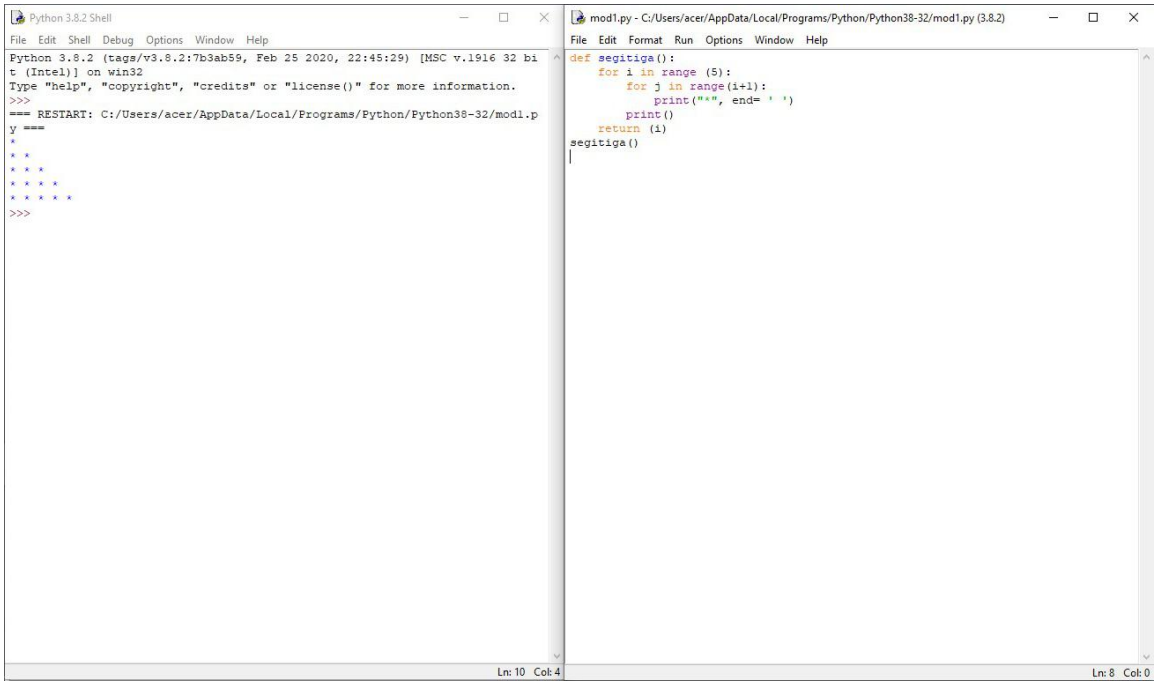
NAMA : Auzan Danar Kusuma

NIM/KELAS : L200180005/A

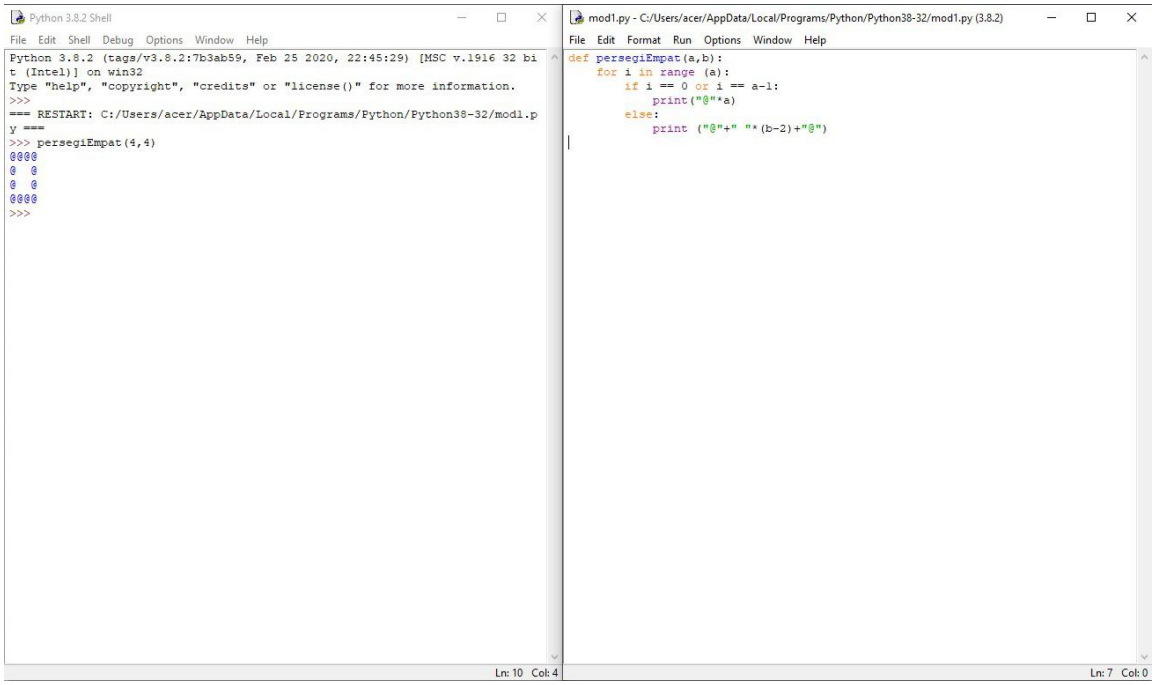
