

Nama : Annas Fagiat

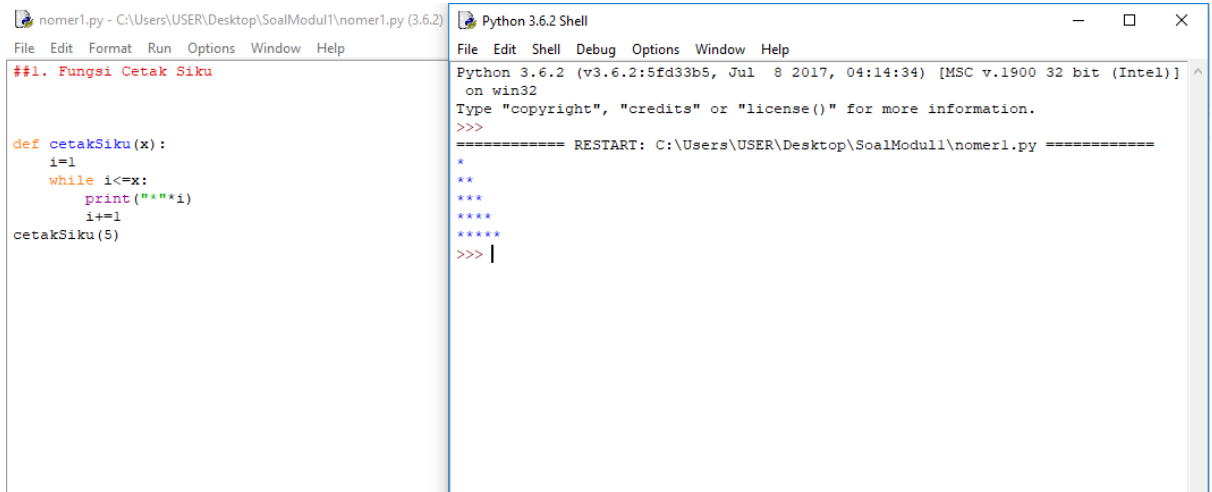
Nim : L200170163

Kelas : D

Tugas Modul 1

Praktikum Algoritma dan Struktur Data

1. Fungsi Cetak Siku



```
nomer1.py - C:\Users\USER\Desktop\SoalModul1\nomer1.py (3.6.2)
File Edit Format Run Options Window Help

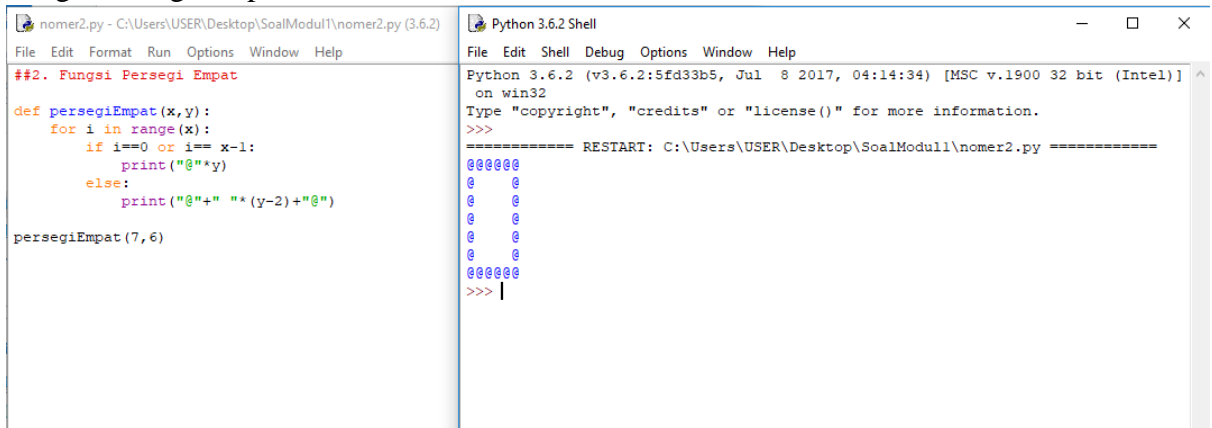
##1. Fungsi Cetak Siku

def cetakSiku(x):
    i=1
    while i<=x:
        print(" "*i)
        i+=1
cetakSiku(5)

Python 3.6.2 Shell
File Edit Shell Debug Options Window Help

Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer1.py =====
*
**
***
****
*****
>>> |
```

