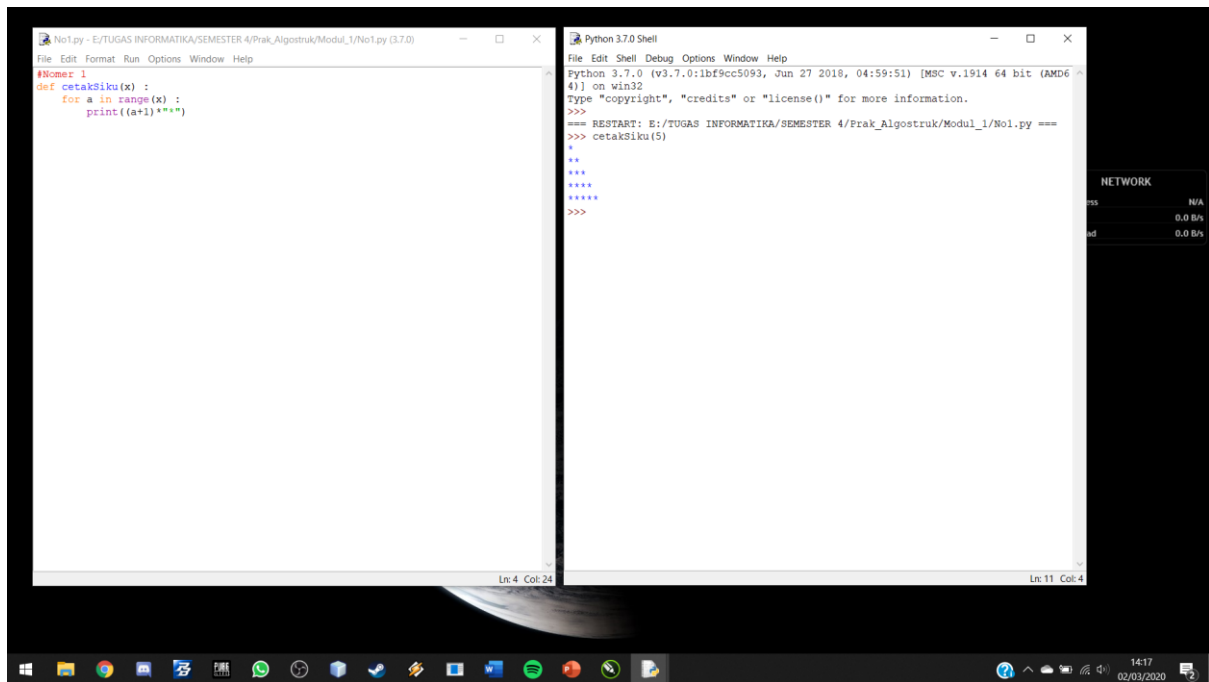


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NIM : L200180100
Kelas : D

Modul 1

1.



The screenshot shows a Python IDE with two windows. The left window, titled 'No1.py', contains the following code:

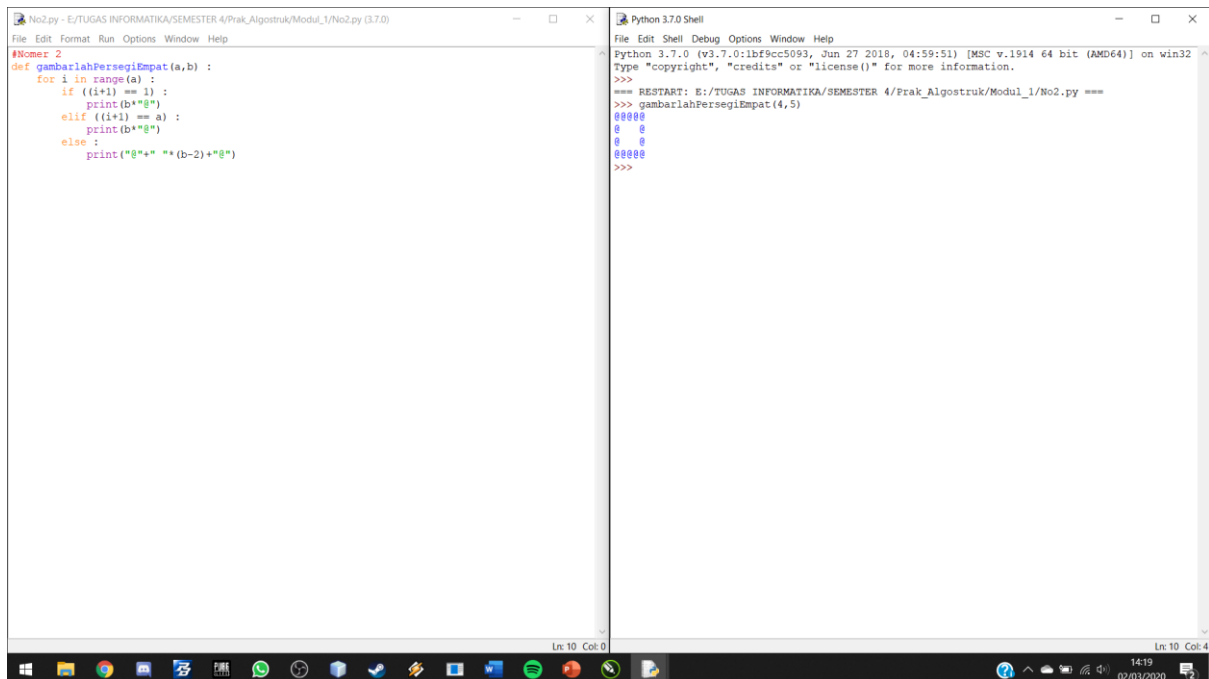
```
#Nomer 1
def cetakSiku(x):
    for a in range(x):
        print((a+1)*" ")
```

