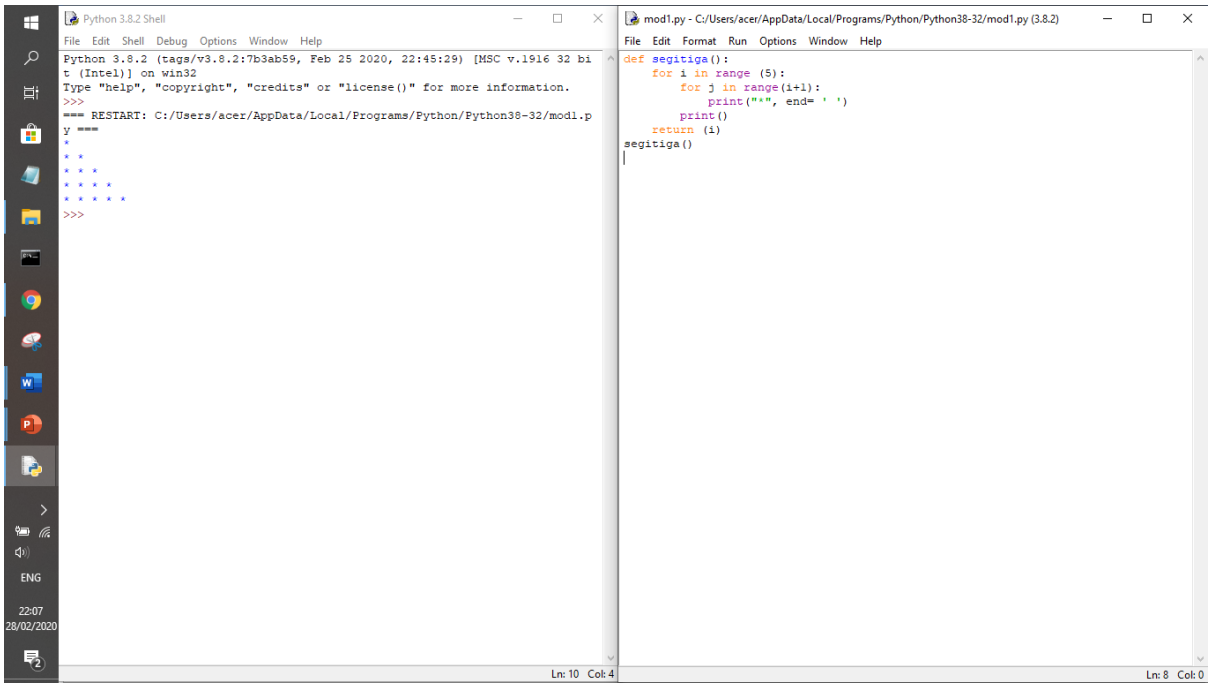
NAMA : DHIYA ULHAQ A

NIM : L200180009

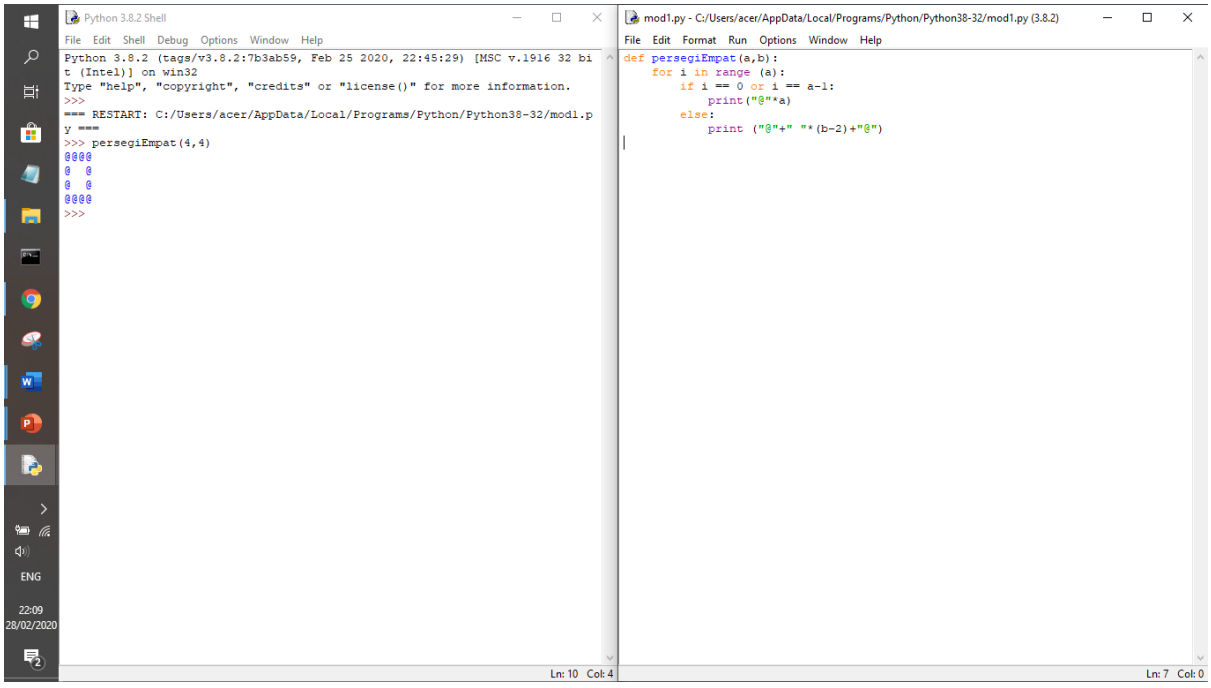