2. Fungsi Persegi Empat



```
nomer2.py - C:\Users\USER\Desktop\SoalModul1\nomer2.py (3.6.2)
File Edit Format Run Options Window Help

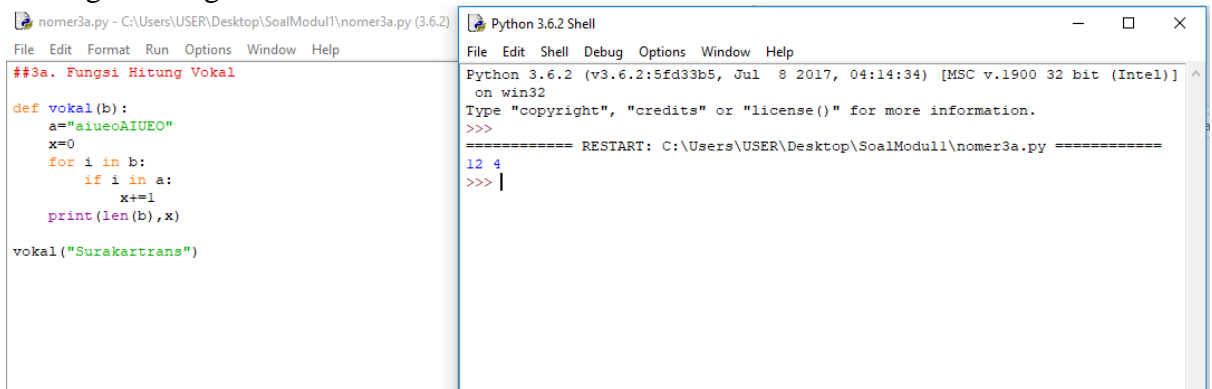
##2. Fungsi Persegi Empat

def persegiEmpat(x,y):
    for i in range(x):
        if i==0 or i== x-1:
            print("@"*y)
        else:
            print("@"+" "*(y-2)+"@")
persegiEmpat(7,6)

Python 3.6.2 Shell
File Edit Shell Debug Options Window Help

Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer2.py =====
@@@@@
@  @
@  @
@  @
@  @
@  @
@@@@@
>>> |
```

3. a. Fungsi Hitung Vokal



```
nomer3a.py - C:\Users\USER\Desktop\SoalModul1\nomer3a.py (3.6.2)
File Edit Format Run Options Window Help

##3a. Fungsi Hitung Vokal

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

Python 3.6.2 Shell
File Edit Shell Debug Options Window Help

Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer3a.py =====
12 4
>>> |
```

b. Fungsi Hitung Konsonan

<pre>nomer3b.py - C:\Users\USER\Desktop\SoalModul1\nomer3b.py (3.6.2) File Edit Format Run Options Window Help ##3b. Fungsi Hitung Konsonan def vokal(b): a="aiueoAIUEO" x=0 for i in b: if i not in a: x+=1 print(len(b),x) vokal("Surakartrans")</pre>	<pre>Python 3.6.2 Shell File Edit Shell Debug Options Window Help Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)] on win32 Type "copyright", "credits" or "license()" for more information. >>> ===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer3b.py ===== 12 8 >>> </pre>
---	--

4. Fungsi Hitung Rerata Array

<pre>nomer4.py - C:\Users\USER\Desktop\SoalModul1\nomer4.py (3.6.2) File Edit Format Run Options Window Help ##4. Fungsi Hitung Rerata Array def rerata(b): x=sum(b)/len(b) print(x) x=[3,4,5,4,3,4,5,2,2,10,11,23] rerata(x)</pre>	<pre>Python 3.6.2 Shell File Edit Shell Debug Options Window Help Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)] on win32 Type "copyright", "credits" or "license()" for more information. >>> ===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer4.py ===== 6.333333333333333 >>> </pre>
--	--

5. Fungsi Menentukan Bilangan Prima

<pre>nomer5.py - C:\Users\USER\Desktop\SoalModul1\nomer5.py (3.6.2) File Edit Format Run Options Window Help ##5. Fungsi Menentukan Bilangan Prima from math import sqrt as sq def apakahPrima(n): n = int(n) assert n>=0 primak = [2,3,5,7,11] bukanprima = [0,1,4,6,8,9,10] if n in primak: return True elif n in bukanprima: 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") apakahPrima(17) apakahPrima(97) apakahPrima(123)</pre>	<pre>Python 3.6.2 Shell File Edit Shell Debug Options Window Help Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)] on win32 Type "copyright", "credits" or "license()" for more information. >>> ===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer5.py ===== 17 adalah bilangan prima 97 adalah bilangan prima 123 bukan bilangan prima >>> </pre>
---	---

6. Fungsi Cetak Bilangan Prima

```
nomer6.py - C:\Users\USER\Desktop\SoalModul1\nomer6.py (3.6.2)
File Edit Format Run Options Window Help
##6. Fungsi Cetak Bilangan Prima

for i in range (2,1000):
    d=2
    while i%d!=0:
        if d==(i-1):
            print (i," ",d)
        d=d+1
    print("Done")

Python 3.6.2 Shell
File Edit Shell Debug Options Window Help
739 738
743 742
751 750
757 756
761 760
769 768
773 772
787 786
797 796
809 808
811 810
821 820
823 822
827 826
829 828
839 838
853 852
857 856
859 858
863 862
877 876
881 880
883 882
887 886
907 906
911 910
919 918
929 928
937 936
941 940
947 946
953 952
967 966
971 970
977 976
983 982
991 990
997 996
Done.
```