MODUL 1

ALGORITMA& STRUKTURDATA

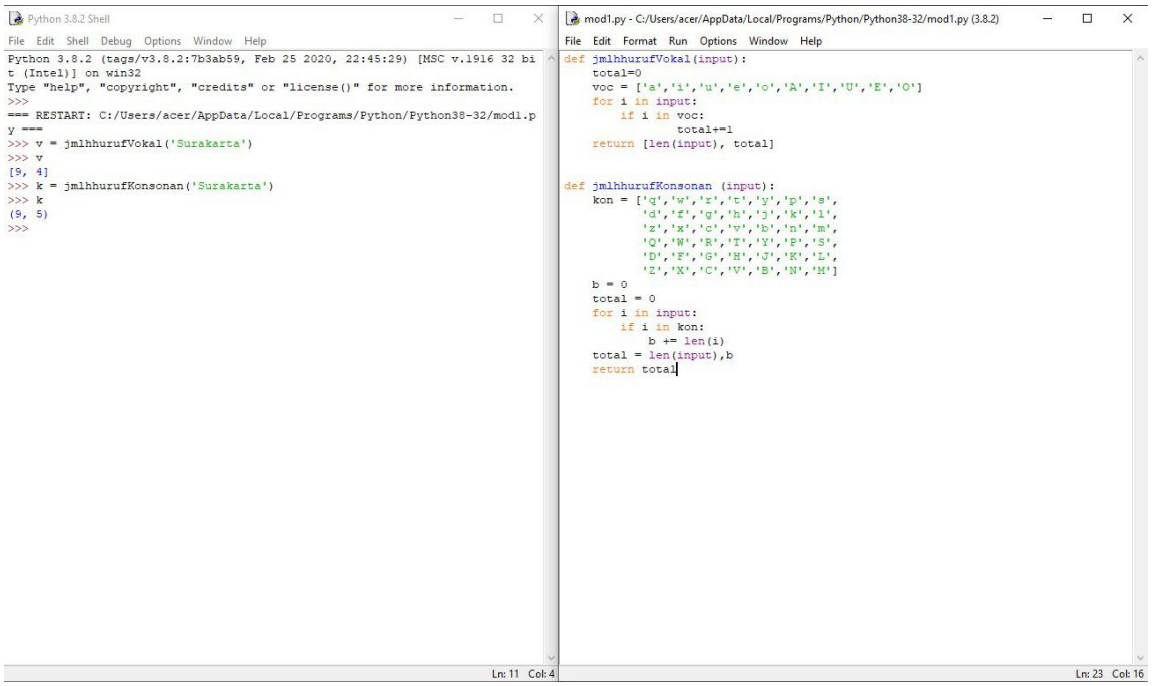
1.



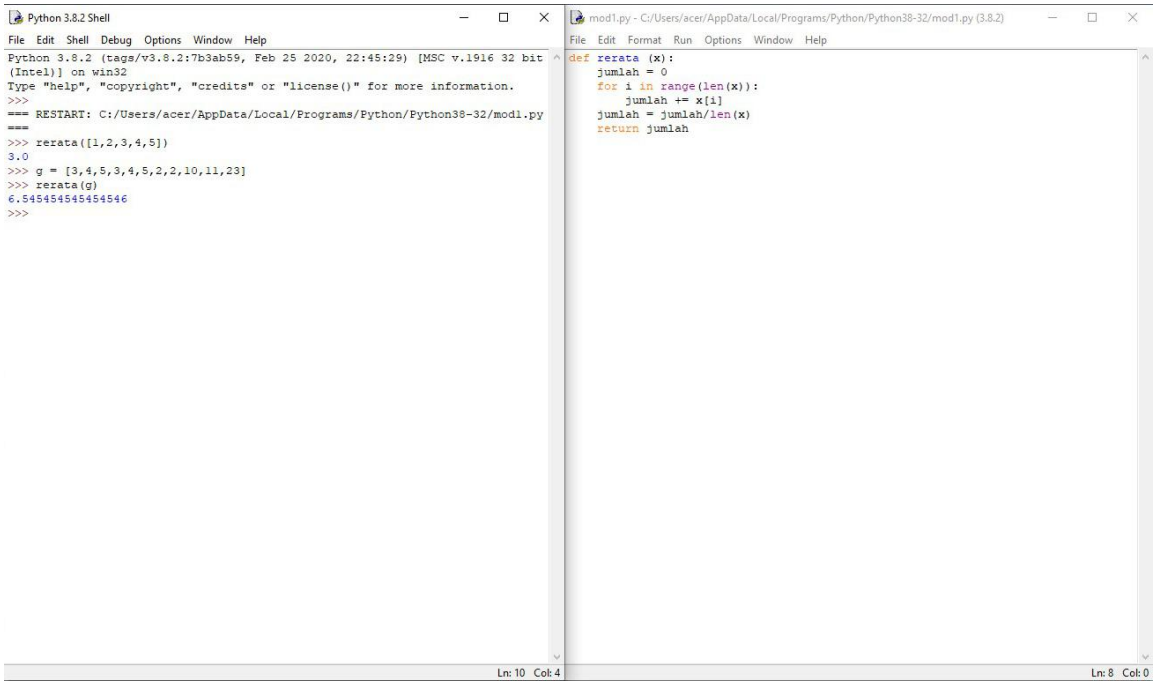
2.