MODUL 1

ALGORITMA& STRUKTURDATA

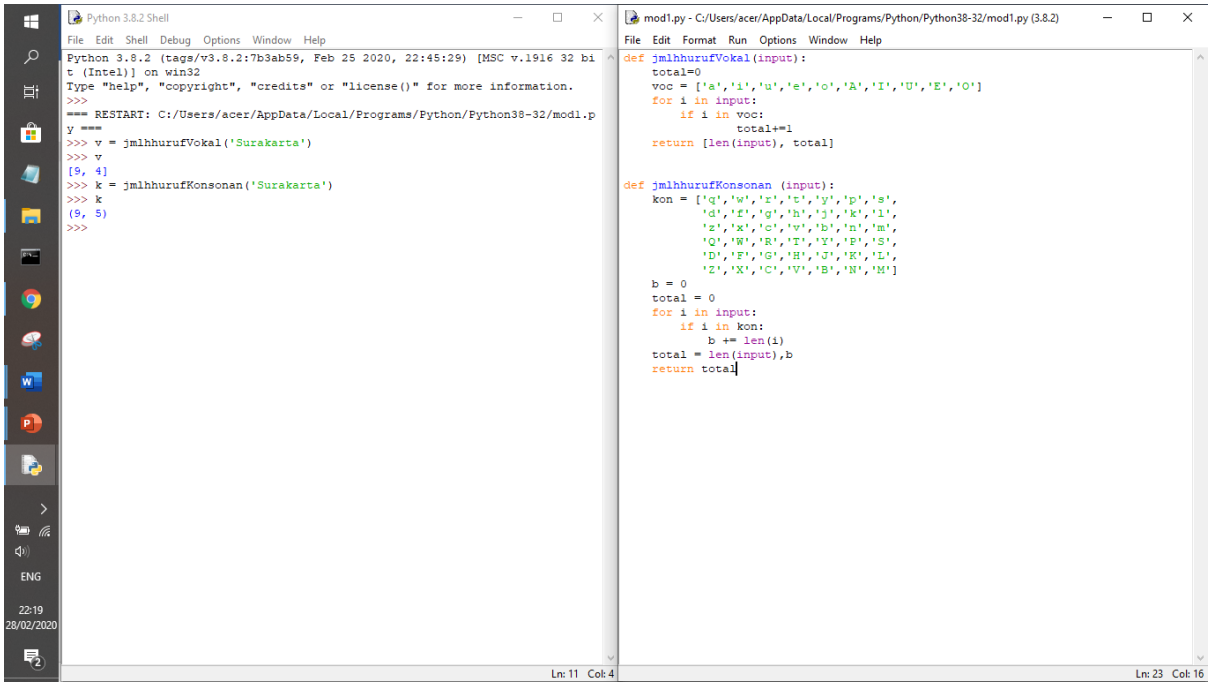
1.



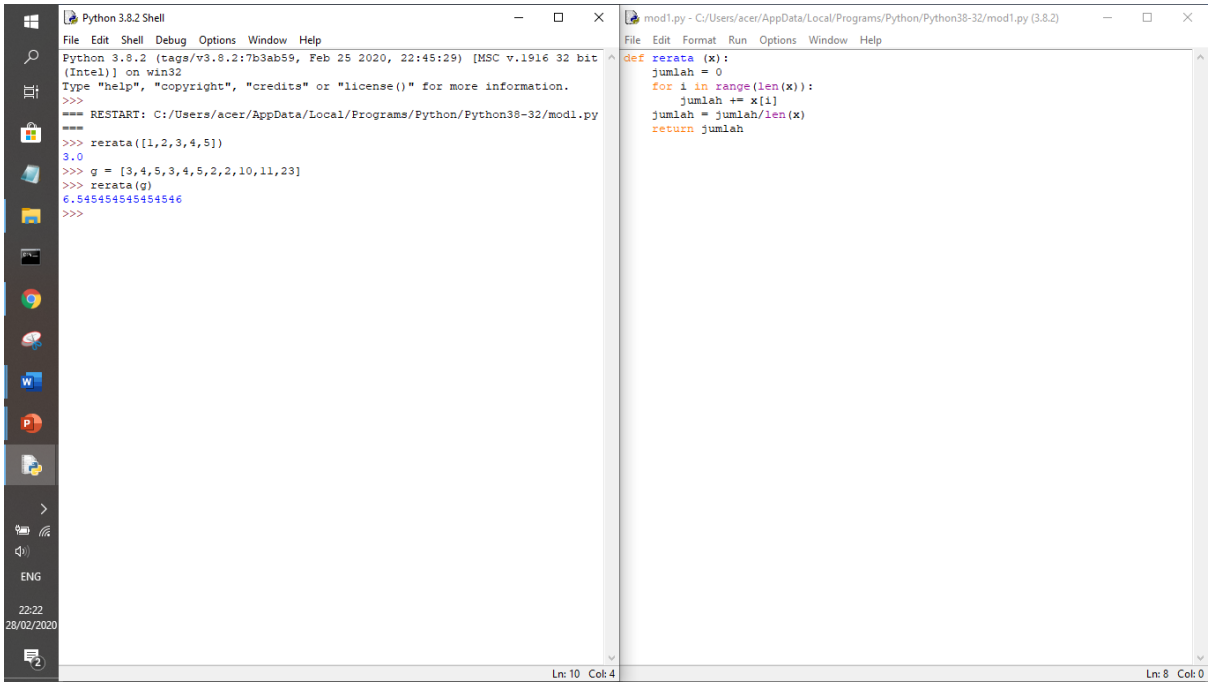
2.



