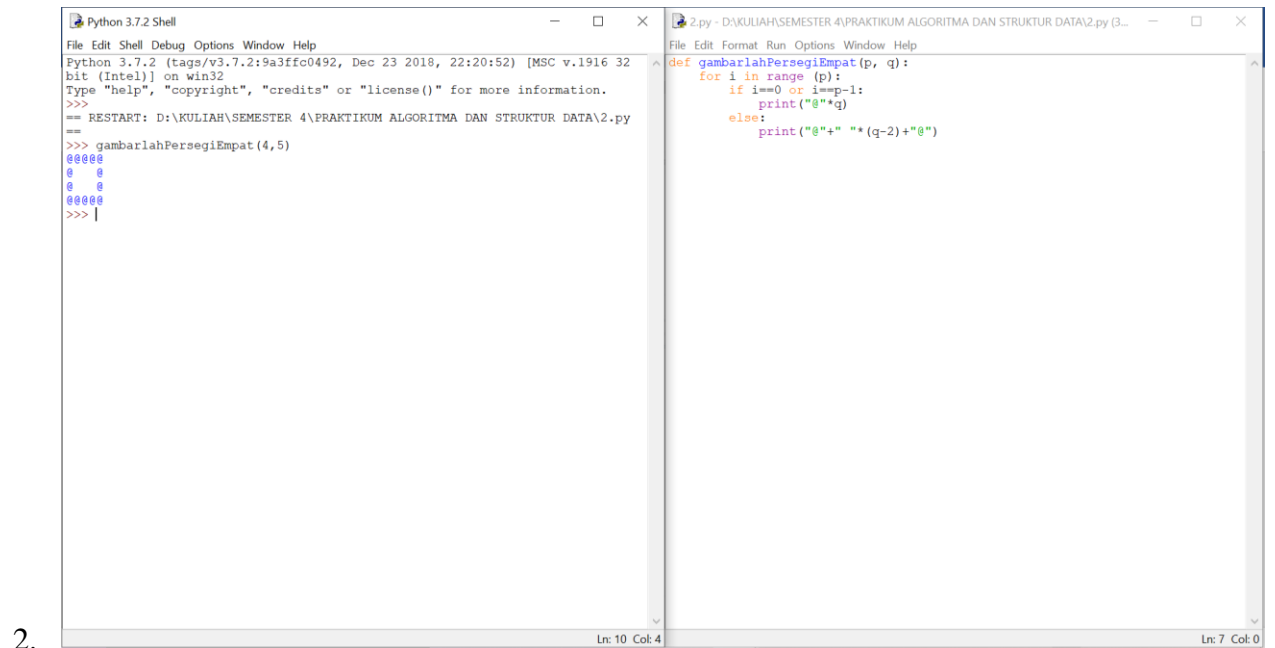
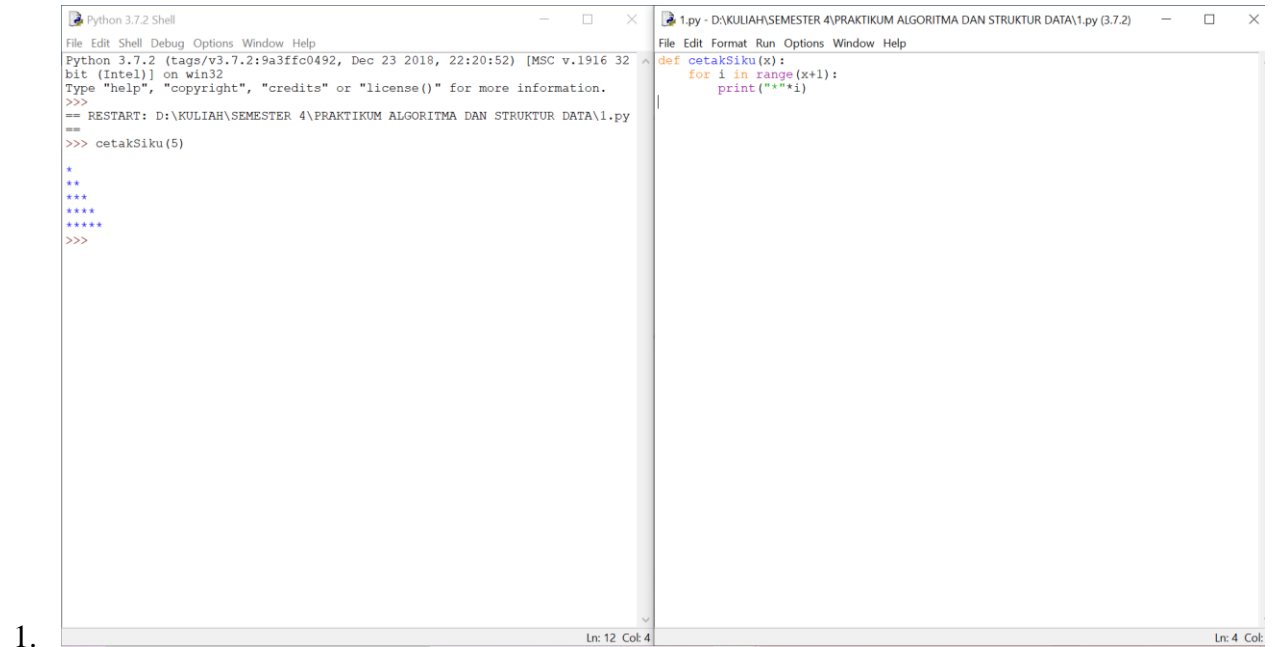