The right window, titled 'Python 3.7.0 Shell', shows the execution of the program. It displays the prompt 'RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No1.py' followed by the command 'cetakSiku(5)'. The output is a 5x5 grid of asterisks:

```
*****
*****
*****
*****
*****
```

The taskbar at the bottom shows the Windows Start button, taskbar icons for various applications, and the system clock displaying 14:17 on 02/03/2020.

2.



The screenshot shows a Python IDE with two windows. The left window, titled 'No2.py', contains the following code:

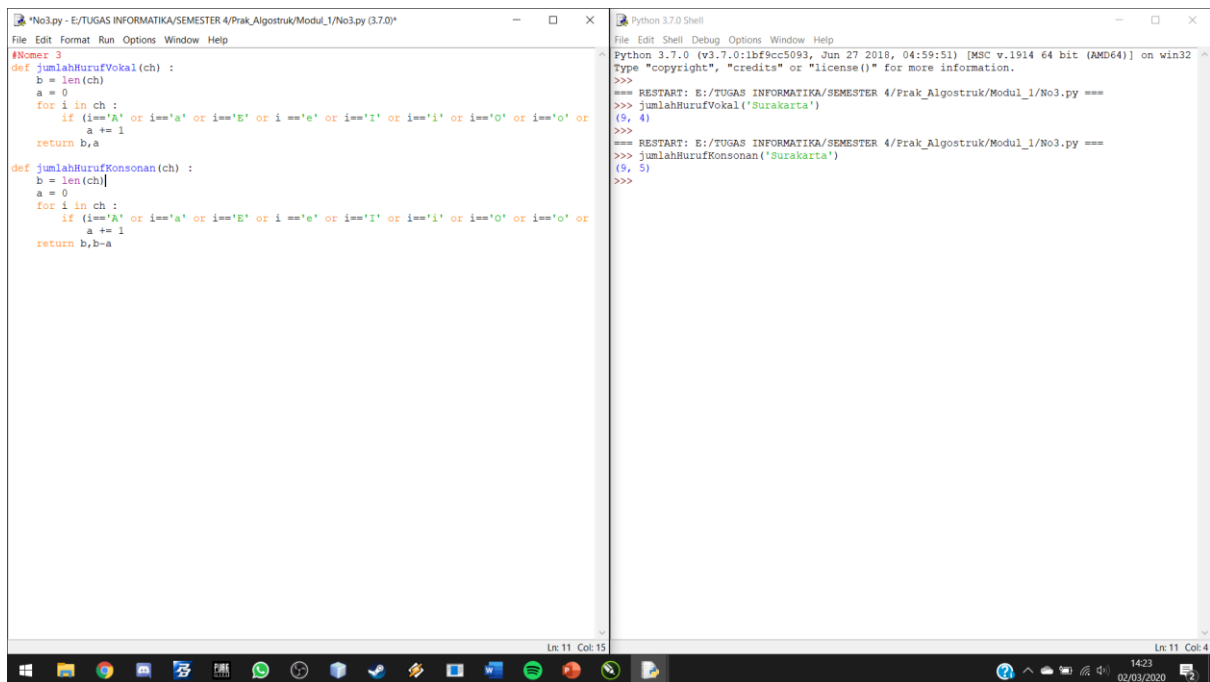
```
#Nomer 2
def gambarlahPersegiEmpat(a,b):
    for i in range(a):
        if ((i+1) == 1):
            print(b*" ")
        elif ((i+1) == a):
            print(b*" ")
        else:
            print("@*" + " "*(b-2) + "@")
```

The right window, titled 'Python 3.7.0 Shell', shows the execution of the program. It displays the prompt 'RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No2.py' followed by the command 'gambarlahPersegiEmpat(4,5)'. The output is a 4x5 grid of asterisks:

```
*****
*****
*****
*****
```

The taskbar at the bottom shows the Windows Start button, taskbar icons for various applications, and the system clock displaying 14:19 on 02/03/2020.

3.