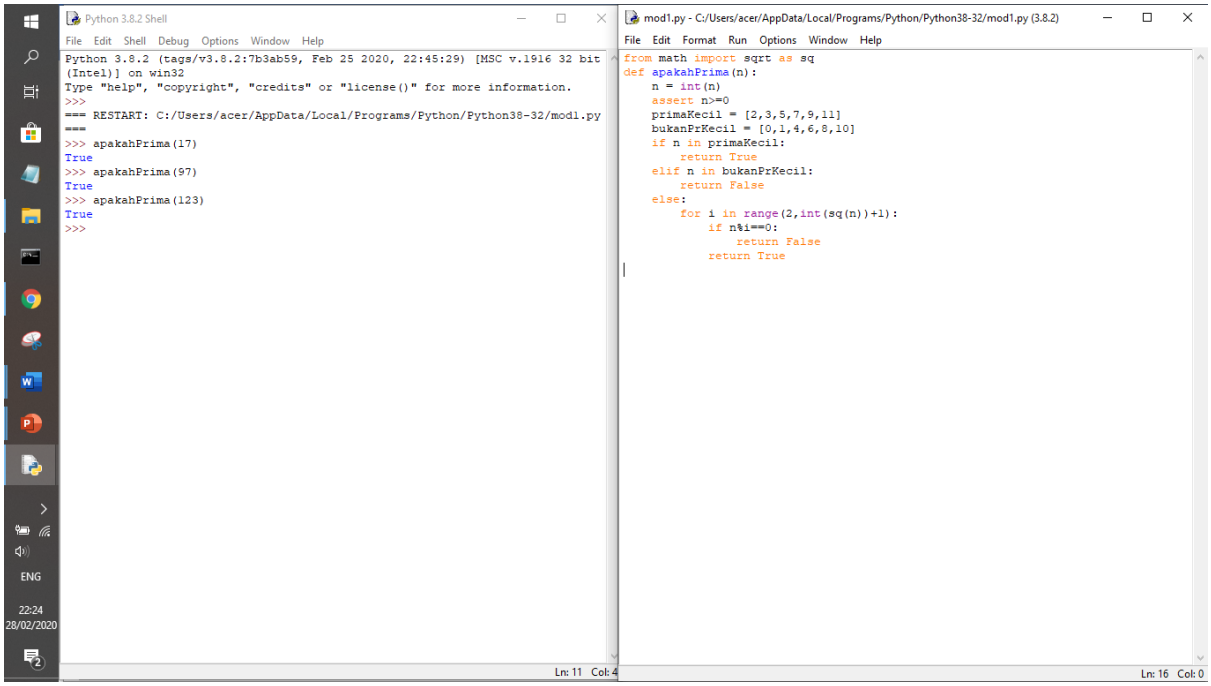
3.


