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Modul 1

Modul1.py - C:\Users\asus\Desktop\Coolyeah\01_Algortima Struktur Data\PRAKTIKUM\pertemuan1...

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```
#No.1
def cetaksiku(x):
        str = ""
        baris = 1
        # Looping Baris
        while baris <=x:
                kolom = baris
                while kolom > 0 :
                        str = str + "*"
                        kolom = kolom - 1
                str = str + "\n"
                baris = baris + 1
        print (str)
cetaksiku(5)

#No.2
def persegipanjantg(x,y):
        for i in range(x):
                if i == 0 or i == x - 1:
                     print ("@" * y)
                else :
                     print ("@"+" "*(y-2)+"@")
persegipanjantg(4,5)

#No.3a
def vokal(x):

        hvokal=['a','i','u','e','o','A','I','U','E','O']
        hitung=0
        b = len(x)
        for i in x:
                if i in hvokal:
                        hitung+=1
        return (b,hitung)
```

```
#No.3b
def konsonan(x):

        hvokal=['a','i','u','e','o','A','I','U','E','O']
        hitung=0
        b = len(x)
        for i in x:
                if i not in hvokal:
                        hitung+=1
        return (b,hitung)
#No.4
def rata(x):
    jmlX = 0
    for i in x:
        jmlX += i
    hasil = jmlX/len(x)
    print(hasil)
rata([1,2,3,4,4,3,5])

#No.5
from math import sqrt as sq
def apakahPrima(n):
    n = int(n)
    assert n>=0
    primaKecil = [2,3,5,7,11]
    bukanPrKecil = [0,1,4,6,8,9,10]
    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:
                print (n,"bukan bilangan prima")
                break
            else:
                print (n,"bilangan prima")
```

```
print(apakahPrima(17))
print(apakahPrima(97))
print(apakahPrima(123))
```

```
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:06:47) [MSC v.1914 32 bit (Int
el)] on win32
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>>>
 RESTART: C:\Users\asus\Desktop\Coolyeah\01_Algortima Struktur Data\PRAKTIKUM\p
ertemuan1\Modul1.py
*
**
***
****
*****