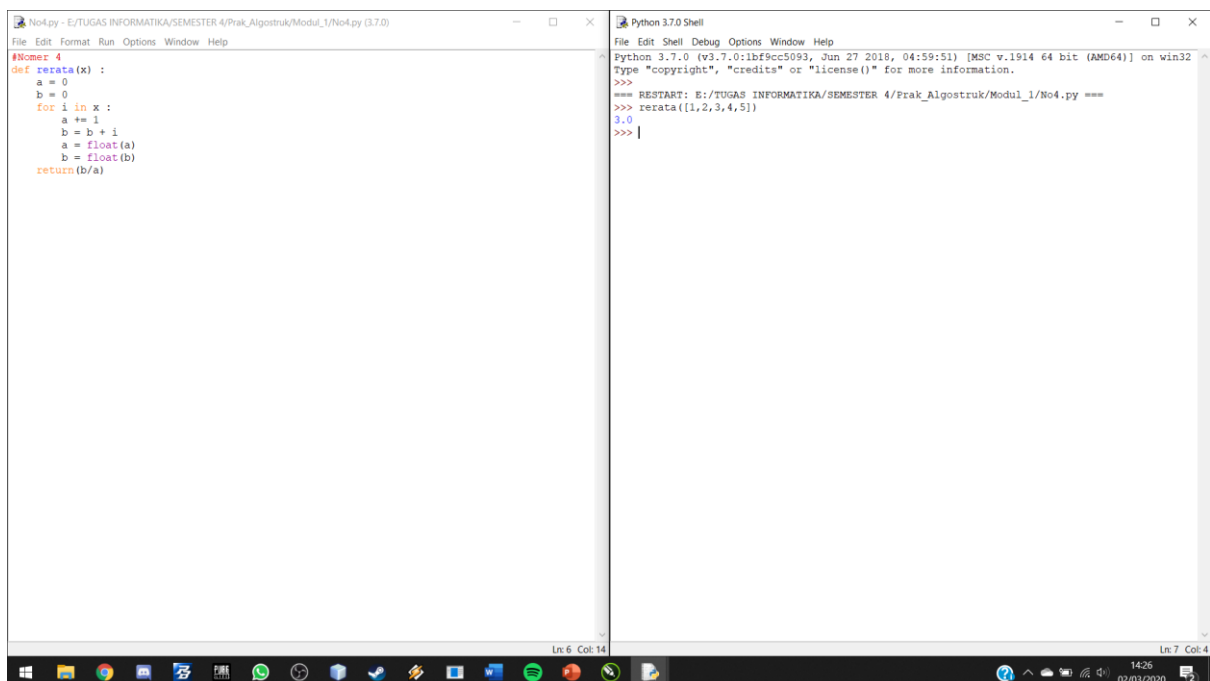
```
File Edit Format Run Options Window Help
#Nomer 3
def jumlahHurufVokal(ch) :
    b = len(ch)
    a = 0
    for i in ch :
        if (i=='A' or i=='a' or i=='E' or i=='e' or i=='I' or i=='i' or i=='O' or i=='o' or i=='U' or i=='u') :
            a += 1
    return b,a

def jumlahHurufKonsonan(ch) :
    b = len(ch)
    a = 0
    for i in ch :
        if (i=='A' or i=='a' or i=='E' or i=='e' or i=='I' or i=='i' or i=='O' or i=='o' or i=='U' or i=='u') :
            a += 1
    return b,b-a

Ln: 11 Col: 15

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No3.py ===
>>> jumlahHurufVokal('Surakarta')
(9, 4)
>>>
=== RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No3.py ===
>>> jumlahHurufKonsonan('Surakarta')
(9, 5)
>>>
```

4.

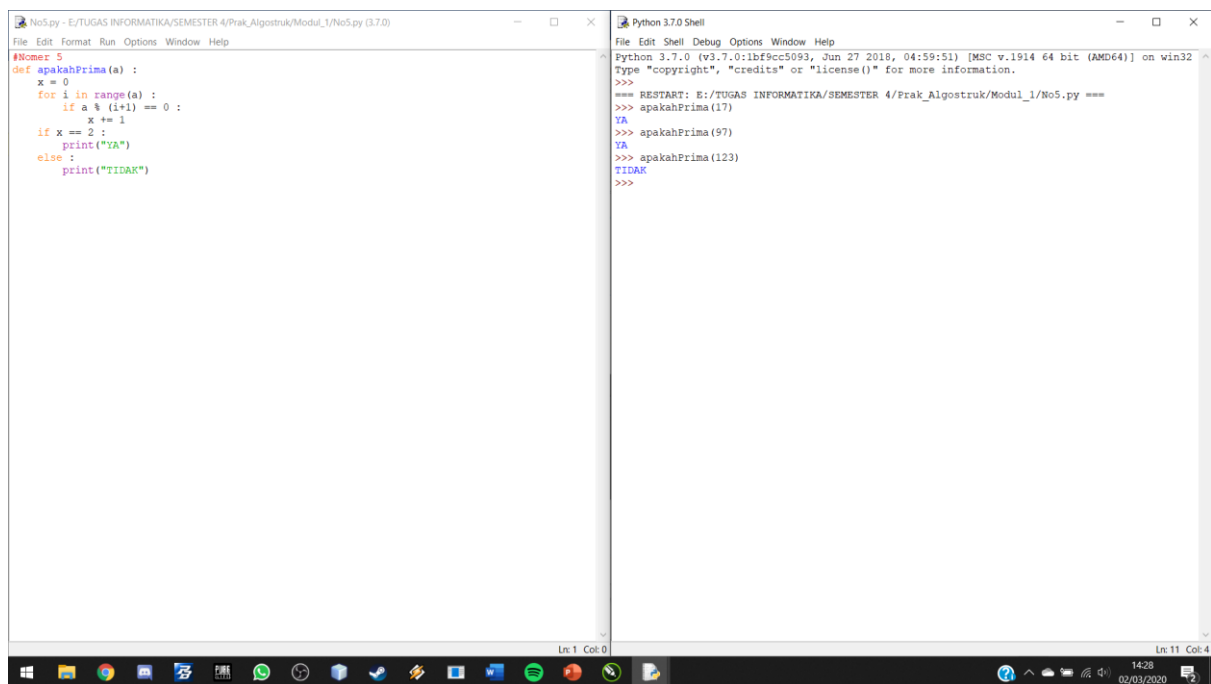


```
File Edit Format Run Options Window Help
#Nomer 4
def rerata(x) :
    a = 0
    b = 0
    for i in x :
        a += 1
        b = b + i
    a = float(a)
    b = float(b)
    return (b/a)

Ln: 6 Col: 14

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No4.py ===
>>> rerata([1,2,3,4,5])
3.0
>>>
```