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
ENG
22:19
28/02/2020

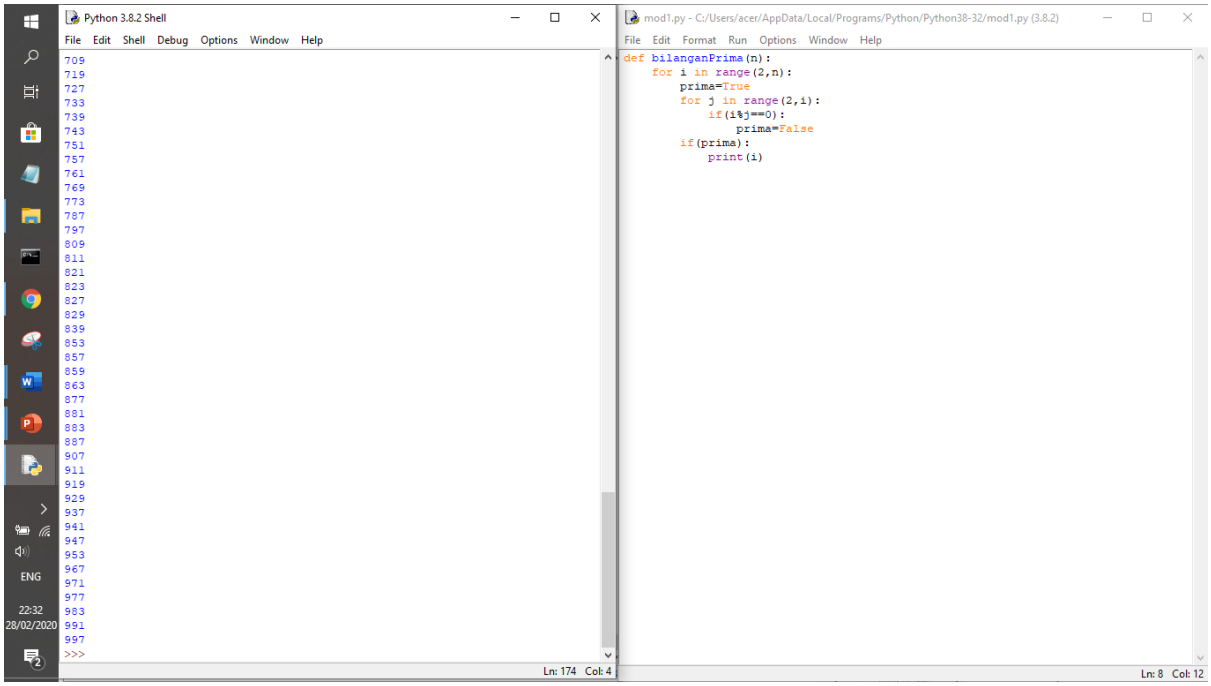
4.


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
ENG
22:22
28/02/2020

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
719
727
733
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751
757
761
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773
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797
809
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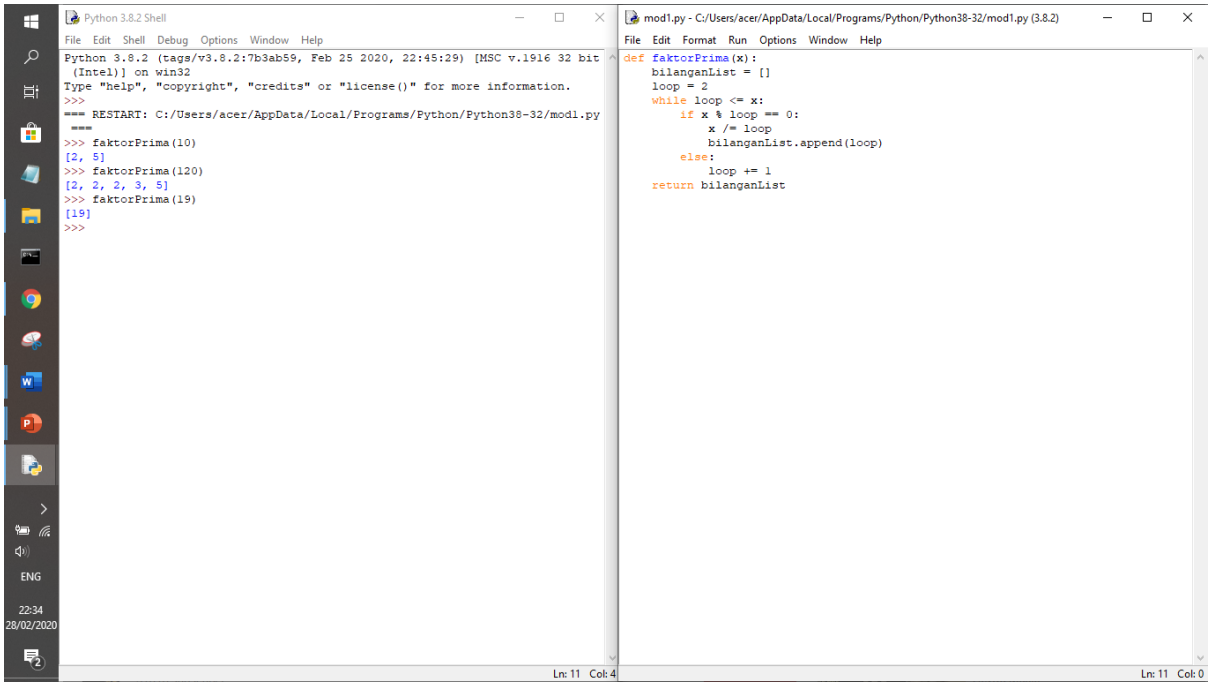
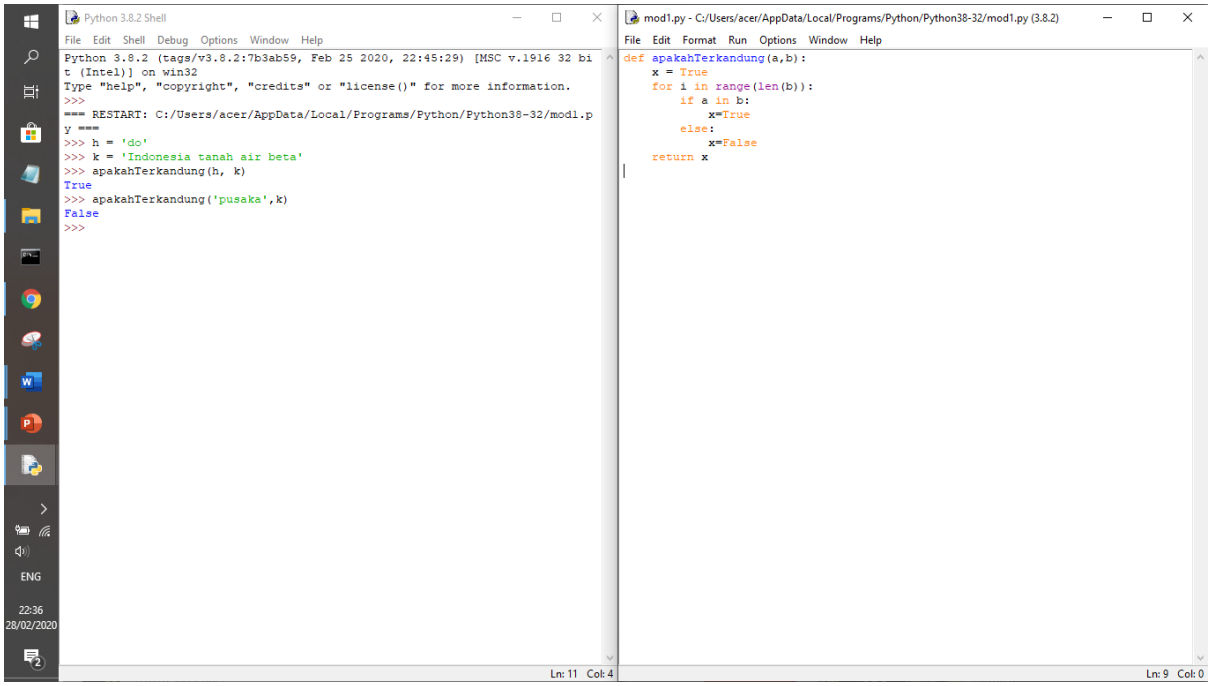
827
829
839
853
857
859
863
877
881
883
887
907
911
919
929
937
941
947
953
967
971
977
983
991
997
>>>
Ln: 174 Col: 4
mod1.py - C:/Users/acer/AppData/Local/Programs/Python/Python38-32/mod1.py (3.8.2)
File Edit Format Run Options Window Help
def bilanganPrima(n):
for i in range(2,n):
prima=True
for j in range(2,i):
if(i%j==0):
prima=False
if(prima):
print(i)
Ln: 8 Col: 12

