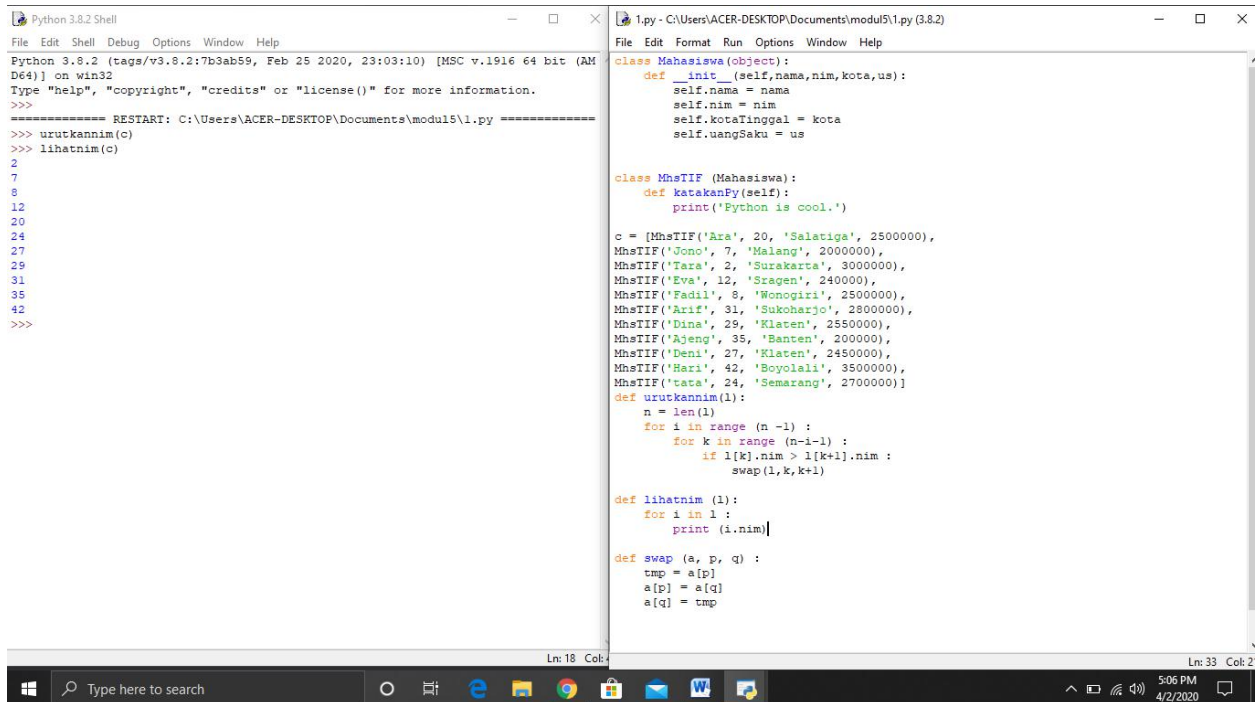


Nama : Fannisa RM
NIM : L200180048
Kelas : B

1.



```
Python 3.8.2 Shell
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\ACER-DESKTOP\Documents\modul5\1.py =====
>>> urutkannim(c)
>>> lihatnim(c)
2
7
8
12
20
24
27
29
31
35
42
>>>

1.py - C:\Users\ACER-DESKTOP\Documents\modul5\1.py (3.8.2)
File Edit Format Run Options Window Help
class Mahasiswa(object):
    def __init__(self,nama,nim,kota,us):
        self.nama = nama
        self.nim = nim
        self.kotaTinggal = kota
        self.uangSaku = us

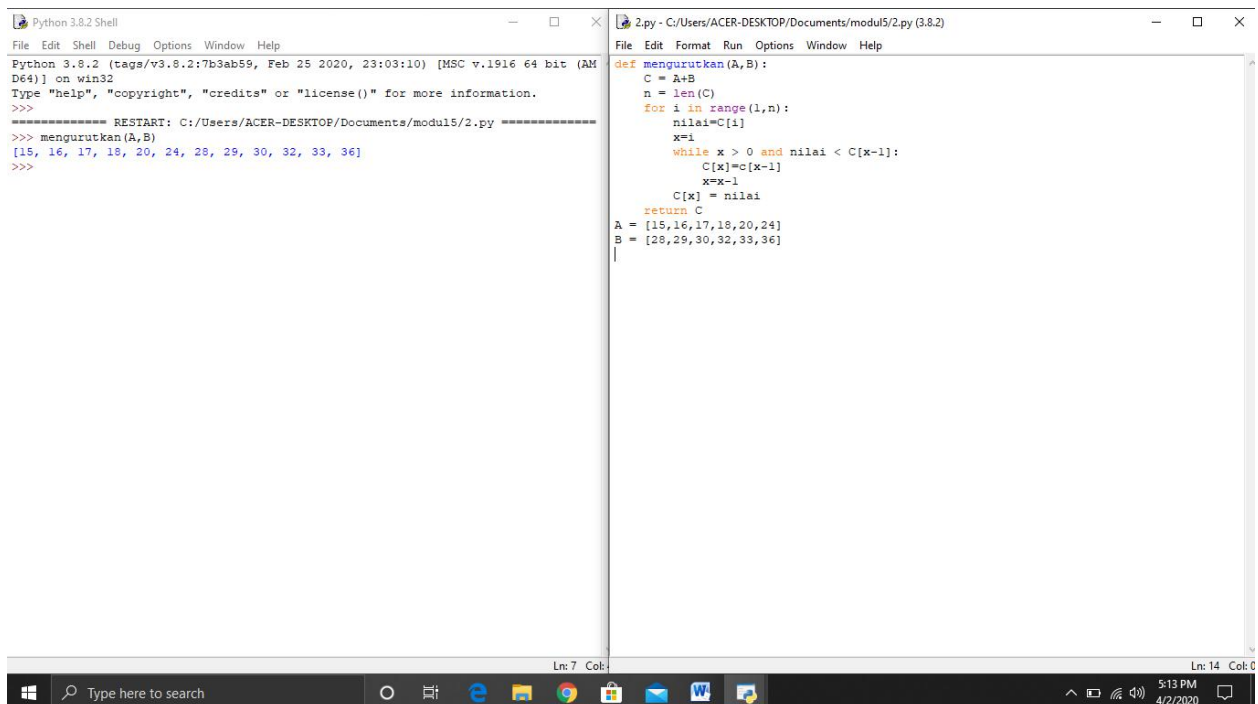
class MhsTIF(Mahasiswa):
    def katakanPy(self):
        print('Python is cool.')

c = [MhsTIF('Ara', 20, 'Salatiga', 2500000),