5.



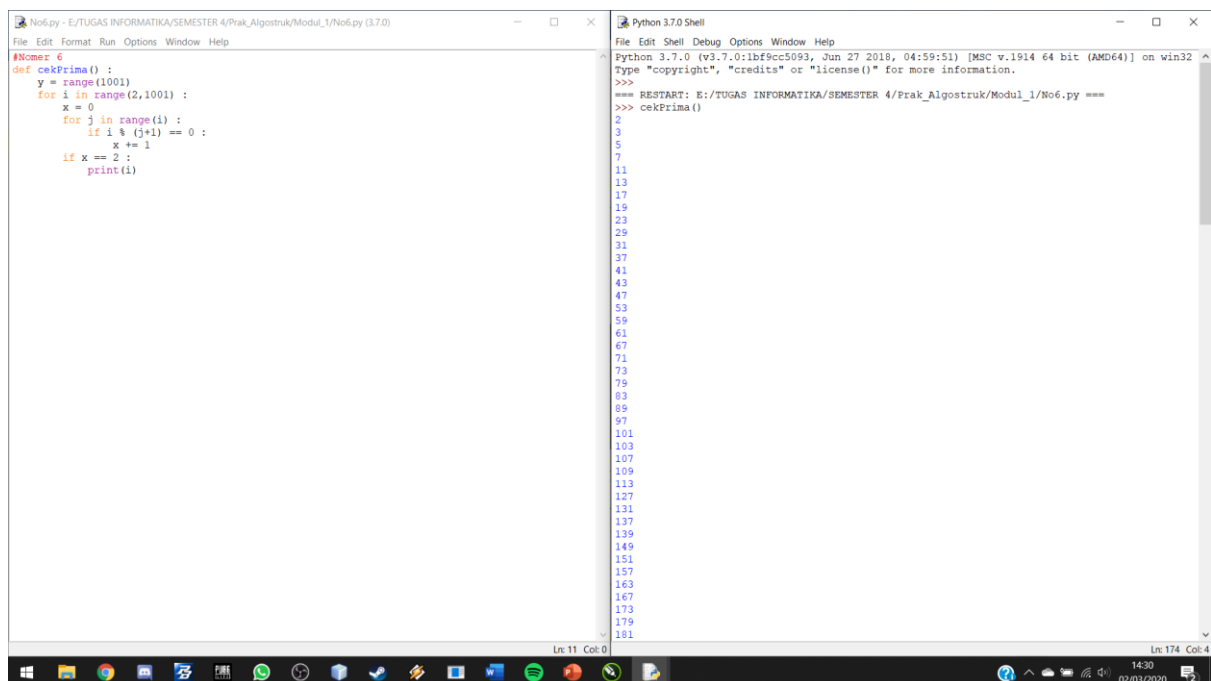
The screenshot shows a Python IDE with two windows. The left window, titled 'No5.py - E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No5.py (3.7.0)', contains the following code:

```
#Nomer 5
def apakahPrima(a) :
    x = 0
    for i in range(a) :
        if a % (i+1) == 0 :
            x += 1
    if x == 2 :
        print("YA")
    else :
        print("TIDAK")
```

The right window, titled 'Python 3.7.0 Shell', shows the execution of the function:

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> == RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No5.py ==
>>> apakahPrima(17)
YA
>>> apakahPrima(97)
YA
>>> apakahPrima(123)
TIDAK
>>>
```

6.



The screenshot shows a Python IDE with two windows. The left window, titled 'No6.py - E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No6.py (3.7.0)', contains the following code:

```
#Nomer 6
def cekPrima() :
    y = range(1001)
    for i in range(2,1001) :
        x = 0
        for j in range(i) :
            if i % (j+1) == 0 :
                x += 1
        if x == 2 :
            print(i)
```

The right window, titled 'Python 3.7.0 Shell', shows the execution of the function:

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> == RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No6.py ==
>>> cekPrima()
2
3
5
7
11
13
17
19
23
29
31
37
41
43
47
53
59
61
67
71
73
79
83
89
97
101
103
107
109
113
127
131
137
139
149
151
157
163
167
173
179
181
>>>
```

The screenshot shows a Python IDE with two windows. The left window, titled 'No6.py - E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No6.py (3.7.0)', contains the following code:

```
#Nomer 6
def cekPrima():
    y = range(1001)
    for i in range(2, 1001):
        x = 0
        for j in range(i):
            if i % (j+1) == 0:
                x += 1
        if x == 2:
            print(i)
```

The right window, titled 'Python 3.7.0 Shell', displays the output of the program, which is a list of prime numbers from 2 to 1000, one per line. The status bar at the bottom indicates 'Ln 11 Col 0' for the editor and 'Ln 174 Col 4' for the shell.