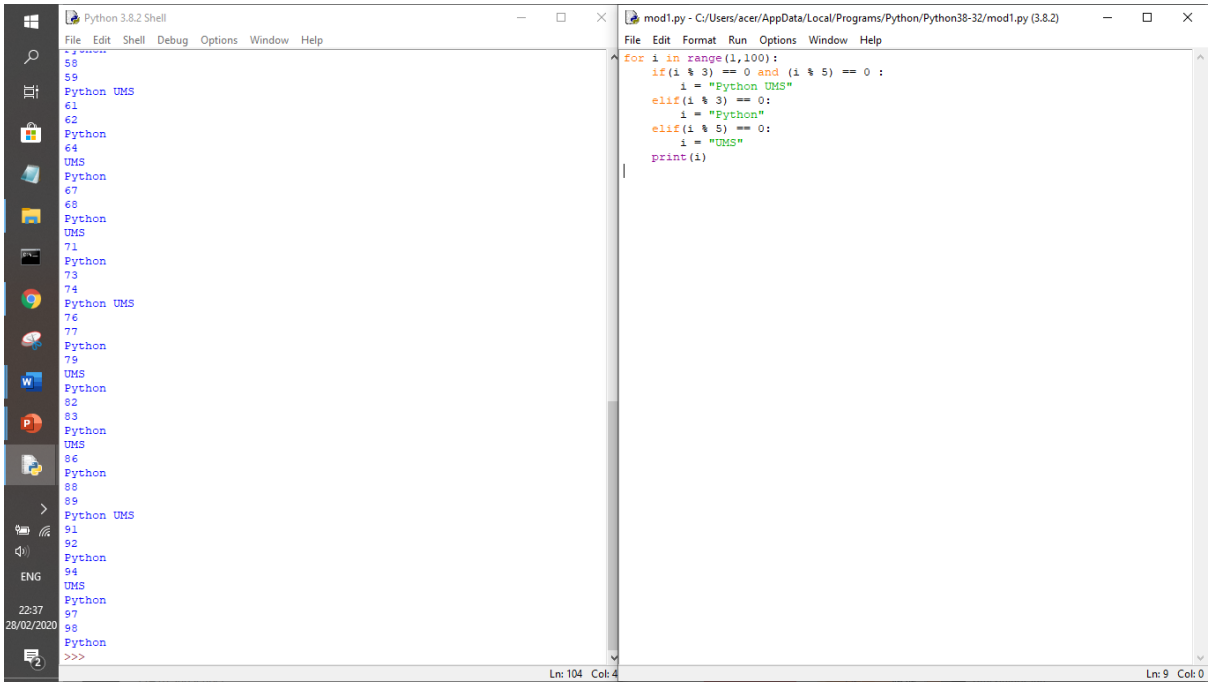
7.