@@@@@
@   @
@   @
@@@@@
3.142857142857143
17 bilangan prima
17 bilangan prima
17 bilangan prima
None
97 bilangan prima
97 bilangan prima
97 bilangan prima
97 bilangan prima
97 bilangan prima
97 bilangan prima
97 bilangan prima
97 bilangan prima
None
123 bilangan prima
123 bukan bilangan prima
None
>>>
```

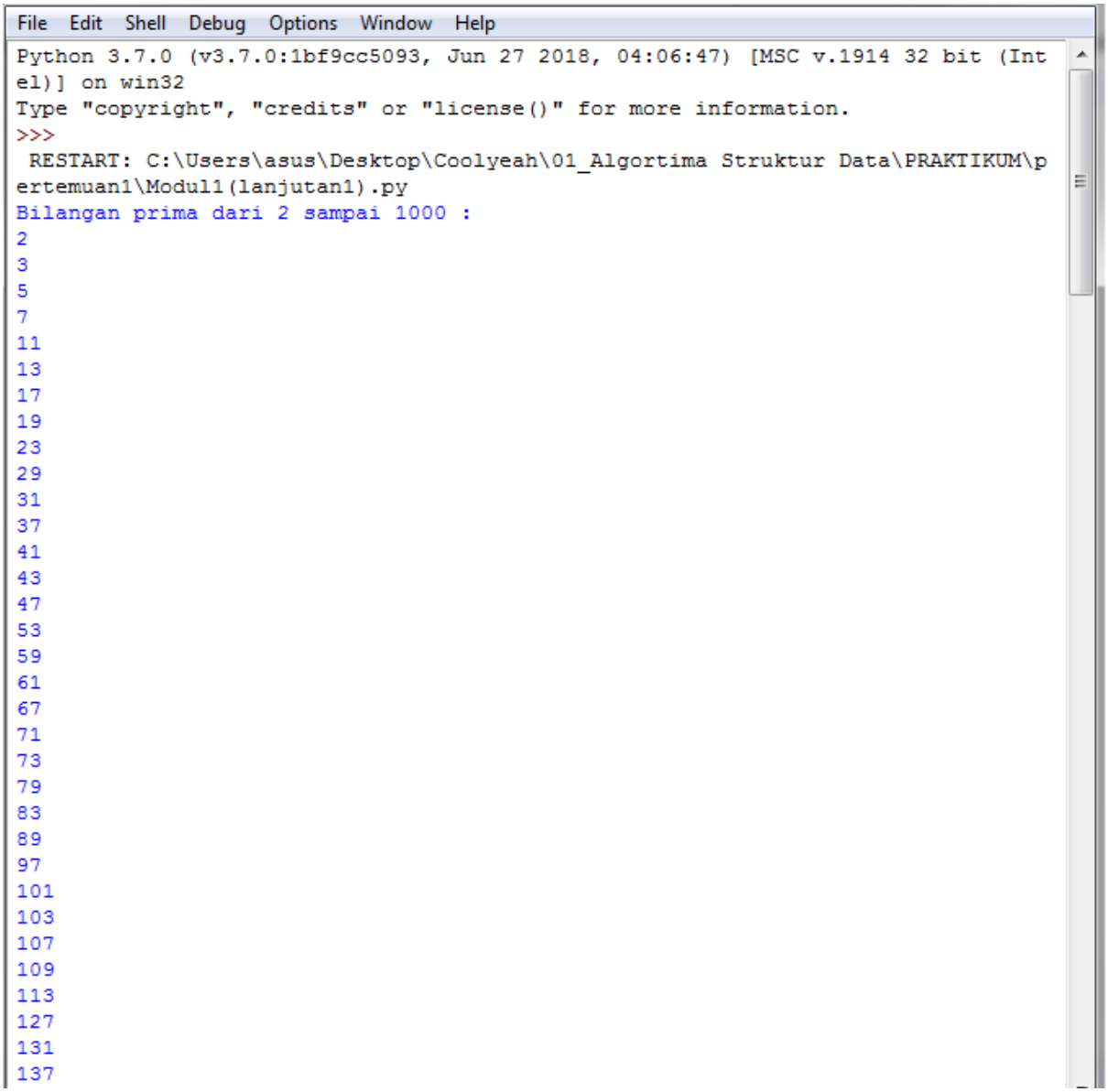
```
#No.6
lower = 2
upper = 1000
print("Bilangan prima dari",lower,"sampai",upper,":")
for num in range(lower,upper + 1):
    if num > 1:
        for i in range(2,num):
            if (num % i) == 0:
                break
        else:
            print(num)

#No.7
def faktorPrima(x):
    a = []
    b = []
    hasil = 0
    bil = x
    prima =True
    for i in range(2,x):
        prima = True
        for u in range(2, i):
            if i % u == 0:
               prima = False
        if prima:
            a.append(i)
    idx = 0
    while bil > 1:
        try:
            if (bil%a[idx]) == 0:
                hasil = bil/a[idx]
                bil = hasil
                b.append(a[idx])
            else:
                idx = idx + 1
        except IndexError:
            break
    print (b)
```

```
#No.8
def apakahTerkandung(x,y):
    a = True
    for i in range(len(y)):
        if x in y:
            a = True
        else:
            a = False
    return a

#No.9
def mencetak(a):
    for i in range(a):
        if(i<=0):
            pass
        elif(i%3==0 and i%5==0):
            print("Python UMS")
        elif(i%3==0):
            print("Python")
        elif(i%5==0):
            print("UMS")
        else:
            print(i)

#No.10
from math import sqrt as detr
def selesaikanABC(a,b,c):
    a = float(a)
    b = float(b)
    c = float(c)
    D = float(b*2 - 4*a*c)
    if(D<0):
        hasil = "Determinan negatif, persamaan tidak mempunyai akar real"
        return hasil
    else:
        x1 = (-b+detr(D))/(2*a)
        x2 = (-b+detr(D))/(2*a)
        return hasil
```


File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:06:47) [MSC v.1914 32 bit (Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
RESTART: C:\Users\asus\Desktop\Coolyeah\01_Algortima Struktur Data\PRAKTIKUM\pertemuan1\Modul1(lanjutan1).py
Bilangan prima dari 2 sampai 1000 :
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

