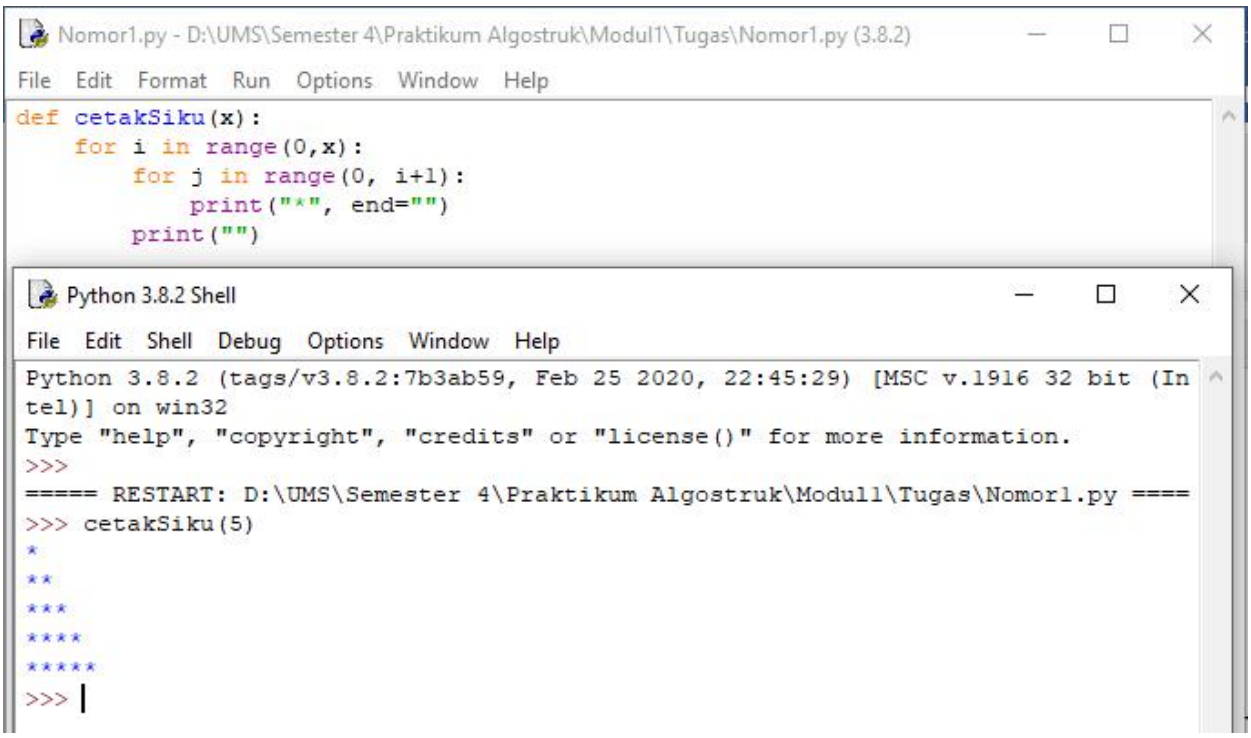
NAMA : BRIAN ADITYA HERMANSYAH

NIM : L200180116

KELAS : E

MODUL 1



Nomor2.py - D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\Nomor2.py (3.8.2)

File Edit Format Run Options Window Help

```
def gambarlahPersegiEmpat(x,y):
    for i in range(x):
        if i==0 or i== x-1:
            print ("@"*y)
        else:
            print("@"+" "*(y-2)+"@")
```

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 (In
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\Nomor2.py ====
>>> gambarlahPersegiEmpat(4,5)
@@@@@
@   @
@   @
@@@@@
>>>
```

Nomor3.py - D:\UMS\Semester

File Edit Format Run Optior