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]
>>>
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 faktorPrima(x):
bilanganList = []
loop = 2
while loop <= x:
if x % loop == 0:
x /= loop
bilanganList.append(loop)
else:
loop += 1
return bilanganList
Ln: 11 Col: 0
ENG
22:34
28/02/2020

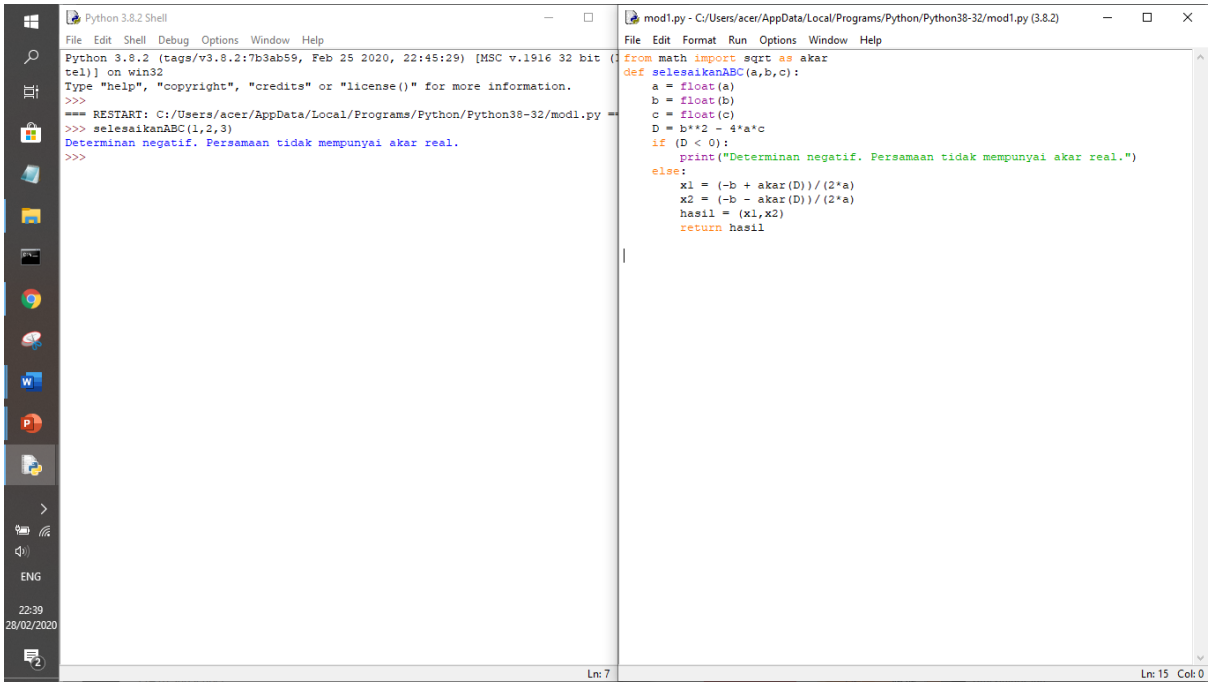
8.


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 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 ===
>>> h = 'do'
>>> k = 'Indonesia tanah air beta'
>>> apakahTerkandung(h, k)
True
>>> apakahTerkandung('pusaka',k)
False
>>>
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 apakahTerkandung(a,b):
x = True
for i in range(len(b)):
if a in b:
x=True
else:
x=False
return x
Ln: 9 Col: 0
ENG
22:36
28/02/2020

