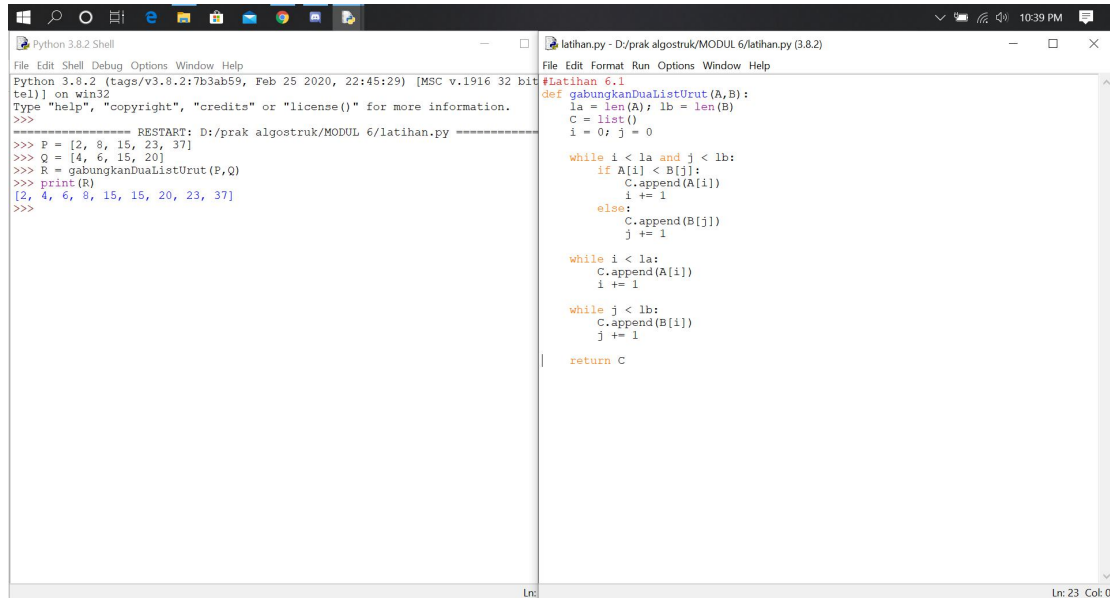


Nama : Auzan Danar Kusuma  
NIM : L200180005  
Kelas : A

## Modul 6

### Latihan

#### Latihan 6.1



The screenshot shows two windows. The left window is a Python 3.8.2 Shell with the following code and output:

```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/prak algostruk/MODUL 6/latihan.py =====
>>> P = [2, 8, 15, 23, 37]
>>> Q = [4, 6, 15, 20]
>>> R = gabungkanDualListUrut(P,Q)
>>> print(R)
[2, 4, 6, 8, 15, 15, 20, 23, 37]
>>>
```

The right window is a Python script editor showing the implementation of the `gabungkanDualListUrut` function:

```
latihan.py - D:/prak algostruk/MODUL 6/latihan.py (3.8.2)
File Edit Format Run Options Window Help

#Latihan 6.1
def gabungkanDualListUrut(A,B):
    la = len(A); lb = len(B)
    C = list()
    i = 0; j = 0

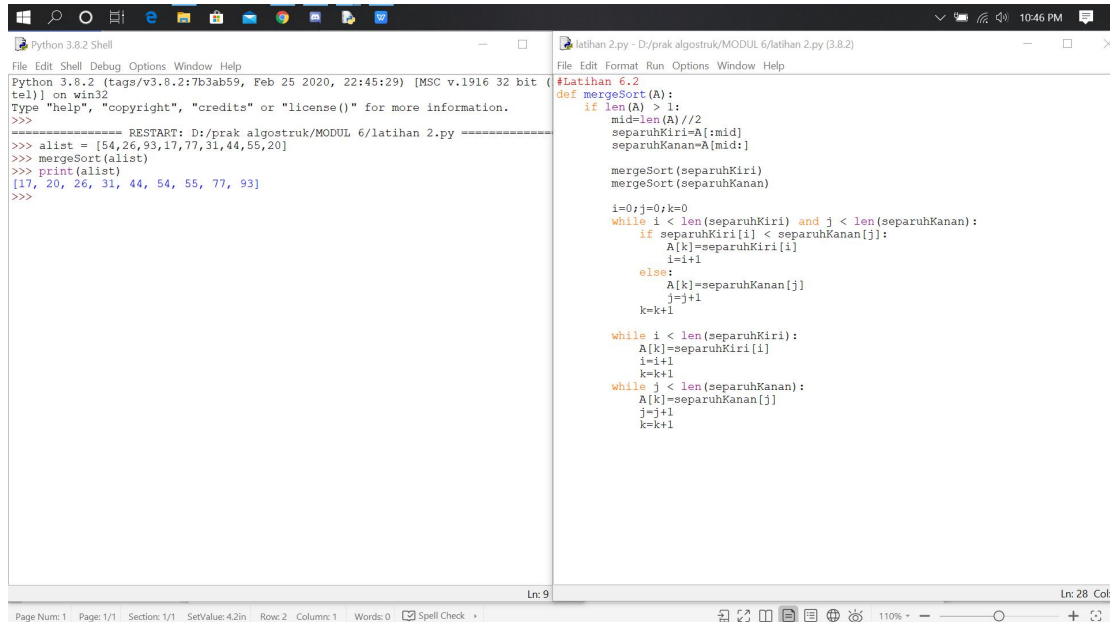
    while i < la and j < lb:
        if A[i] < B[j]:
            C.append(A[i])
            i += 1
        else:
            C.append(B[j])
            j += 1

    while i < la:
        C.append(A[i])
        i += 1

    while j < lb:
        C.append(B[j])
        j += 1

    return C
```