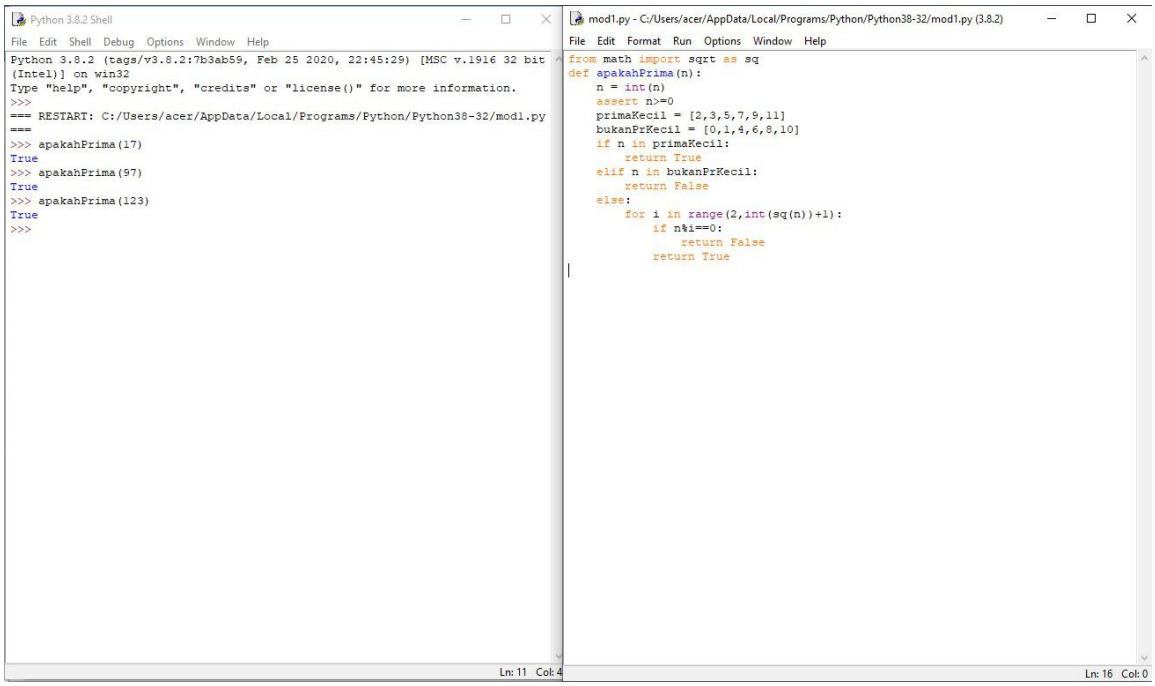
3.


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 (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py ===
>>> v = jmlhhurufVokal('Surakarta')
>>> v
[9, 4]
>>> k = jmlhhurufKonsonan('Surakarta')
>>> k
(9, 5)
>>>
Ln: 11 Col: 4
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File Edit Format Run Options Window Help
def jmlhhurufVokal(input):
total=0
voc = ['a','i','u','e','o','A','I','U','E','O']
for i in input:
if i in voc:
total+=1
return [len(input), total]
def jmlhhurufKonsonan (input):
kon = ['q','w','r','t','y','p','s',
'd','f','g','h','j','k','l',
'z','x','c','v','b','n','m',
'Q','W','R','T','Y','P','S',
'D','F','G','H','J','K','L',
'Z','X','C','V','B','N','M']
b = 0
total = 0
for i in input:
if i in kon:
b += len(i)
total = len(input),b
return total
Ln: 23 Col: 16