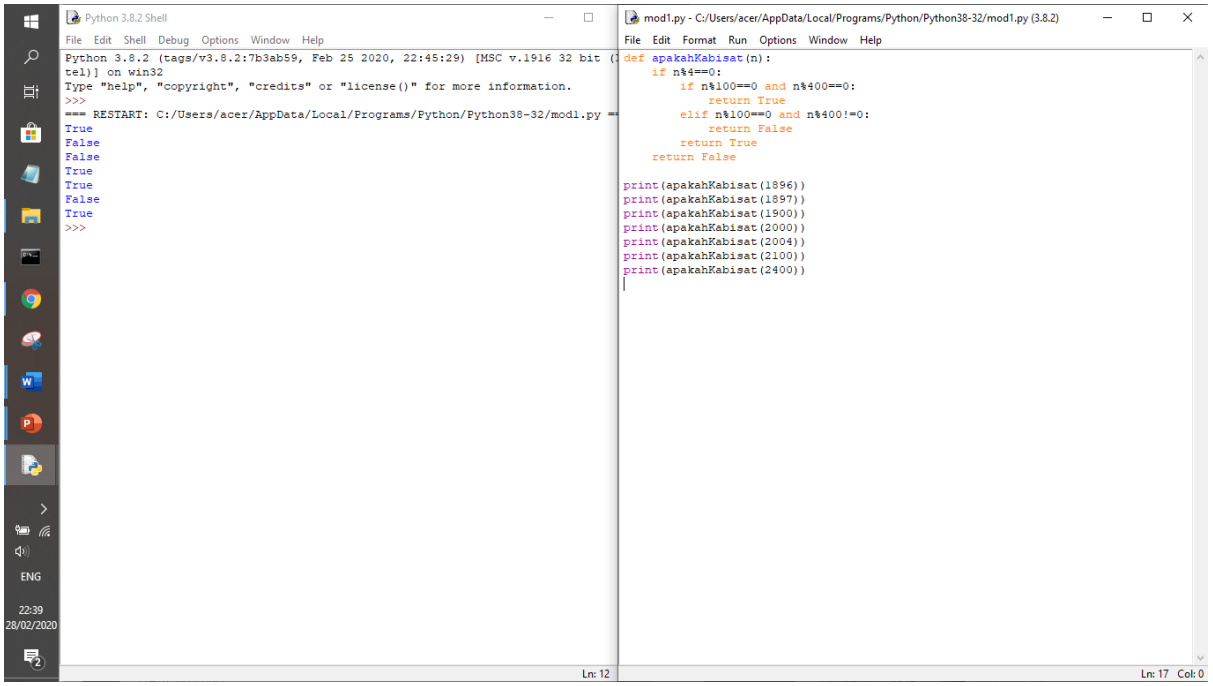
9.


Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
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
>>>
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
ENG
22:37
28/02/2020

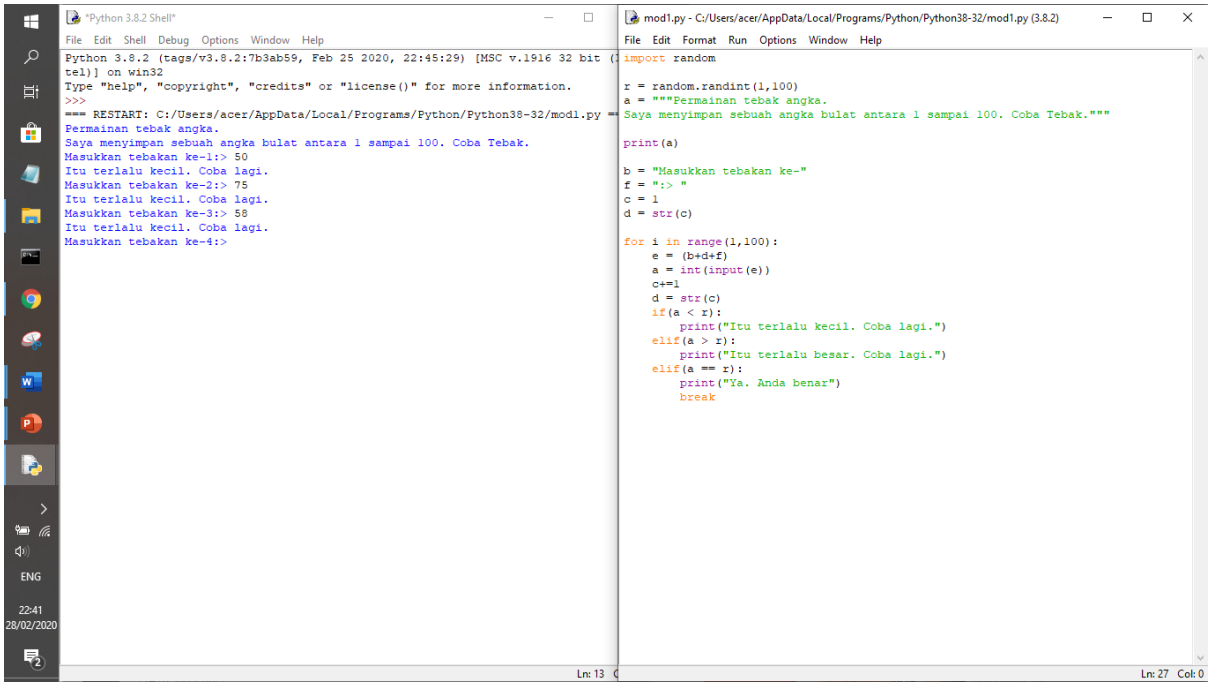
10.