```
>>> faktorPrima(20)
[2, 2, 5]
>>> h = 'do'
>>> k = 'Indonesia Tanah Air'
>>> apakahTerkandung(h,k)
True
>>> apakahTerkandung('pusaka',k)
False
>>> mencetak(10)
1
2
Python
4
UMS
Python
7
8
Python
>>> selesaikanABC(1,2,3)
'Determinan negatif, persamaan tidak mempunyai akar real'
>>>
```

Ln: 168 Col: 0

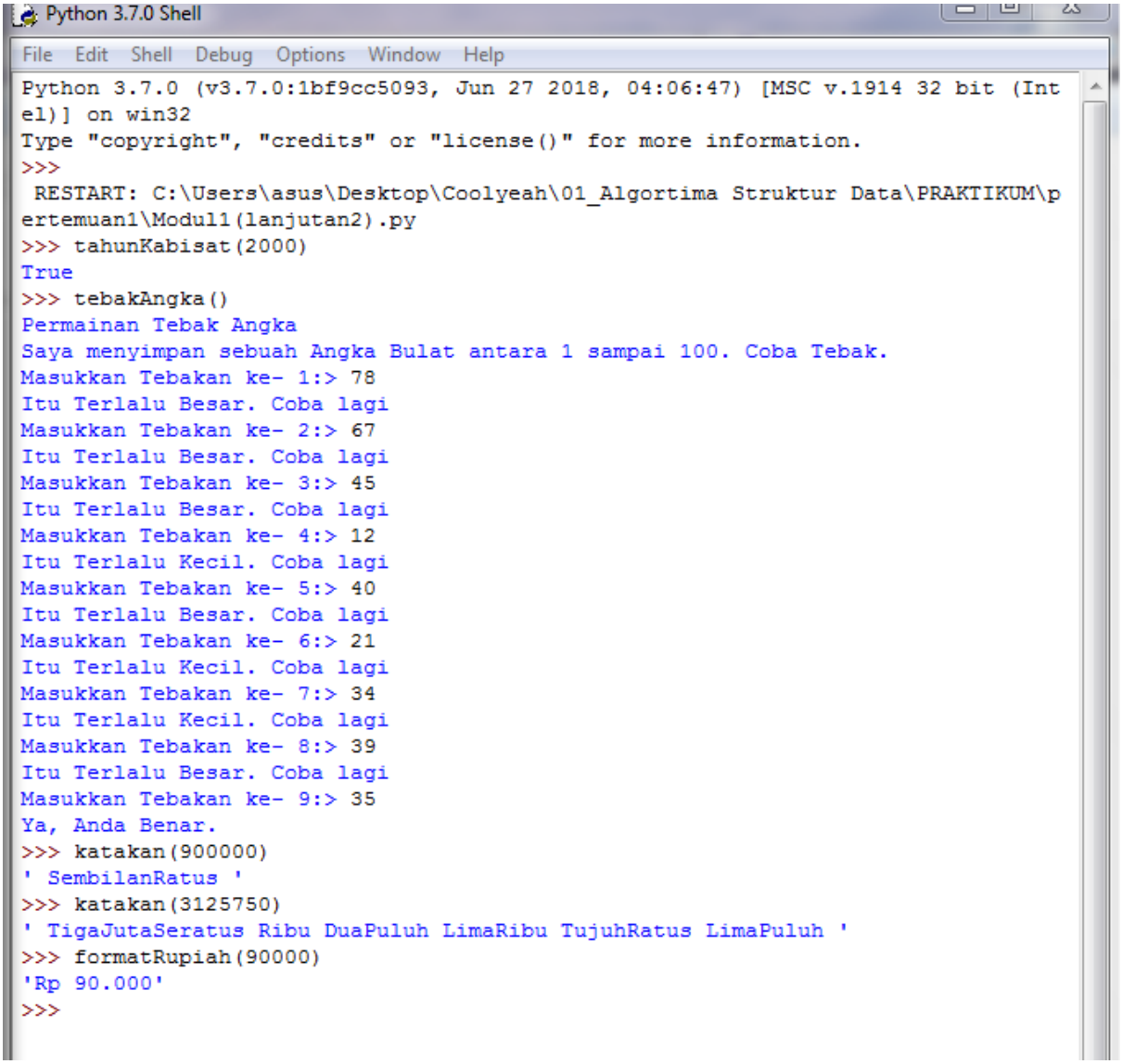
```
#No.11
def tahunKabisat(tahun):
    hasil = False
    if(tahun%4==0 and tahun%100!=0 and tahun%400!=0):
        hasil = True
    elif(tahun%100==0 and tahun%400!=0):
        hasil = False
    elif(tahun%400==0):
        hasil = True
    else:
        hasil = False
    return hasil