#### Latihan 6.2



The screenshot shows two windows. The left window is a Python 3.8.2 Shell with the following code and output:

```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/prak algostruk/MODUL 6/latihan 2.py =====
>>> alist = [54,26,93,17,77,31,44,55,20]
>>> mergeSort(alist)
>>> print(alist)
[17, 20, 26, 31, 44, 54, 55, 77, 93]
>>>
```

The right window is a Python script editor showing the implementation of the `mergeSort` function:

```
latihan 2.py - D:/prak algostruk/MODUL 6/latihan 2.py (3.8.2)
File Edit Format Run Options Window Help

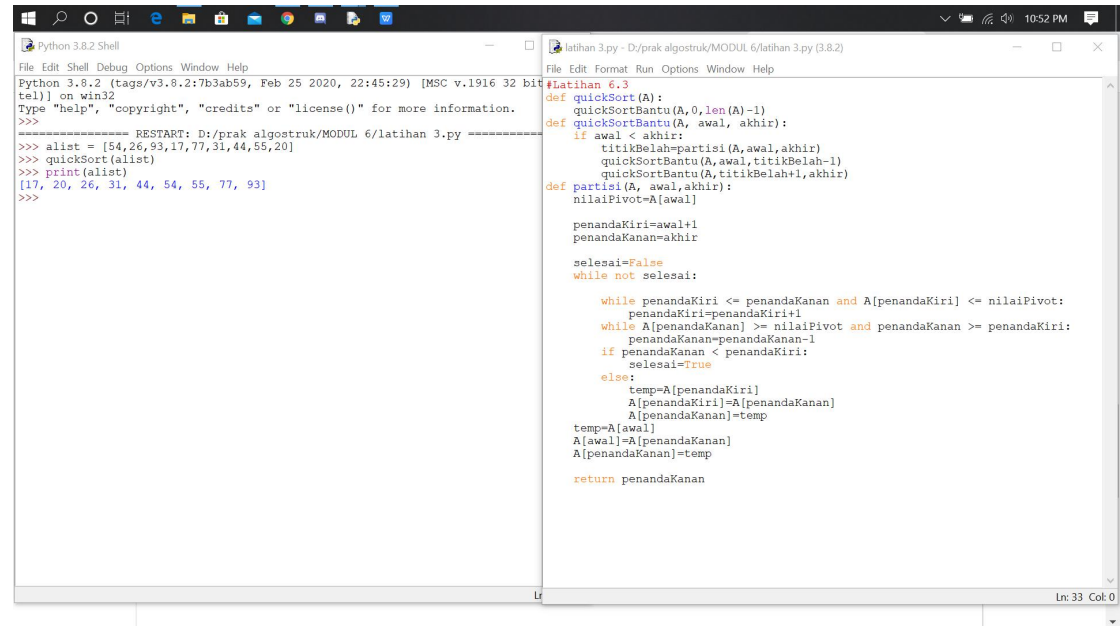
#Latihan 6.2
def mergeSort(A):
    if len(A) > 1:
        mid=len(A)//2
        separuhKiri=A[:mid]
        separuhKanan=A[mid:]

        mergeSort(separuhKiri)
        mergeSort(separuhKanan)

        i=0;j=0;k=0
        while i < len(separuhKiri) and j < len(separuhKanan):
            if separuhKiri[i] < separuhKanan[j]:
                A[k]=separuhKiri[i]
                i=i+1
            else:
                A[k]=separuhKanan[j]
                j=j+1
            k=k+1

        while i < len(separuhKiri):
            A[k]=separuhKiri[i]
            i=i+1
            k=k+1
        while j < len(separuhKanan):
            A[k]=separuhKanan[j]
            j=j+1
            k=k+1
```

## Latihan 6.3



The image shows a screenshot of a computer screen with two windows open. The left window is a Python 3.8.2 Shell, and the right window is a Python script editor for a file named 'latihan 3.py'.

**Python 3.8.2 Shell:**

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit  
tel)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
===== RESTART: D:/prak algostruk/MODUL 6/latihan 3.py =====>>>  
>>> alist = [54,26,93,17,77,31,44,55,20]  
>>> quickSort(alist)  
>>> print(alist)  
[17, 20, 26, 31, 44, 54, 55, 77, 93]  
>>>
```

**latihan 3.py - D:/prak algostruk/MODUL 6/latihan 3.py (3.8.2):**

```
File Edit Format Run Options Window Help  
#Latihan 6.3  
def quickSort(A):  
    quickSortBantu(A,0,len(A)-1)  
def quickSortBantu(A, awal, akhir):  
    if awal < akhir:  
        titikBelah=partisi(A,awal,akhir)  
        quickSortBantu(A, awal, titikBelah-1)  
        quickSortBantu(A, titikBelah+1,akhir)  
def partisi(A, awal,akhir):  
    nilaiPivot=A[awal]  
  
    penandaKiri=awal+1  
    penandaKanan=akhir  
  
    selesai=False  
    while not selesai:  
  
        while penandaKiri <= penandaKanan and A[penandaKiri] <= nilaiPivot:  
            penandaKiri=penandaKiri+1  
        while A[penandaKanan] >= nilaiPivot and penandaKanan >= penandaKiri:  
            penandaKanan=penandaKanan-1  
        if penandaKanan < penandaKiri:  
            selesai=True  
        else:  
            temp=A[penandaKiri]  
            A[penandaKiri]=A[penandaKanan]  
            A[penandaKanan]=temp  
    temp=A[awal]  
    A[awal]=A[penandaKanan]  
    A[penandaKanan]=temp  
  
    return penandaKanan
```

Ln: 33 Cok: 0