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
ENG
22:39
28/02/2020

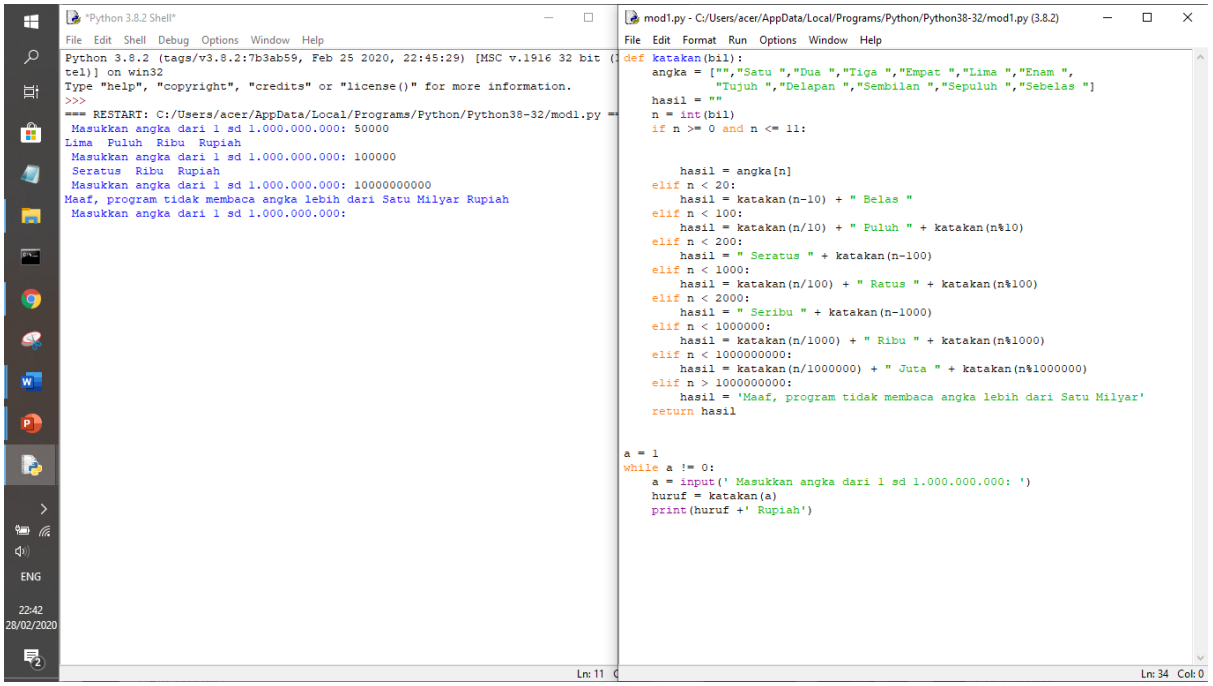
11.


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 (Intel)] 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
>>>
Ln: 12
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: 17 Col: 0
ENG
22:39
28/02/2020

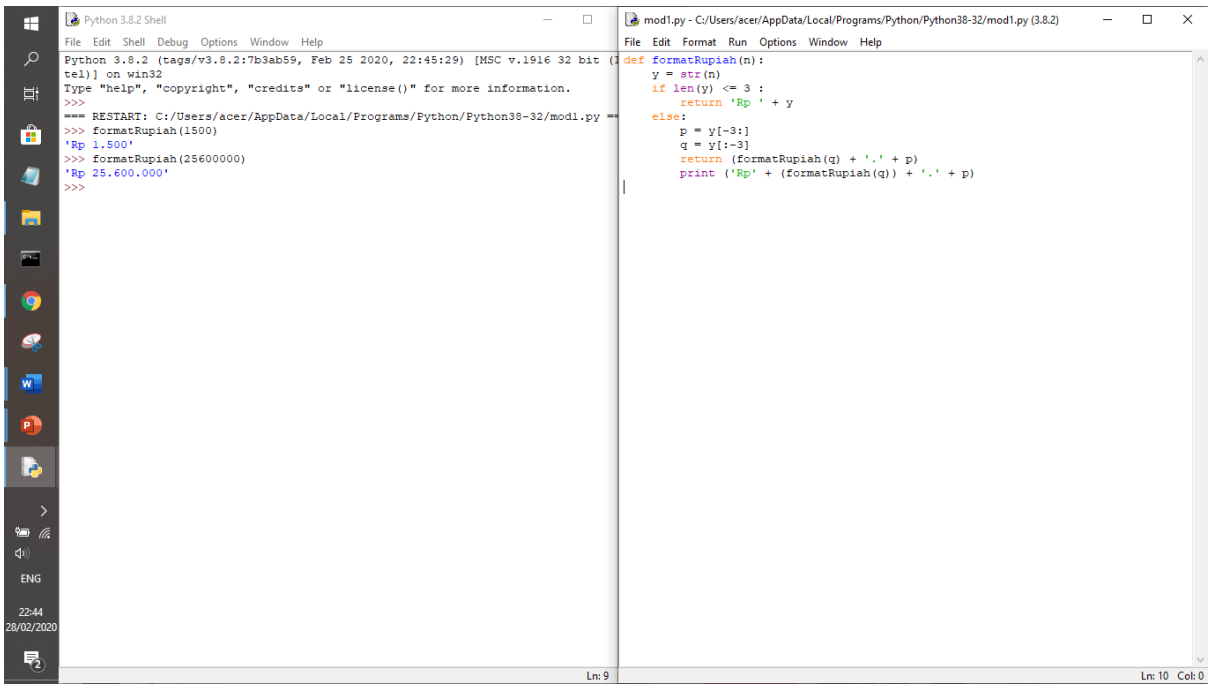
12.


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 (Intel)] 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:>
Ln: 13
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: 27 Col: 0
ENG
22:41
28/02/2020

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
ENG
22:42
28/02/2020

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
ENG
22:44
28/02/2020