     MhsTIF('Jono', 7, 'Malang', 2000000),
     MhsTIF('Tara', 2, 'Surakarta', 3000000),
     MhsTIF('Eva', 12, 'Sragen', 2400000),
     MhsTIF('Fadil', 8, 'Wonogiri', 2500000),
     MhsTIF('Arif', 31, 'Sukoharjo', 2800000),
     MhsTIF('Dina', 29, 'Klaten', 2550000),
     MhsTIF('Ajeng', 35, 'Banten', 2000000),
     MhsTIF('Deni', 27, 'Klaten', 2450000),
     MhsTIF('Hari', 42, 'Boyolali', 3500000),
     MhsTIF('Caca', 24, 'Semarang', 2700000)]
def urutkannim(l):
    n = len(l)
    for i in range(n-1):
        for k in range(n-i-1):
            if l[k].nim > l[k+1].nim:
                swap(l,k,k+1)

def lihatnim(l):
    for i in l:
        print(i.nim)

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

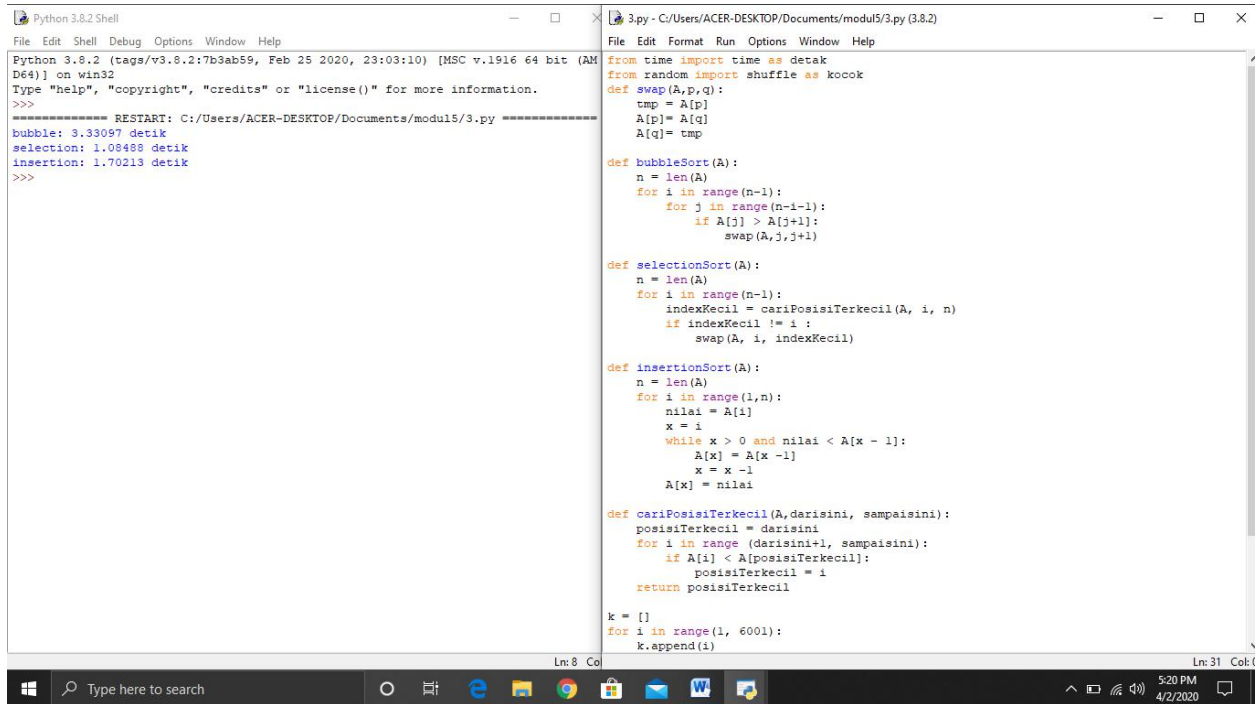
2.