Kelas : A

MODUL 1. Tinjauan Ulang Python



3.

The screenshot shows two windows. The left window is a Python 3.7.2 Shell with the following code and output:

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32
bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\3.py
==
>>> k=jumlahHurufVokal("Surakarta")
>>> k
(9, 4)
>>> k=jumlahHurufKonsonan("Surakarta")
>>> k
(9, 5)
>>> |
```

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

```
3.py - D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\3.py (3...
File Edit Format Run Options Window Help
def jumlahHurufVokal(huruf):
    jumlah = 0
    vokal = ["a","i","u","e","o","A","I","E","O","U"]
    for i in huruf:
        if i in vokal:
            jumlah+=1
    return len(huruf), jumlah

def jumlahHurufKonsonan(huruf):
    jumlah = 0
    konsonan = ["a","i","u","e","o","A","I","E","O","U"]
    for i in huruf:
        if i in konsonan:
            jumlah+=1
    return len(huruf), len(huruf)-jumlah
```

4.

The screenshot shows two windows. The left window is a Python 3.7.2 Shell with the following code and output:

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916
32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\4
.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
>>> |
```

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

```
4.py - D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\4.py (3.7.2)
File Edit Format Run Options Window Help
def rerata(b):
    jumlah = 0
    for i in b:
        jumlah += i
    return (jumlah/len(b))
```

5.

The screenshot shows two windows. The left window is a Python 3.7.2 Shell with the following code:

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32
bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\5.py
==
>>> apakahPrima(17)
True
>>> apakahPrima(97)
True
>>> apakahPrima(123)
False
>>> |
```

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

```
5.py - D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\5.py (3...
File Edit Format Run Options Window Help
from math import sqrt as sq
def apakahPrima(n):
    n = int(n)
    assert n>=0 #hanya menerima bilangan non-negatif
    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:
                return False
        return True
```

6.

The screenshot shows two windows. The left window is a Python 3.7.2 Shell with the following code:

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
961 True
962 False
963 True
964 False
965 True
966 False
967 True
968 False
969 True
970 False
971 True
972 False
973 True
974 False
975 True
976 False
977 True
978 False
979 True
980 False
981 True
982 False
983 True
984 False
985 True
986 False
987 True
988 False
989 True
990 False
991 True
992 False
993 True
994 False
995 True
996 False
997 True
998 False
999 True
1000 False
>>>
```

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

```
6.py - D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\6.py (3.7.2)
File Edit Format Run Options Window Help
from math import sqrt as sq
def apakahPrima(n):
    n = int(n)
    assert n>=0 #hanya menerima bilangan non-negatif
    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:
                return False
            break
        else:
            return True
for i in range(2,1001):
    print(str(i)+" "+str(apakahPrima(i)))
```

7.

The screenshot shows a Python 3.7.2 IDE with two windows. The left window is the Python Shell, and the right window is a script named 7.py.

```

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32
bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\7.py
==
>>> faktorPrima(10)
[2, 5]
>>> faktorPrima(120)
[2, 2, 2, 3, 5]
>>> faktorPrima(19)
[19]
>>> |

7.py - D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\7.py (3.7.2)
File Edit Format Run Options Window Help
def faktorPrima(x):
    bilangan = []
    loop = 2
    while loop <= x:
        if x % loop == 0:
            x /= loop
            bilangan.append(loop)
        else:
            loop += 1
    return bilangan

```

8.