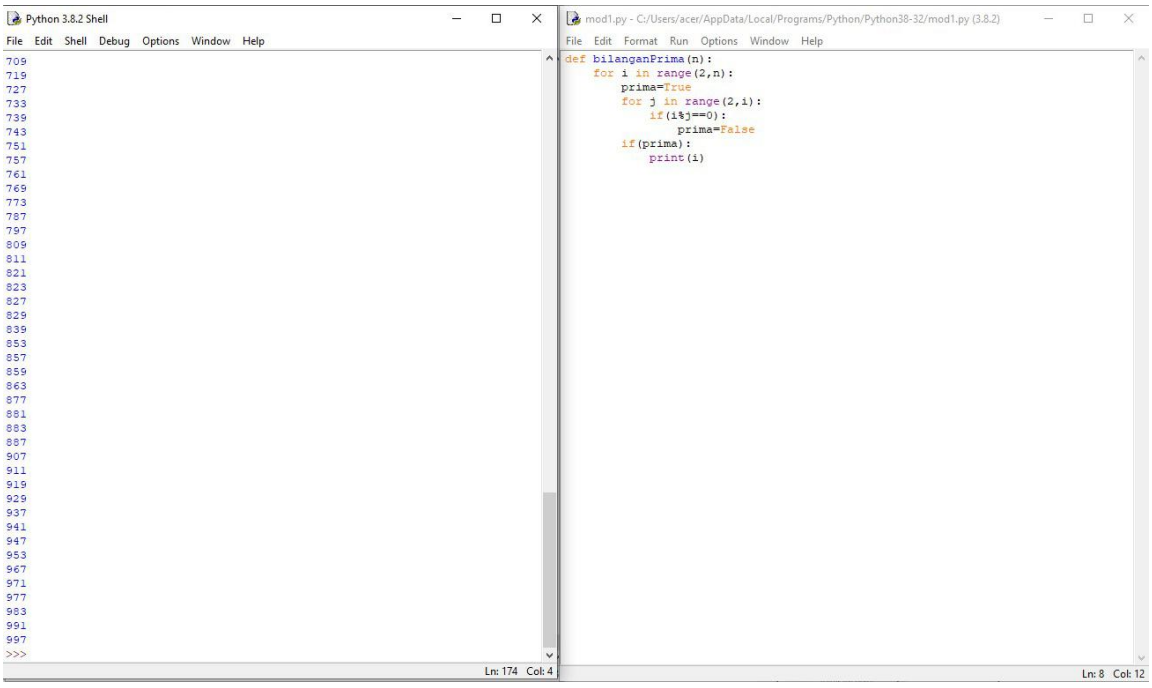
4.


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 (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py ===
>>> rerata([1,2,3,4,5])
3.0
>>> g = [3,4,5,3,4,5,2,2,10,11,23]
>>> rerata(g)
6.545454545454546
>>>
Ln: 10 Col: 4
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File Edit Format Run Options Window Help
def rerata (x):
jumlah = 0
for i in range(len(x)):
jumlah += x[i]
jumlah = jumlah/len(x)
return jumlah
Ln: 8 Col: 0

5.


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 (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py ===
>>> apakahPrima(17)
True
>>> apakahPrima(97)
True
>>> apakahPrima(123)
True
>>>
Ln: 11 Col: 4
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File Edit Format Run Options Window Help
from math import sqrt as sq
def apakahPrima(n):
n = int(n)
assert n>=0
primaKecil = [2,3,5,7,9,11]
bukanPrKecil = [0,1,4,6,8,10]
if n in primaKecil:
return True
elif n in bukanPrKecil:
return False
else:
for i in range(2,int(sq(n))+1):
if n%i==0:
return False
return True
Ln: 16 Col: 0

6.


Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
709
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881
883
887
907
911
919
929
937
941
947
953
967
971
977
983
991
997
>>>
Ln: 174 Col: 4
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File Edit Format Run Options Window Help
def bilanganPrima(n):
for i in range(2,n):
prima=True
for j in range(2,i):
if(i%j==0):
prima=False
if(prima):
print(i)
Ln: 8 Col: 12

7.

```
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
 (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py
 ===
>>> faktorPrima(10)
[2, 5]
>>> faktorPrima(120)
[2, 2, 2, 3, 5]
>>> faktorPrima(19)
[19]
>>>
```

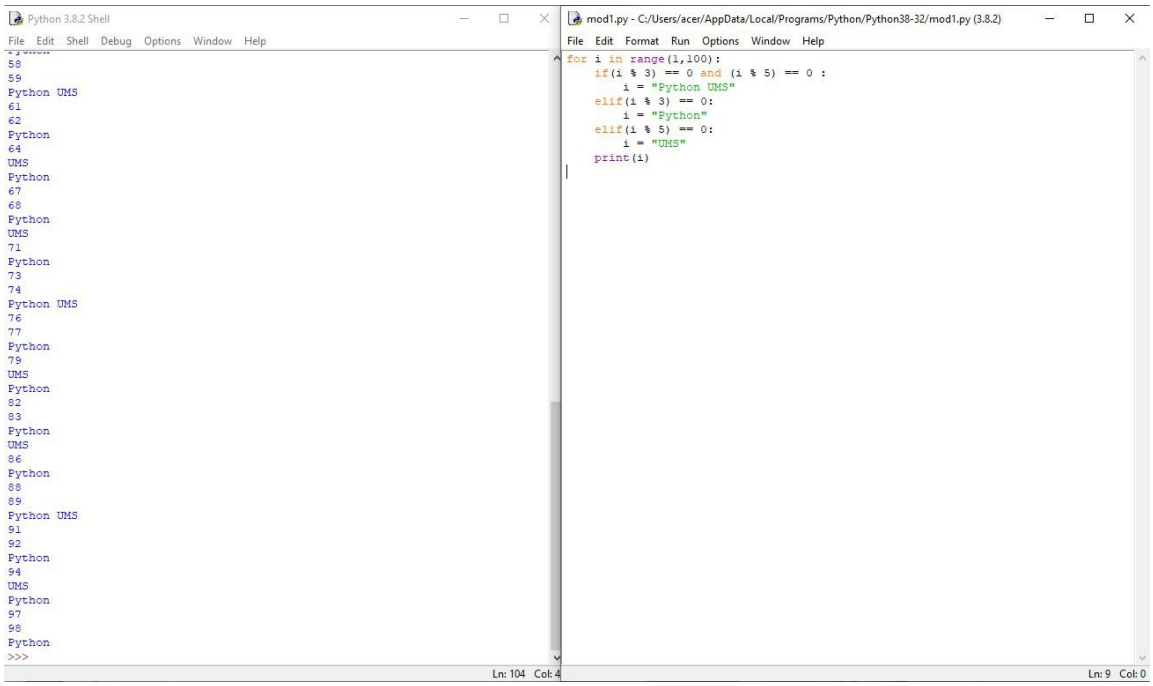
```
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File  Edit  Format  Run  Options  Window  Help
def faktorPrima(x):
    bilanganList = []
    loop = 2
    while loop <= x:
        if x % loop == 0:
            x /= loop
            bilanganList.append(loop)
        else:
            loop += 1
    return bilanganList
```

