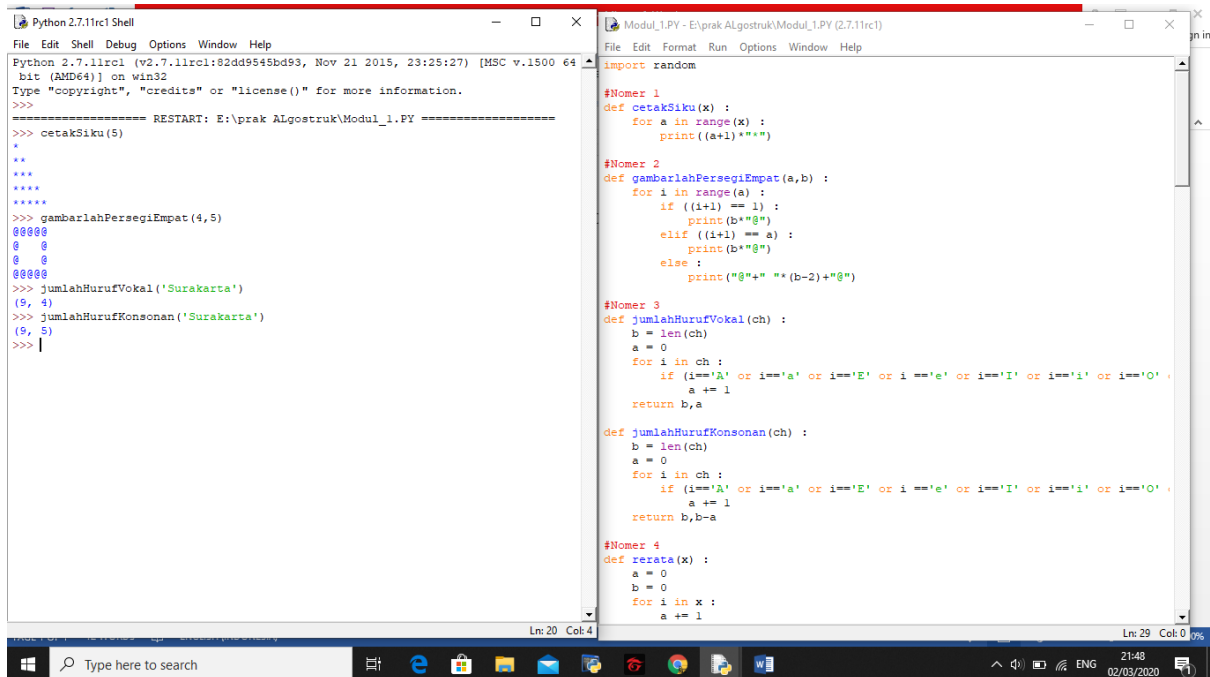


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MODUL 1

No. 1-3



```
Python 2.7.11rc1 Shell
Python 2.7.11rc1 (v2.7.11rc1:82dd9543bd93, Nov 21 2015, 23:25:27) [MSC v.1500 64
bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\prak ALgostruk\Modul_1.PY =====
>>> cetakSiku(5)
*
*
*
*
*
>>> gambarlahPersegiEmpat(4,5)
@@@@
@ @
@ @
@@@@
>>> jumlahHurufVokal('Surakarta')
(9, 4)
>>> jumlahHurufKonsonan('Surakarta')
(9, 5)
>>> |

Modul_1.PY - E:\prak ALgostruk\Modul_1.PY (2.7.11rc1)
File Edit Format Run Options Window Help
import random

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

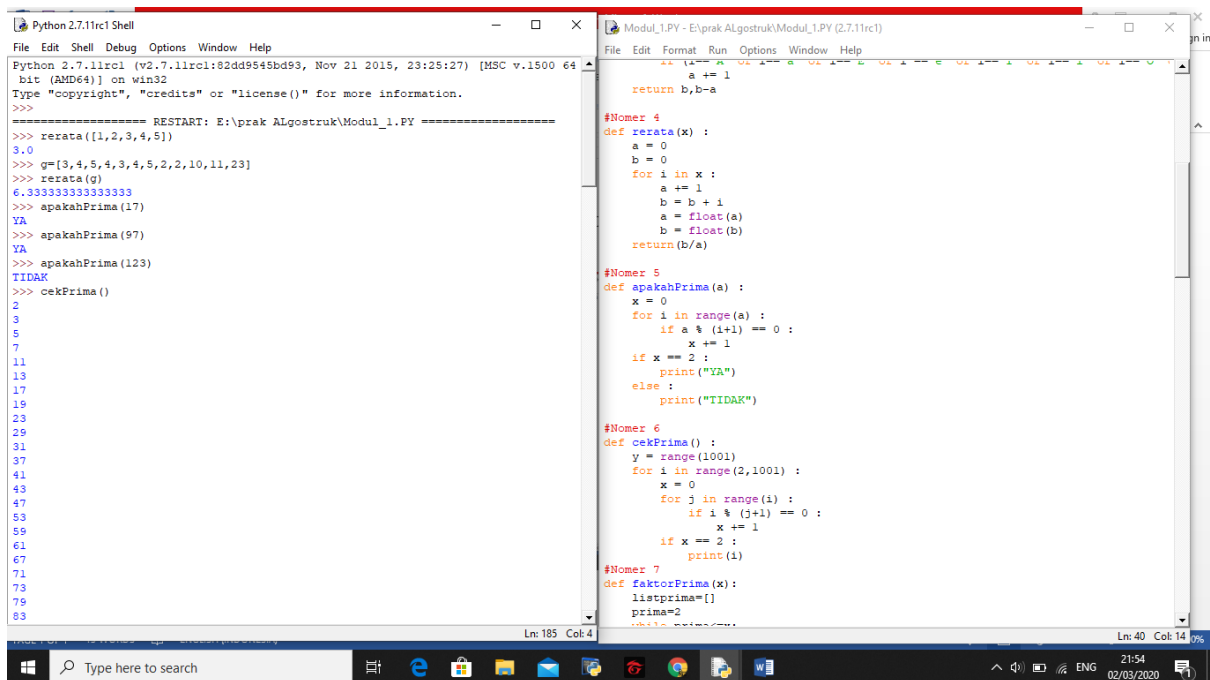
#Nomer 2
def gambarlahPersegiEmpat(a,b) :
    for i in range(a) :
        if ((i+1) == 1) :
            print(b*" @")
        elif ((i+1) == a) :
            print(b*" @")
        else :
            print("@ "+" "*(b-2)+" @")

#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') :
            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') :
            a += 1
    return b,b-a

#Nomer 4
def rerata(x) :
    a = 0
    b = 0
    for i in x :
        a += 1
```

No. 4-6



```
Python 2.7.11rc1 Shell
Python 2.7.11rc1 (v2.7.11rc1:82dd9543bd93, Nov 21 2015, 23:25:27) [MSC v.1500 64
bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\prak ALgostruk\Modul_1.PY =====
>>> rerata([1,2,3,4,5])
3.0
>>> g=[3,4,5,4,3,4,5,2,2,10,11,23]
>>> rerata(g)
6.333333333333333
>>> apakahPrima(17)
YA
>>> apakahPrima(97)
YA
>>> apakahPrima(123)
TIDAK
>>> cekPrima()
2
3
5
7
11
13
17
19
23
29
31
37
41
43
47
53
59
61
67
71
73
79
83

Modul_1.PY - E:\prak ALgostruk\Modul_1.PY (2.7.11rc1)
File Edit Format Run Options Window Help
a += 1
return b,b-a

#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)

#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")

#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)

#Nomer 7
def faktorPrima(x):
    listprima=[]
    prima=2
```