The screenshot shows a Python 3.7.2 IDE with two windows. The left window is the Python Shell, and the right window is a script named 8.py.

```

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 3
2 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\8.p
y ==
>>> h = "do"
>>> k = "Indonesia tanah air beta"
>>> apakahTerkandung(h, k)
True
>>> apakahTerkandung("pusaka", k)
False
>>> |

8.py - D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\8.py (3.7.2)
File Edit Format Run Options Window Help
def apakahTerkandung(a,b):
    return a in b

```

The image displays two side-by-side windows from a Python IDE. The left window, titled "Python 3.7.2 Shell", shows the output of a program, listing 100 lines that alternate between "Python" and "UMS". The right window, titled "9.py - D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\9.py (3...", contains a Python script that iterates from 1 to 100. It uses conditional logic to print "Python UMS" for numbers divisible by both 3 and 5, "Python" for numbers divisible by 3, and "UMS" for numbers divisible by 5. The status bar at the bottom of the left window shows "Ln: 104 Col: 4", and the status bar at the bottom of the right window shows "Ln: 1 Col: 4".

The image displays two side-by-side screenshots of a Python 3.7.2 Shell window, illustrating a function call and its corresponding code.

Left Window (Python 3.7.2 Shell):

```
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32
bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\10.py
>>> selesaikanABC(1,2,3)
Determinannya negatif. Persamaan tidak mempunyai akar real.
>>> |
```

Right Window (Python 3.7.2 Shell):

```
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32
bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\10.py
>>> def selesaikanABC(a, b, c):
>>>     a = float(a)
>>>     b = float(b)
>>>     c = float(c)
>>>     D = b**2 - 4*a*c
>>>     if (D < 0):
>>>         print("Determinannya negatif. Persamaan tidak mempunyai akar real.")
>>>     else:
>>>         x1 = (-b + akar(D))/(2*a)
>>>         x2 = (-b - akar(D))/(2*a)
>>>         hasil = (x1,x2)
>>>         return hasil
```

11.

The screenshot shows two windows from a Python 3.7.2 environment. The left window is a shell with the following code:

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32
bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\11.py
>>> apakahKabisat(1896)
True
>>> apakahKabisat(1897)
False
>>> apakahKabisat(1900)
False
>>> apakahKabisat(2000)
True
>>> apakahKabisat(2004)
True
>>> apakahKabisat(2100)
False
>>> apakahKabisat(2400)
True
>>> |
```

The right window shows a Python file editor with the following code:

```
11.py - D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\11.py (...
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
```

12.

The screenshot shows two windows from a Python 3.7.2 environment. The left window is a shell with the following code:

```
Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32
bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\12.py
Permainan tebak angka.
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:> 75
Itu terlalu besar. Coba lagi.
Masukkan tebakan ke-3:> 25
Itu terlalu besar. Coba lagi.
Masukkan tebakan ke-4:> -3
Itu terlalu kecil. Coba lagi.
Masukkan tebakan ke-5:> 58
Itu terlalu besar. Coba lagi.
Masukkan tebakan ke-6:> 7
Itu terlalu besar. Coba lagi.
Masukkan tebakan ke-7:> 8
Itu terlalu besar. Coba lagi.
Masukkan tebakan ke-8:> 2
Ya. Anda benar
>>> |
```

The right window shows a Python file editor with the following code:

```
12.py - D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\12.py (...
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
```

13.

```

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32
bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\13.py
>>> katakan(3125750)
'Tiga Juta Seratus Dua Puluh Lima Ribu Tujuh Ratus Lima Puluh '
>>> |

13.py - D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\13.py (3.7.2)
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

```

14.

```

Python 3.7.2 Shell
File Edit Shell Debug Options Window Help
Python 3.7.2 (tags/v3.7.2:9a3ffc0492, Dec 23 2018, 22:20:52) [MSC v.1916 32
bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\14.py
>>> formatRupiah(1500)
'Rp 1.500'
>>> formatRupiah(2560000)
'Rp 2.560.000'
>>> |

14.py - D:\KULIAH\SEMESTER 4\PRAKTIKUM ALGORITMA DAN STRUKTUR DATA\14.py (...)
File Edit Format Run Options Window Help
def formatRupiah(n):
    x = str(n)
    if len(x) <= 3 :
        return 'Rp ' + x
    else:
        p = x[-3:]
        q = x[:-3]
        return (formatRupiah(q) + '.' + p)
    print ('Rp' + (formatRupiah(q) + '.' + p))

```