8.

```
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 bi
t (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.p
y ===
>>> h = 'do'
>>> k = 'Indonesia tanah air beta'
>>> apakahTerkandung(h, k)
True
>>> apakahTerkandung('pusaka',k)
False
>>>
```

```
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File  Edit  Format  Run  Options  Window  Help
def apakahTerkandung(a,b):
    x = True
    for i in range(len(b)):
        if a in b:
            x=True
        else:
            x=False
    return x
```

9.


Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
58
59
Python UMS
61
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Python
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UMS
Python
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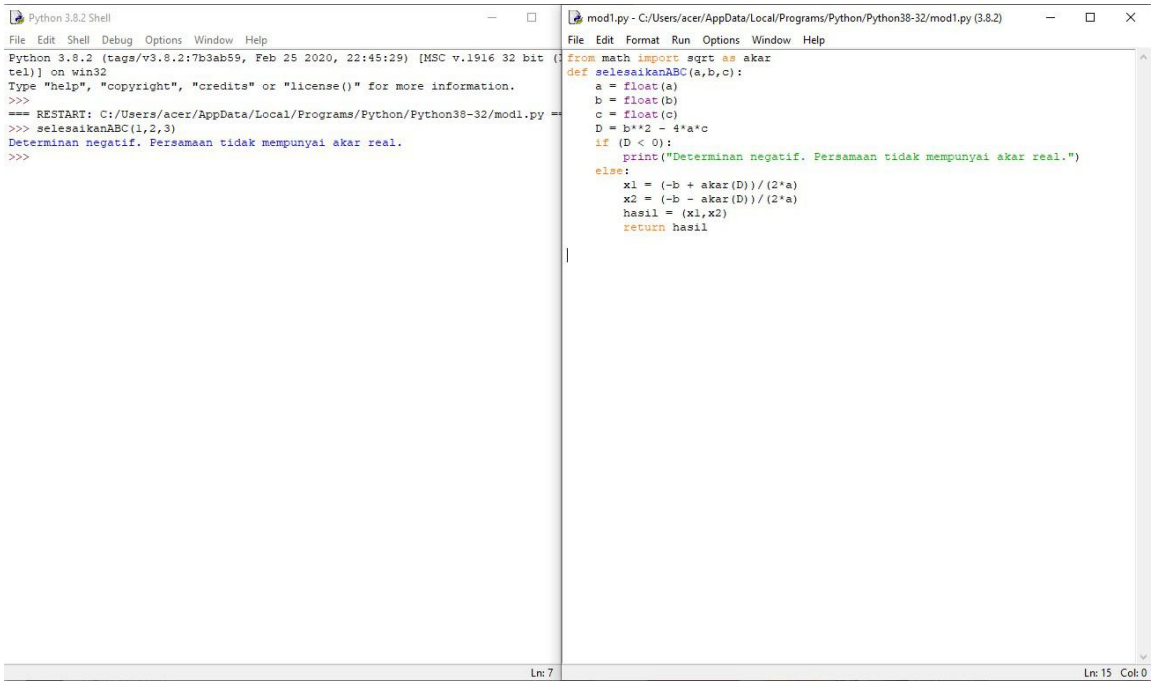
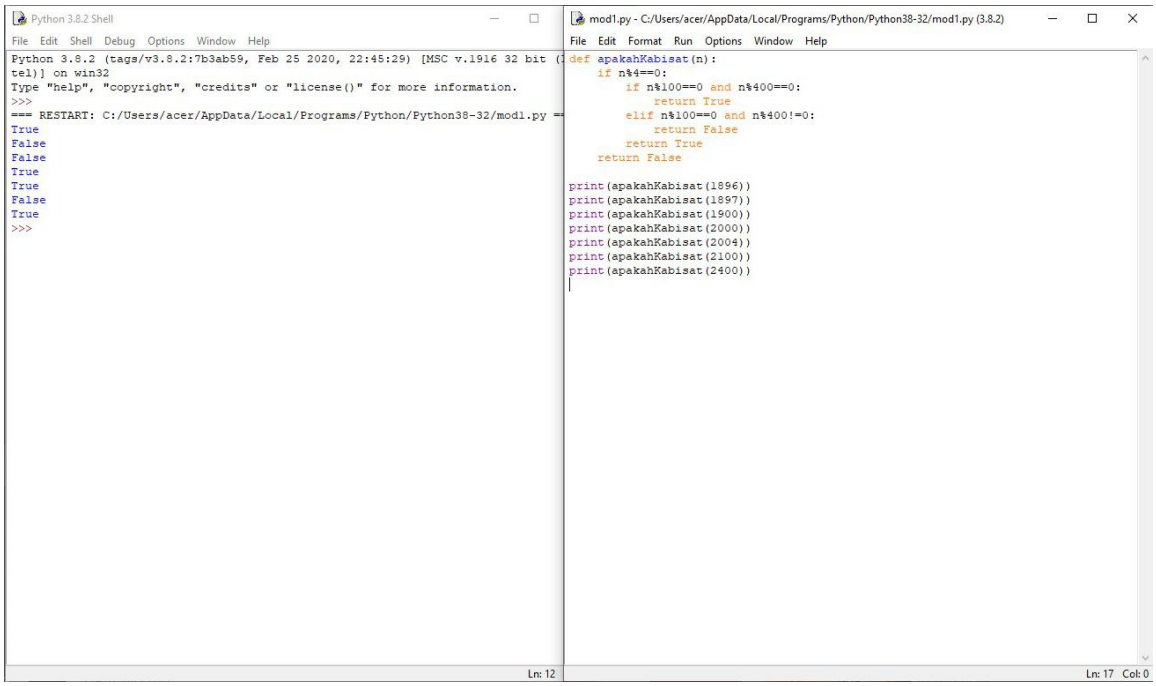
Python
UMS
71
Python
73
74
Python UMS
76
77
Python
79
UMS
Python
82
83
Python
UMS
86
Python
88
89
Python UMS
91
92
Python
94
UMS
Python
97
98
Python
>>>
Ln: 104 Col: 4
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File Edit Format Run Options Window Help
for i in range(1,100):
if(i % 3) == 0 and (i % 5) == 0 :
i = "Python UMS"
elif(i % 3) == 0:
i = "Python"
elif(i % 5) == 0:
i = "UMS"
print(i)
Ln: 9 Col: 0