7.

The screenshot shows a Python IDE with two windows. The left window, titled 'No7.py - E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No7.py (3.7.0)', contains the following code:

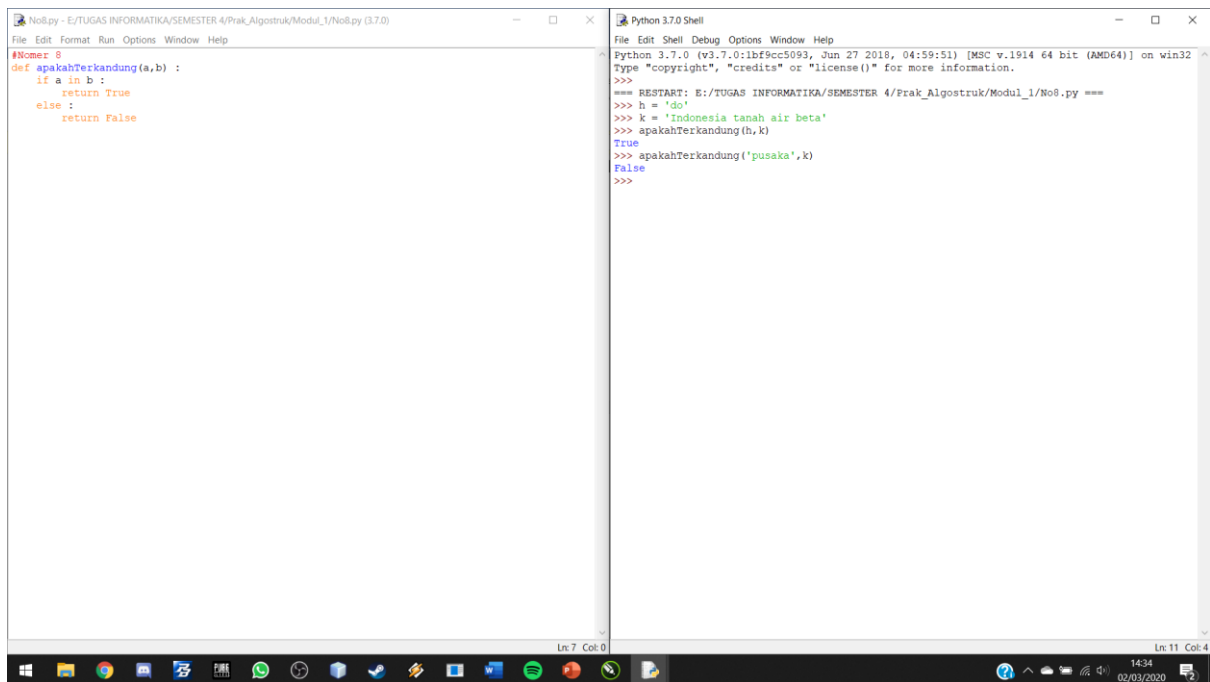
```
#Nomer 7
def faktorPrima(x):
    listprima=[]
    prima=2
    while prima<=x:
        if x%prima==0:
            x/=prima
            listprima.append(prima)
        else:
            prima+=1
    return listprima
```

The right window, titled 'Python 3.7.0 Shell', displays the output of the program. It shows the function definition and three test calls with their results:

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No7.py ===
>>> faktorPrima(10)
[2, 5]
>>> faktorPrima(120)
[2, 2, 2, 3, 5]
>>> faktorPrima(19)
[19]
>>> |
```

The status bar at the bottom indicates 'Ln 7 Col 20' for the editor and 'Ln 11 Col 4' for the shell.

8.



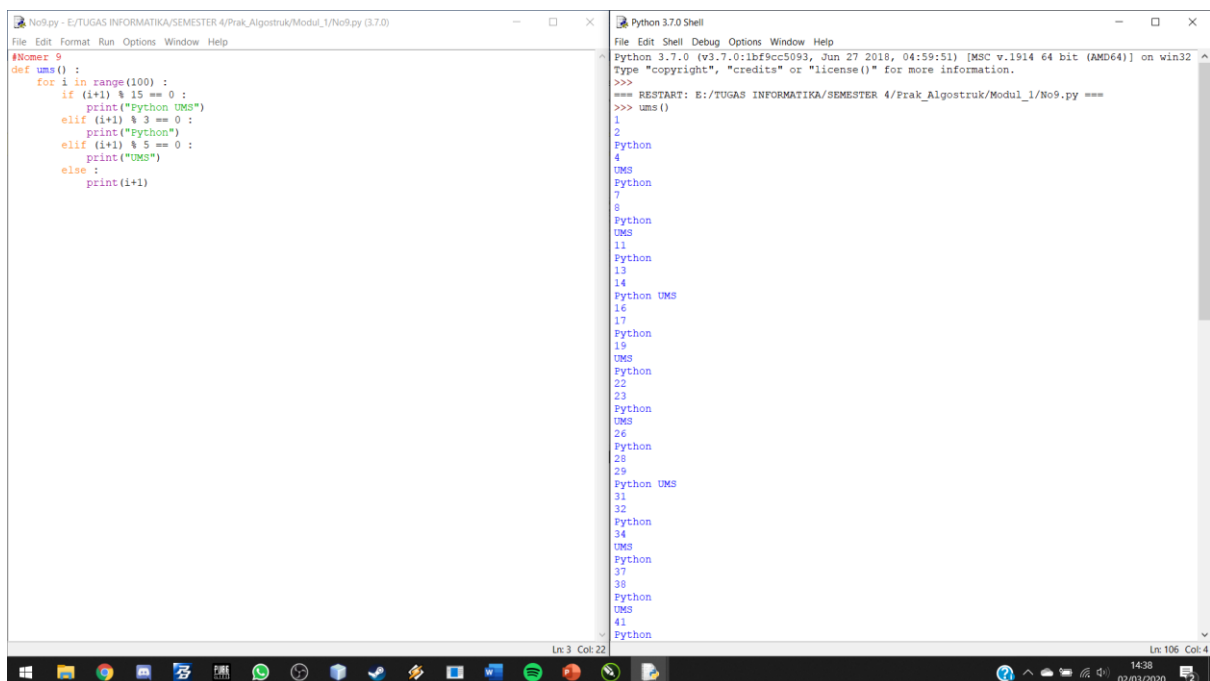
The screenshot shows a Python IDE with two windows. The left window, titled 'No8.py - E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No8.py (3.7.0)', contains the following code:

```
#Nomer 8
def apakahTerkandung(a,b) :
    if a in b :
        return True
    else :
        return False
```

The right window, titled 'Python 3.7.0 Shell', shows the execution of the code:

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No8.py ===
>>> h = 'do'
>>> k = 'Indonesia tanah air beta'
>>> apakahTerkandung(h,k)
True
>>> apakahTerkandung('pusaka',k)
False
>>>
```

9.



The screenshot shows a Python IDE with two windows. The left window, titled 'No9.py - E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No9.py (3.7.0)', contains the following code:

```
#Nomer 9
def ums() :
    for i in range(100) :
        if (i+1) % 15 == 0 :
            print("Python UMS")
        elif (i+1) % 3 == 0 :
            print("Python")
        elif (i+1) % 5 == 0 :
            print("UMS")
        else :
            print(i+1)
```

The right window, titled 'Python 3.7.0 Shell', shows the execution of the code:

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No9.py ===
>>> ums()
1
2
Python
4
UMS
Python
7
8
Python
UMS
11
Python
13
14
Python UMS
16
17
Python
19
UMS
Python
22
23
Python
UMS
26
Python
28
29
Python UMS
31
32
Python
34
UMS
Python
37
38
Python
UMS
41
Python
```

```
File Edit Format Run Options Window Help
#Nomer 9
def ums():
    for i in range(100):
        if (i+1) % 15 == 0:
            print("Python UMS")
        elif (i+1) % 3 == 0:
            print("Python")
        elif (i+1) % 5 == 0:
            print("UMS")
        else:
            print(i+1)
```

```
File Edit Shell Debug Options Window Help
UMS
56
Python
58
59
Python UMS
61
62
Python
64
UMS
Python
67
68
Python
UMS
71
Python
73
74
Python UMS
76
77
Python
79
UMS
Python
82
83
Python
UMS
86
Python
88
89
Python UMS
91
92
Python
94
UMS
Python
97
98
Python
UMS
>>> |
```

Ln 3 Col 22

Ln 106 Col 4

14:38
02/03/2020

10.

```
File Edit Format Run Options Window Help
#Nomer 10
def selesaikanABC(a,b,c):
    res = 0
    res = (b**2) - (4*a*c)

