 14:05:16) [MSC v.1915 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\Alyza\Documents\Prak Algostruk\L200180121_Algostruk_Modul5\Lat3.py =====
[2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]
>>> |
```

Latihan 4

```
Lat4.py - C:\Users\Alyza\Documents\Prak Algostruk\L200180121_Algostruk_Modul5\Lat4.py (3.7.1)
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 insertionSort(A):
    n = len(A)
    for i in range(n-1):
        indexKecil = cariPosisiYangTerkecil(A, i, n)
        if indexKecil != i:
            swap(A, i, indexKecil)

L = [10, 51, 2, 18, 4, 31, 13, 5, 23, 64, 29]
insertionSort(L)
print(L)

Python 3.7.1 Shell
File Edit Shell Debug Options Window Help
Python 3.7.1 (v3.7.1:260ec2c36a, Oct 20 2018, 14:05:16) [MSC v.1915 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\Alyza\Documents\Prak Algostruk\L200180121_Algostruk_Modul5\Lat4.py =====
[2, 4, 5, 10, 13, 18, 23, 29, 31, 51, 64]
>>> |
```

Latihan 5

```
Lat5.py - C:\Users\Alyza\Documents\Prak Algostruk\L200180121_Algostruk_Modul5\Lat5.py (3.7.1)
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

L = [10, 51, 2, 18, 4, 31, 13, 5, 23, 64, 29]
insertionSort(L)
print(L)

Python 3.7.1 Shell
File Edit Shell Debug Options Window Help
Python 3.7.1 (v3.7.1:260ec2c36a, Oct 20 2018, 14:05:16) [MSC v.1915 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\Alyza\Documents\Prak Algostruk\L200180121_Algostruk_Modul5\Lat5.py =====
[2, 10, 51, 18, 4, 31, 13, 5, 23, 64, 29]
>>> |
```