No. 7-9

The screenshot shows two windows. The left window is a Python 2.7.11rc1 Shell with the following code and output:

```
>>> faktorPrima(10)
[2, 5]
>>> faktorPrima(120)
[2, 2, 2, 3, 5]
>>> faktorPrima(19)
[19]
>>> h='do'
>>> k='Indonesia tanah air beta'
>>> apakahTerkandung(h,k)
True
>>> apakahTerkandung('pusaka',k)
False
>>> 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
```

The right window is a Python script editor showing the following code:

```
x += 1
if x == 2 :
    print(1)

#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

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

#Nomer 9
def ums() :
    for i in range(101) :
        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)

#Nomer 10
def selesaikanABC(a,b,c) :
    res = 0
    res = (b**2) - (4*a*c)
    if res == 0 :
```

No. 10-11

The screenshot shows two windows. The left window is a Python 2.7.11rc1 Shell with the following code and output:

```
Python 2.7.11rc1 (v2.7.11rc1:82dd9545bd93, Nov 21 2015, 23:25:27) [MSC v.1500 64-bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\prak Algostruk\Modul_1.PY =====
>>> selesaikanABC(1,2,3)
Determinannya negatif. Persamaan tidak mempunyai akar real.
>>> apakahKabisat()
Masukkan Tahun : 2000
True
>>> apakahKabisat()
Masukkan Tahun : 2100
False
>>>
```

The right window is a Python script editor showing the following code:

```
elif (i+1) % 3 == 0 :
    print("Python")
elif (i+1) % 5 == 0 :
    print("UMS")
else :
    print(i+1)

#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.")

#Nomer 11
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

#Nomer 12
def tebak() :
    a = random.randrange(1,101)
    b = -1

    n = 0
    print("#Determinasi tebak apakah benar")
```

No.12

```
Python 2.7.11rc1 Shell
File Edit Shell Debug Options Window Help
Python 2.7.11rc1 (v2.7.11rc1:82dd9545bd93, Nov 21 2015, 23:25:27) [MSC v.1500 64
bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\prak ALgostruk\Modul_1.PY =====
>>> tebak()
Permainan tebak angkat.
Saya menyimpan sebuah angka bulat antara 1 sampai 100. Coba tebak
Masukkan tebakan ke-1> 50
Itu terlalu besar. Coba lagi
Masukkan tebakan ke-2> 10
Itu terlalu kecil. Coba lagi
Masukkan tebakan ke-3> 12
Itu terlalu kecil. Coba lagi
Masukkan tebakan ke-4> 13
Itu terlalu kecil. Coba lagi
Masukkan tebakan ke-5> 16
Ya. Anda benar.
>>> |

Modul_1.PY - E:\prak ALgostruk\Modul_1.PY (2.7.11rc1)
File Edit Format Run Options Window Help
if thn % 4 == 0 :
    if thn % 100 == 0 :
        if thn % 400 == 0 :
            print True
        else :
            print False
    else :
        print True
    else :
        print False

#Nomer 12
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

#Nomer 13
def katakan(x):
    satuan = [' ', 'satu', 'dua', 'tiga', 'empat', 'lima', 'enam', 'tujuh', 'del
    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 "

    #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)
```

No. 13-14

```
Python 2.7.11rc1 Shell
File Edit Shell Debug Options Window Help
Python 2.7.11rc1 (v2.7.11rc1:82dd9545bd93, Nov 21 2015, 23:25:27) [MSC v.1500 64
bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: E:\prak ALgostruk\Modul_1.PY =====
>>> katakan(3125750)
'tiga juta seratus dua puluh lima ribu tujuh ratus lima puluh Bilangan Haruslah
Positif'ndan Bilangan Asli'
>>> formatRupiah(1500)
Rp 1.500
>>> formatRupiah(2560000)
Rp 2.560.000
>>> |

Modul_1.PY - E:\prak ALgostruk\Modul_1.PY (2.7.11rc1)
File Edit Format Run Options Window Help
#Nomer 13
def katakan(x):
    satuan = [' ', 'satu', 'dua', 'tiga', 'empat', 'lima', 'enam', 'tujuh', 'del
    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

#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)
```