10.


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 (I
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py ==
>>> selesaikanABC(1,2,3)
Determinan negatif. Persamaan tidak mempunyai akar real.
>>>
Ln: 7
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File Edit Format Run Options Window Help
from math import sqrt as akar
def selesaikanABC(a,b,c):
a = float(a)
b = float(b)
c = float(c)
D = b**2 - 4*a*c
if (D < 0):
print("Determinan negatif. Persamaan tidak mempunyai akar real.")
else:
x1 = (-b + akar(D))/(2*a)
x2 = (-b - akar(D))/(2*a)
hasil = (x1,x2)
return hasil
Ln: 15 Col: 0

11.

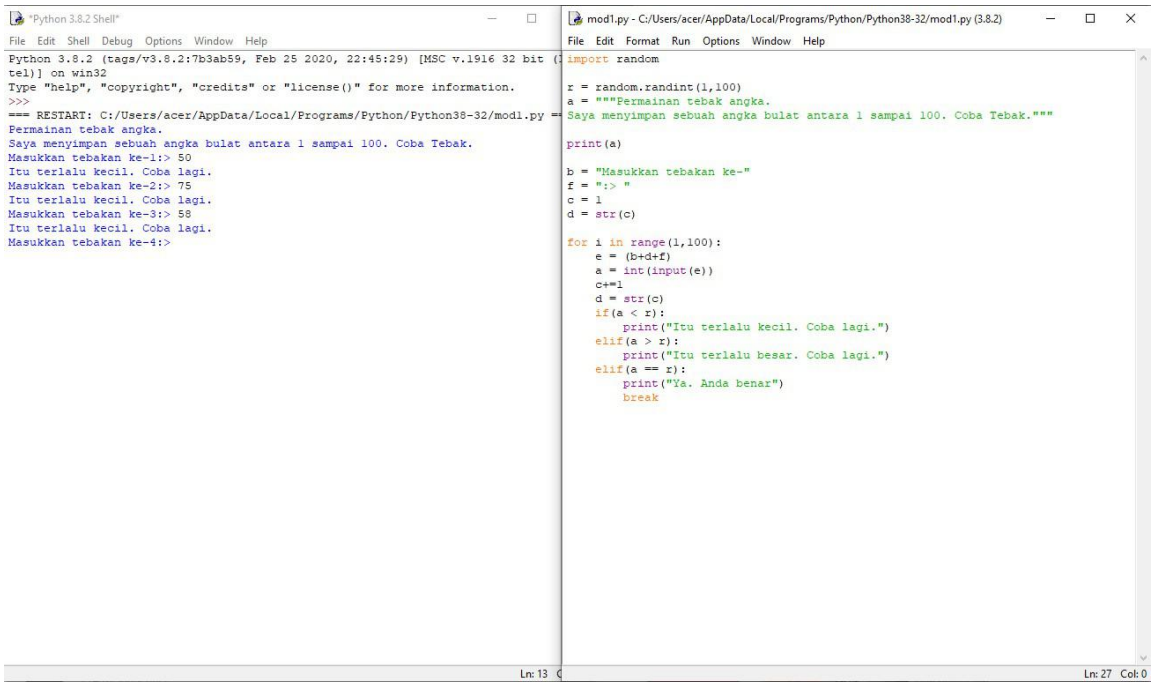


```
Python 3.8.2 Shell
File  Edit  Shell  Debug  Options  Window  Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (I
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py ==
True
False
False
True
True
False
True
>>>
```

```
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File  Edit  Format  Run  Options  Window  Help
def apakahKabisat(n):
    if n%4==0:
        if n%100==0 and n%400==0:
            return True
        elif n%100==0 and n%400!=0:
            return False
        return True
    return False

print(apakahKabisat(1896))
print(apakahKabisat(1897))
print(apakahKabisat(1900))
print(apakahKabisat(2000))
print(apakahKabisat(2004))
print(apakahKabisat(2100))
print(apakahKabisat(2400))
```