```
def vokal(b):
    a="aiueoAIUEO"
    x=0
    for i in b:
        if i in a:
            x+=1
    print(len(b),x)

def konsonan(b):
    a="aiueoAIUEO"
    x=0
    for i in b:
        if i not in a:
            x+=1
    print(len(b),x)
```

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.1
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more inform
>>>
===== RESTART: D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\
>>> vokal("Surakarta")
9 4

>>> konsonan("Surakarta")
9 5
>>>
```

Nomor4.py - D:\UMS\Semester 4\

File Edit Format Run Options

```
def rerata(b):
    x = sum(b)/len(b)
    print(x)
```

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)
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
===== RESTART: D:\UMS\Semester 4\Praktikum Algostruk\Modul1
>>> 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
>>>
```

Nomor5.py - D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\

File Edit Format Run Options Window Help

```
from math import sqrt as sq
def apakahPrima(n):
    n = int(n)
    assert n >= 0
    primaKecil = [2,3,5,7,11]
    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," adalah bilangan prima")
```

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
tel)] on win32
Type "help", "copyright", "credits" or "license()" for m
>>>
===== RESTART: D:\UMS\Semester 4\Praktikum Algostruk\Mod
>>> apakahPrima(17)
17  adalah bilangan prima
>>> apakahPrima(97)
97  adalah bilangan prima
>>> apakahPrima(123)
123  bukan bilangan prima
>>>
```

Nomor6.py - D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\Nomor6.py (

File Edit Format Run Options Window Help

```
lower = 2
upper = 1000
print("Bilangan prima antara ",lower," dan ",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)
```

Python 3.8.2 Shell

File Edit Shell Debug Options Window Help

```
Bilangan prima antara  2  dan  1000  :
2
3
5
7
11
13
17
19
23
29
31
37
41
43
47
53
59
61
```

Nomor7.py - D:\UMS\Semester 4\P

File Edit Format Run Options

```
def faktorPrima(x):
    a = []
    b = 2
    while b <= x:
        if x%b == 0:
            x /= b
            a.append(b)
        else:
            b+=1
    print(a)
```

Python 3.8.2 Shell

File Edit Shell Debug Options Window Help

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:4
tel)] on win32
Type "help", "copyright", "credits" or "license()" f
>>>
===== RESTART: D:\UMS\Semester 4\Praktikum Algostruk
>>> faktorPrima(10)
[2, 5]
>>> faktorPrima(120)
[2, 2, 2, 3, 5]
>>> faktorPrima(19)
[19]
>>>
```

Nomor8.py - D:\UMS\Semester 4\Praktik

File Edit Format Run Options Wind

```
def apakahTerkandung(a,b):
    if a in b:
        print("True")
    else:
        print("False")
```

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
tel)] on win32
Type "help", "copyright", "credits" or "license()" fo
>>>
===== RESTART: D:\UMS\Semester 4\Praktikum Algostruk\
>>> h = "do"
>>> k = "Indonesia tanah air beta"
>>> apakahTerkandung(h,k)
True
>>> apakahTerkandung('pusaka',k)
False
>>>
```

Nomor9.py - D:\UMS\Semester 4\Praktikum Algo

File Edit Format Run Options Window He

```
for i in range(1,100):
    if ((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)
```

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 (In
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\Nomor9.py ====
1
2
Python
4
UMS
Python
7
8
Python
UMS
11
Python
13
14
Python UMS
16
17
Python
19
UMS
Python
```

Nomor10.py - D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\Nomor10.py (3.8.2)

File Edit Format Run Options Window Help

```
from math import sqrt as s
def selesaikanABC(a,b,c):
    a=float(a)
    b=float(b)
    c=float(c)

    D=(b**2)-(4*a*c)
    if D>0:
        x1=(-b+s(D))/(2*a)
        x2=(-b-s(D))/(2*a)
        hasil=(x1,x2)
        print (hasil)
    else:
        print ("Determinan negatif. Persamaan tidak mempunyai akar real")
```

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 (In
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
==== RESTART: D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\Nomor10.py ====
>>> selesaikanABC(1,2,3)
Determinan negatif. Persamaan tidak mempunyai akar real
>>>
```