```
Python 3.8.2 Shell
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\ACER-DESKTOP\Documents\modul5\2.py =====
>>> mengurutkan(A,B)
[15, 16, 17, 18, 20, 24, 28, 29, 30, 32, 33, 36]
>>>

2.py - C:\Users\ACER-DESKTOP\Documents\modul5\2.py (3.8.2)
File Edit Format Run Options Window Help
def mengurutkan(A,B):
    C = A+B
    n = len(C)
    for i in range(1,n):
        nilai=C[i]
        x=i
        while x > 0 and nilai < C[x-1]:
            C[x]=C[x-1]
            x=x-1
        C[x] = nilai
    return C
A = [15,16,17,18,20,24]
B = [28,29,30,32,33,36]
```

3.



The image shows a Windows desktop with two open windows. The left window is a Python 3.8.2 Shell, and the right window is a Python script editor.

Python 3.8.2 Shell (Left Window):

```
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/ACER-DESKTOP/Documents/modul5/3.py =====
bubble: 3.33097 detik
selection: 1.08488 detik
insertion: 1.70213 detik
>>>
```

Python Script Editor (Right Window):

```
3.py - C:/Users/ACER-DESKTOP/Documents/modul5/3.py (3.8.2)
File Edit Format Run Options Window Help

from time import time as detik
from random import shuffle as kocok

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)

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

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

def cariPosisiTerkecil(A,darisini, sampaisini):
    posisiTerkecil = darisini
    for i in range (darisini+1, sampaisini):
        if A[i] < A[posisiTerkecil]:
            posisiTerkecil = i
    return posisiTerkecil

k = []
for i in range(1, 6001):
    k.append(i)
```

The taskbar at the bottom shows the Windows Start button, a search bar, and several application icons. The system clock indicates 5:20 PM on 4/2/2020.