Ln: 12 Ln: 17 Col: 0

12.

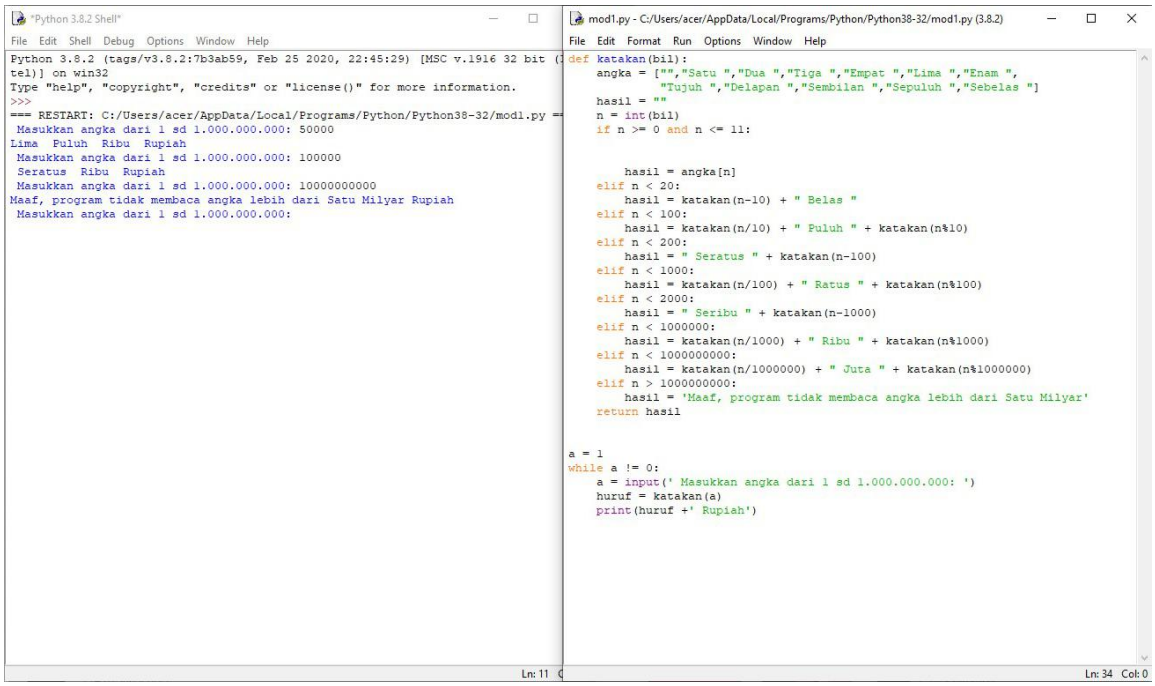


```
*Python 3.8.2 Shell*
File  Edit  Shell  Debug  Options  Window  Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (I
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py ==
Permainan tebak angka.
Saya menyimpan sebuah angka bulat antara 1 sampai 100. Coba Tebak.
Masukkan tebakan ke-1:> 50
Itu terlalu kecil. Coba lagi.
Masukkan tebakan ke-2:> 75
Itu terlalu kecil. Coba lagi.
Masukkan tebakan ke-3:> 58
Itu terlalu kecil. Coba lagi.
Masukkan tebakan ke-4:>
```