#No.12
import random
def tebakAngka():
    a = random.randrange(1,101,1)
    b = -1
    n = 0
    print("Permainan Tebak Angka")
    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
```

```python
#No.13
def katakan(bilangan):
    angka = ["","Satu","Dua","Tiga","Empat","Lima",
             "Enam","Tujuh","Delapan","Sembilan","Sepuluh","Sebelas"]
    Hasil = " "
    n = int(bilangan)
    if n>=0 and n<=11:
        Hasil = Hasil+angka[n]
    elif n<2:
        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<10000:
        Hasil = katakan(n/1000) + "Ribu" + katakan(n%1000)
    elif n<20000:
        Hasil = "Sepuluh Ribu" + katakan(n-10000)
    elif n<100000:
        Hasil = katakan(n/10000) + "Puluh" + katakan(n%10000)
    elif n<200000:
        Hasil = "Seratus Ribu" + katakan(n-100000)
    elif n<1000000:
        Hasil = katakan(n/100000) + "Ratus" + katakan(n%100000)
    elif n<2000000:
        Hasil = "Satu Juta" + katakan(n-1000000)
    elif n<10000000:
        Hasil = katakan(n/1000000) + "Juta" + katakan(n%1000000)
    elif n==100000000:
        Haail = "Satu Milyar" + katakan(n%10000000)
    else:
        Hasil = "Angka Hanya Sampai Satu Milyar"
    return Hasil
```

```python
#No.14
def formatRupiah(bilangan):
    a = str(bilangan)
    if len(a)<=3:
        return "Rp "+a
    else:
        y = a[-3:]
        z = a[:-3]
        return formatRupiah(z)+"."+y
        print(("Rp ")+formatRupiah(z)+"."+y)
```

Ln: 16 Col: 0


Python 3.7.0 Shell
File Edit Shell Debug Options Window Help
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:06:47) [MSC v.1914 32 bit (Intel)] on win32
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>>>
RESTART: C:\Users\asus\Desktop\Coolyeah\01_Algortima Struktur Data\PRAKTIKUM\pertemuan1\Modul1(lanjutan2).py
>>> tahunKabisat(2000)
True
>>> tebakAngka()
Permainan Tebak Angka
Saya menyimpan sebuah Angka Bulat antara 1 sampai 100. Coba Tebak.
Masukkan Tebakan ke- 1:> 78
Itu Terlalu Besar. Coba lagi
Masukkan Tebakan ke- 2:> 67
Itu Terlalu Besar. Coba lagi
Masukkan Tebakan ke- 3:> 45
Itu Terlalu Besar. Coba lagi
Masukkan Tebakan ke- 4:> 12
Itu Terlalu Kecil. Coba lagi
Masukkan Tebakan ke- 5:> 40
Itu Terlalu Besar. Coba lagi
Masukkan Tebakan ke- 6:> 21
Itu Terlalu Kecil. Coba lagi
Masukkan Tebakan ke- 7:> 34
Itu Terlalu Kecil. Coba lagi
Masukkan Tebakan ke- 8:> 39
Itu Terlalu Besar. Coba lagi
Masukkan Tebakan ke- 9:> 35
Ya, Anda Benar.
>>> katakan(900000)
' SembilanRatus '
>>> katakan(3125750)
' TigaJutaSeratus Ribu DuaPuluh LimaRibu TujuhRatus LimaPuluh '
>>> formatRupiah(90000)
'Rp 90.000'
>>>