7. Fungsi Penentu Faktorisasi Prima

```
nomer7.py - C:\Users\USER\Desktop\SoalModul1\nomer7.py (3.6.2)
File Edit Format Run Options Window Help
##7. Fungsi Penentu Faktorisasi Prima

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

faktorPrima(120)
faktorPrima(19)
faktorPrima(10)

Python 3.6.2 Shell
File Edit Shell Debug Options Window Help
Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer7.py =====
[2, 2, 2, 3, 5]
[19]
[2, 5]
>>> |
```

8. Fungsi Cetak Huruf Terkandung

```
nomer8.py - C:\Users\USER\Desktop\SoalModul1\nomer8.py (3.6.2)
File Edit Format Run Options Window Help
##8. Fungsi Cetak Huruf yang terkandung

def apakahTerkandung(x,y):
    if x in y:
        print("True")
    else:
        print("False")

x="yo"
y="he tayo dia bis kecil"

apakahTerkandung(x,y)

Python 3.6.2 Shell
File Edit Shell Debug Options Window Help
Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer8.py =====
True
>>> |
```

9. Fungsi Cetak Kalimat Kelipatan Tertentu

```
nomer9.py - C:\Users\USER\Desktop\SoalModul1\nomer9.py (3.6.2)
File Edit Format Run Options Window Help

##9. Fungsi Cetak Kalimat pada Kelipatan tertentu

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 3.6.2 Shell
File Edit Shell Debug Options Window Help

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
>>>
```

10. Fungsi Penghitung Determinan Kurang dari Nol

```
nomer10.py - C:\Users\USER\Desktop\SoalModul1\nomer10.py (3.6.2)
File Edit Format Run Options Window Help

##10. Fungsi Penghitung Determinan kurang dari Nol

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")

selesaikanABC(1,2,3)
selesaikanABC(10,5,6)

Python 3.6.2 Shell
File Edit Shell Debug Options Window Help

Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer10.py =====
Determinan negatif. Persamaan tidak mempunyai akar real
>>>
===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer10.py =====
Determinan negatif. Persamaan tidak mempunyai akar real
Determinan negatif. Persamaan tidak mempunyai akar real
>>> |
```

11. Fungsi Penentu Kabisat

```
nomer11.py - C:\Users\USER\Desktop\SoalModul1\nomer11.py (3.6.2)
File Edit Format Run Options Window Help

##11. Fungsi Menentukan Tahun Kabisat

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")

apakahKabisat(2400)

Python 3.6.2 Shell
File Edit Shell Debug Options Window Help

Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer11.py =====
Tahun Kabisat
>>> |
```

12. Fungsi Tebak Angka

```
nomer12.py - C:\Users\USER\Desktop\SoalModul1\nomer12.py (3.6.2)
File Edit Format Run Options Window Help

##12. Fungsi Tebak Angka

from random import *

x = randint(1, 100)
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 3.6.2 Shell
File Edit Shell Debug Options Window Help

Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer12.py =====
saya menyimpan sebuah angka bulat antara 1 sampai 100. Coba tebak
masukan tebakan:>20
tebakan anda terlalu kecil. Coba lagi
masukan tebakan:>89
tebakan anda terlalu kecil. Coba lagi
masukan tebakan:>90
tebakan anda terlalu kecil. Coba lagi
masukan tebakan:>99
tebakan anda terlalu besar. Coba lagi
masukan tebakan:>88
tebakan anda terlalu kecil. Coba lagi
masukan tebakan:>95
tebakan anda benar
>>> |
```

13. Fungsi Katakan Angka

```
nomer13.py - C:\Users\USER\Desktop\SoalModul1\nomer13.py (3.6.2)
File Edit Format Run Options Window Help

##13. Fungsi Katakan Angka

def katakan(a):
    angka=("","satu","dua","tiga","empat","lima","enam","tujuh","delapan","sembil")
    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
print(katakan(3125750))

Python 3.6.2 Shell
File Edit Shell Debug Options Window Help

Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer13.py =====
tiga juta seratus dua puluh lima ribu tujuh ratus lima puluh
>>> |
```

14. Fungsi Input Angka Format Rupiah

```
nomer14.py - C:\Users\USER\Desktop\SoalModul1\nomer14.py (3.6.2)
File Edit Format Run Options Window Help

##14. Fungsi Menerima Input Angka dan menjadikan format Rp.

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
print(formatRupiah(1500))
print(formatRupiah(2560000))

Python 3.6.2 Shell
File Edit Shell Debug Options Window Help

Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:14:34) [MSC v.1900 32 bit (Intel)]
on win32
Type "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\USER\Desktop\SoalModul1\nomer14.py =====
Rp 1.500
Rp 2.560.000
>>> |
```