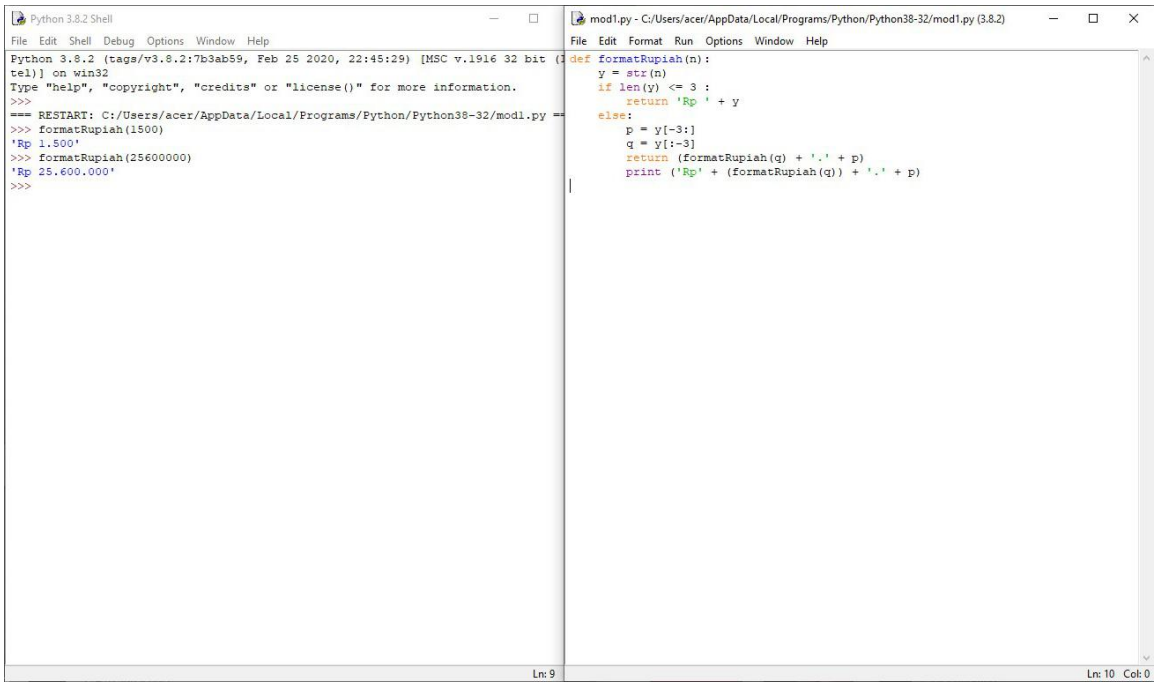
```
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File  Edit  Format  Run  Options  Window  Help
import random

r = random.randint(1,100)
a = """Permainan tebak angka.
Saya menyimpan sebuah angka bulat antara 1 sampai 100. Coba Tebak."""

print(a)

b = "Masukkan tebakan ke-"
f = ":> "
c = 1
d = str(c)

for i in range(1,100):
    e = (b+d+f)
    a = int(input(e))
    c+=1
    d = str(c)
    if(a < r):
        print("Itu terlalu kecil. Coba lagi.")
    elif(a > r):
        print("Itu terlalu besar. Coba lagi.")
    elif(a == r):
        print("Ya. Anda benar")
        break
```

Ln: 13 Ln: 27 Col: 0

13.


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 (I
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py ==
Masukkan angka dari 1 sd 1.000.000.000: 50000
Lima Puluh Ribu Rupiah
Masukkan angka dari 1 sd 1.000.000.000: 100000
Seratus Ribu Rupiah
Masukkan angka dari 1 sd 1.000.000.000: 10000000000
Maaf, program tidak membaca angka lebih dari Satu Milyar Rupiah
Masukkan angka dari 1 sd 1.000.000.000:
Ln: 11
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File Edit Format Run Options Window Help
def katakan(bil):
angka = ["","Satu ","Dua ","Tiga ","Empat ","Lima ","Enam ",
"Tujuh ","Delapan ","Sembilan ","Sepuluh ","Sebelas "]
hasil = ""
n = int(bil)
if n >= 0 and n <= 11:
hasil = angka[n]
elif n < 20:
hasil = katakan(n-10) + " Belas "
elif n < 100:
hasil = katakan(n/10) + " Puluh " + katakan(n%10)
elif n < 200:
hasil = " Seratus " + katakan(n-100)
elif n < 1000:
hasil = katakan(n/100) + " Ratus " + katakan(n%100)
elif n < 2000:
hasil = " Seribu " + katakan(n-1000)
elif n < 1000000:
hasil = katakan(n/1000) + " Ribu " + katakan(n%1000)
elif n < 1000000000:
hasil = katakan(n/1000000) + " Juta " + katakan(n%1000000)
elif n > 1000000000:
hasil = 'Maaf, program tidak membaca angka lebih dari Satu Milyar'
return hasil
a = 1
while a != 0:
a = input(' Masukkan angka dari 1 sd 1.000.000.000: ')
huruf = katakan(a)
print(huruf +' Rupiah')
Ln: 34 Col: 0

14.


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 (I
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py ==
>>> formatRupiah(1500)
'Rp 1.500'
>>> formatRupiah(25600000)
'Rp 25.600.000'
>>>
Ln: 9
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File Edit Format Run Options Window Help
def formatRupiah(n):
y = str(n)
if len(y) <= 3 :
return 'Rp ' + y
else:
p = y[-3:]
q = y[:-3]
return (formatRupiah(q) + '.' + p)
print ('Rp' + (formatRupiah(q)) + '.' + p)
Ln: 10 Col: 0