Nomor11.py - D:\UMS\Semester 4\Praktikum Algostruk\Modul1\T

File Edit Format Run Options Window Help

```
def apakahKabisat(x):
    if (x % 4) == 0:
        if (x % 100) == 0:
            if (x % 400) == 0:
                print ("Tahun Kabisat")
            else:
                print ("Bukan Tahun Kabisat")
        else:
            print ("Tahun Kabisat")
    else:
        print ("Bukan Tahun Kabisat")
```

Python 3.8.2 Shell

File Edit Shell Debug Options Window Help

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:4
tel)] on win32
Type "help", "copyright", "credits" or "license()" f
>>>
==== RESTART: D:\UMS\Semester 4\Praktikum Algostruk\
>>> apakahKabisat(2018)
Bukan Tahun Kabisat
>>> apakahKabisat(2020)
Tahun Kabisat
>>>
```

Nomor12.py - D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\Nomor12.py (3.8.2)

File Edit Format Run Options Window Help

```
from random import*

x = randint(1, 100)
print("Permainan tebak angka.")
print("Saya menyimpan sebuah angka bulat antara 1 sampai 100. Coba tebak")
while True :
    a = int(input("Masukan tebakan:>"))
    if a < x:
        print("tebakan anda terlalu kecil. Coba lagi")
    elif a > x:
        print("tebakan anda terlalu besar. Coba lagi")
    else :
        print("tebakan anda benar")
        break
```

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.19
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more informa
>>>
==== RESTART: D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\No
Permainan tebak angka.
Saya menyimpan sebuah angka bulat antara 1 sampai 100. Coba tebak
Masukan tebakan:>45
tebakan anda terlalu kecil. Coba lagi
Masukan tebakan:>56
tebakan anda terlalu kecil. Coba lagi
Masukan tebakan:>78
tebakan anda terlalu besar. Coba lagi
Masukan tebakan:>67
tebakan anda terlalu besar. Coba lagi
Masukan tebakan:>58
tebakan anda terlalu kecil. Coba lagi
Masukan tebakan:>63
tebakan anda terlalu besar. Coba lagi
Masukan tebakan:>62
tebakan anda terlalu besar. Coba lagi
Masukan tebakan:>61
tebakan anda terlalu besar. Coba lagi
Masukan tebakan:>60
tebakan anda terlalu besar. Coba lagi
Masukan tebakan:>59
tebakan anda benar
>>>
```

Nomor13.py - D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\Nomor13.py (3.8.2)

File Edit Format Run Options Window Help

```
def katakan(a):
    angka = ("","Satu","Dua","Tiga","Empat","Lima","Enam","Tujuh","Delapan","Sembilan","Sepuluh","Sebelas")
    hasil = ""
    n = int(a)
    if n >= 0 and n <= 11 :
        hasil = hasil+angka[n]
    elif n < 20 :
        hasil = angka[(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)
    return hasil
```

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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.
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more infor
>>>
==== RESTART: D:\UMS\Semester 4\Praktikum Algostruk\Modul1\Tugas\
>>> katakan(3125750)
'Tiga Juta Seratus Dua Puluh Lima Ribu Tujuh Ratus Lima Puluh '
>>>
```

Nomor14.py - D:\UMS\Semester 4\Praktikum Algostruk\Modul

File Edit Format Run Options Window Help

```
def formatRupiah(x):
    a = str(x)
    b = ""
    i = -1
    while i >= -len(a):
        if ((i+1)%3 == 0 and (i+1) != 0):
            b = "." + b
        b = a[i] + b
        i-=1
    return "Rp "+b
```

Python 3.8.2 Shell

File Edit Shell Debug Options Window Help

```
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25
tel)] on win32
Type "help", "copyright", "credits" or "li
>>>
==== RESTART: D:\UMS\Semester 4\Praktikum
>>> formatRupiah(2560000)
'Rp 2.560.000'
>>>
```