    if res == 0:
        print("Determinannya nol. Persamaan mempunyai satu akar kembar.")
    elif res > 0:
        print("Determinannya positif. Persamaan mempunyai akar real dan berlainan.")
    elif res < 0:
        print("Determinannya negatif. Persamaan tidak mempunyai akar real.")
```

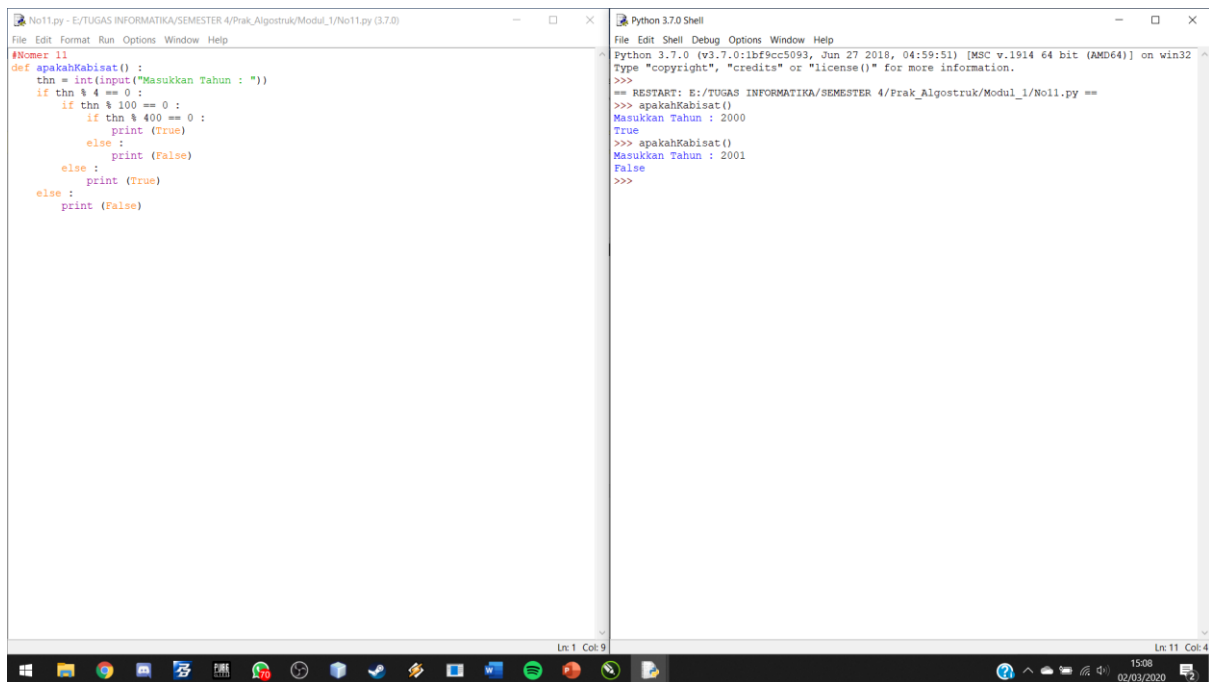
```
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
== RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/PraK_Algostruk/Modul_1/No10.py ==
>>> selesaikanABC(1,2,3)
Determinannya negatif. Persamaan tidak mempunyai akar real.
>>>
```

Ln 12 Col 0

Ln 7 Col 4

14:40
02/03/2020

11.

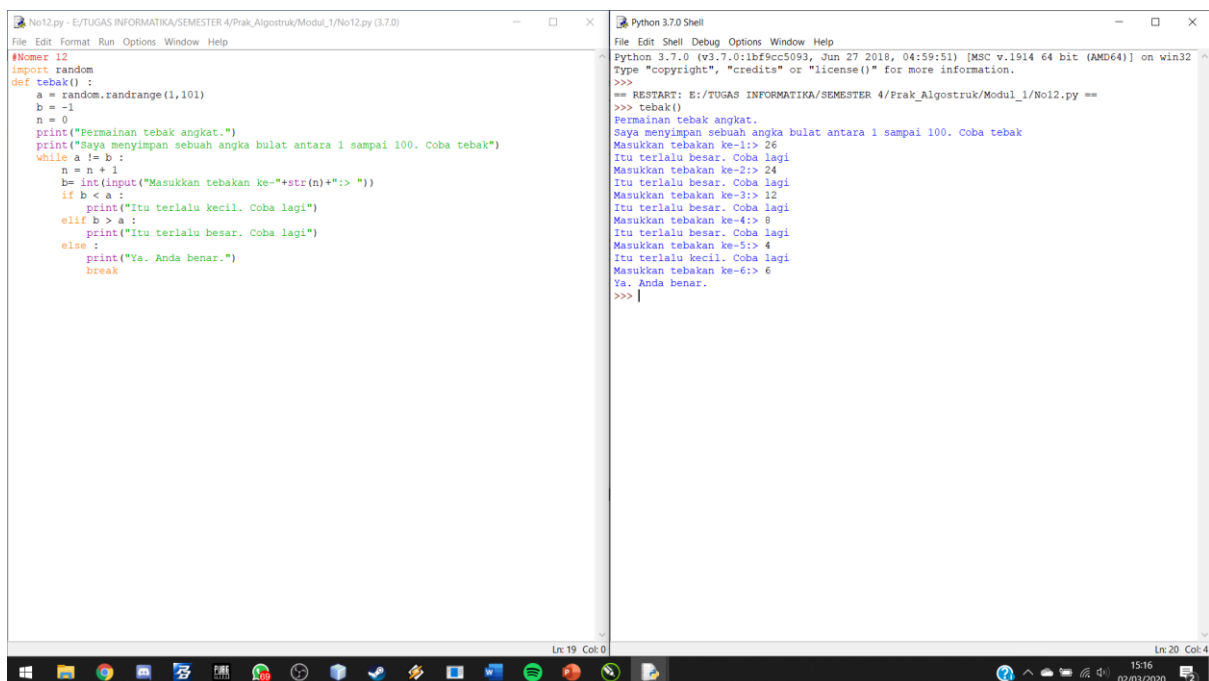


The screenshot shows a Python IDE with two windows. The left window, titled 'No11.py', contains a function `apakahKabisat()` that checks if a year is a leap year. The right window, titled 'Python 3.7.0 Shell', shows the execution of the script. The user has entered the year 2000, which is correctly identified as a leap year (True). The user then entered 2001, which is correctly identified as not a leap year (False).

```
def apakahKabisat() :  
    thn = int(input("Masukkan Tahun : "))  
    if thn % 4 == 0 :  
        if thn % 100 == 0 :  
            if thn % 400 == 0 :  
                print (True)  
            else :  
                print (False)  
        else :  
            print (True)  
    else :  
        print (False)
```

```
>>> apakahKabisat()  
Masukkan Tahun : 2000  
True  
>>> apakahKabisat()  
Masukkan Tahun : 2001  
False  
>>>
```

12.



The screenshot shows a Python IDE with two windows. The left window, titled 'No12.py', contains a script for a number guessing game. The right window, titled 'Python 3.7.0 Shell', shows the execution of the script. The user has entered a random number (26) and the script has provided feedback: 'Itu terlalu besar. Coba lagi'. The user has entered 24, 12, 8, 4, and 6, all of which were also 'too big'. Finally, the user entered 6, and the script correctly identified it as the right number ('Ya. Anda benar.').

```
import random  
def tebak() :  
    a = random.randrange(1,101)  
    b = -1  
    n = 0  
    print("Permainan tebak angkat.")  
    print("Saya menyimpan sebuah angka bulat antara 1 sampai 100. Coba tebak")  
    while a != b :  
        n = n + 1  
        b = int(input("Masukkan tebakan ke-"+str(n)+"> "))  
        if b < a :  
            print("Itu terlalu kecil. Coba lagi")  
        elif b > a :  
            print("Itu terlalu besar. Coba lagi")  
        else :  
            print("Ya. Anda benar.")  
            break
```

```
>>> tebak()  
Permainan tebak angkat.  
Saya menyimpan sebuah angka bulat antara 1 sampai 100. Coba tebak  
Masukkan tebakan ke-1> 26  
Itu terlalu besar. Coba lagi  
Masukkan tebakan ke-2> 24  
Itu terlalu besar. Coba lagi  
Masukkan tebakan ke-3> 12  
Itu terlalu besar. Coba lagi  
Masukkan tebakan ke-4> 8  
Itu terlalu besar. Coba lagi  
Masukkan tebakan ke-5> 4  
Itu terlalu kecil. Coba lagi  
Masukkan tebakan ke-6> 6  
Ya. Anda benar.  
>>>
```

13.

```

No13.py - E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No13.py (3.7.0)
File Edit Format Run Options Window Help
#Nomer 13
def katakan(x):
    satuan = [' ', 'satu', 'dua', 'tiga', 'empat', 'lima', 'enam', 'tujuh', 'delapan', 'sembil']
    hasil = ""
    if x <= 0:
        hasil += 'Bilangan Haruslah Positif\ndan Bilangan Asli'
    elif x < 12:
        hasil += satuan[x]
    elif x < 20:
        hasil += katakan(x-10) + " belas "
    elif x < 100:
        hasil += katakan(int(x/10)) + " puluh " + katakan(x%10)
    elif x < 200:
        hasil += "seratus " + katakan(x-100)
    elif x < 1000:
        hasil += katakan(int(x/100)) + " ratus " + katakan(x%100)
    elif x < 2000:
        hasil += "seribu " + katakan(x-1000)
    elif x < 1000000:
        hasil += katakan(int(x/1000)) + " ribu " + katakan(x%1000)
    elif x < 1000000000:
        hasil += katakan(int(x/1000000)) + " juta " + katakan(x%1000000)
    elif x >= 1000000000:
        hasil += katakan(int(x/1000000000)) + " milyar " + katakan(x%1000000000)
    return hasil

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
== RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No13.py ==
>>> katakan(3125750)
'tiga juta seratus dua puluh lima ribu tujuh ratus lima puluh Bilangan Haruslah Positif\ndan Bilangan Asli'
>>>

```

14.

```

No14.py - E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No14.py (3.7.0)
File Edit Format Run Options Window Help
#Nomer 14
def formatRupiah(a):
    a = list(str(a))
    b = len(a)
    if b % 3 == 0:
        b = int(b/3) - 1
    else:
        b = int(b/3)
    n = 0
    for i in range(b):
        x = -3*(i+1)
        a.insert(int(x)+n, ",")
        n = n - 1
    a = "".join(a)
    print("Rp "+a)

Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:59:51) [MSC v.1914 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
== RESTART: E:/TUGAS INFORMATIKA/SEMESTER 4/Prak_Algostruk/Modul_1/No14.py ==
>>> formatRupiah(1500)
Rp 1.500
>>> formatRupiah(2560000)
Rp 2.560.000
>>> formatRupiah(1567389)
Rp 1.567.389
>>>

```