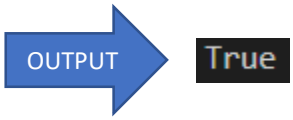
MODULE 3 – TEKNOLOGI DATA

To run Python practices below, you can use a Python IDE's such as Google Colab, PyCharm, Visual Studio Code etc. For the Google Colab, you can follow the tutorial from the following link: https://www.geeksforgeeks.org/how-to-use-google-colab/.

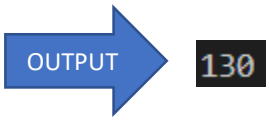
1. If-Else

```
if False:
    print("False")
else:
    print("True")
```



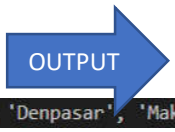
2. The addition of integers

```
nilai1 = 10
nilai2 = 20
nilai3 = 100
total = nilai1 + nilai2  \
    + nilai3
print(total)
```



3. Array

```
cabang = ['Jakarta', 'Bogor', 'Bandung', 'Solo', 'Malang', 'Surabaya',
      'Banyuwangi','Denpasar','Makassar']
print (cabang)
```



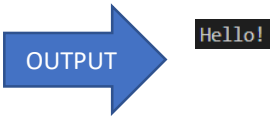

```
['Jakarta', 'Bogor', 'Bandung', 'Solo', 'Malang', 'Surabaya', 'Banyuwangi', 'Denpasar', 'Makassar']
```

4. Multiple addition operations in one command line

```
x = 100; y=150; z=22.56; hasil = x+2*y*z
print(hasil)
```

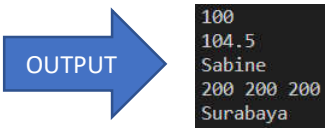
5. A code comment

```
# This is a comment
print ("Hello!")  # This is also a comment as a code documentation
```



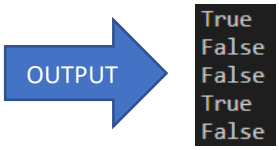
6. Assigning variables to values

```
counter = 100      # integer value assignment
jarak = 104.5      # floating point value
name = "nina"      # the name variable stores a String value

# multiple assignments in one command line :
a = b = c = 200
name, city, salary = "Sabine", 'Surabaya', 70000

print(counter)
print(jarak)
print(name)
print(a, b, c)
print(city)
```



7. Python conditions

```
print(True or False)   # output : True

print(True and False)  # output :False

print ( 100 > 200) # output :  False

a=9
print ( a > 0 ) # output :  True

b= 10
print ( a > b ) # output :  False
```



8. The type() function

```
x = None
print(type(x))    # output: NoneType

print(x == None)  # output:  True
print(x)   # output:  None
```

OUTPUT

```
<class 'NoneType'>
True
None
```

9. Input in Python

```
name = input('What is your name? ')

print('Hi ' + name + '!')
```

OUTPUT

```
What is your name? Python
Hi Python!
```

10. Paragraf

```
nama = 'Sabine'

kalimat = "This is a sentence."

Paragraf = """This is a paragraph.
Paragraphs are made up of several lines and sentences."""

print(nama)
print(kalimat)
print(Paragraf)

print(nama[0:5])
print(nama[2:])
print(kalimat[-8:-1])
```

OUTPUT

```
Sabine
This is a sentence.
This is a paragraph.
Paragraphs are made up of several lines and sentences.
Sabin
bine
entence
```

11. String Operations

```
myStr = 'Hello, Surabaya'
print(len(myStr))

pegawai = 'Sabine'
print ("nama : " , pegawai)
print("pass" + "word")

#age = 35
#mytext = 'Age is '
#print(mytext + age)    # Error

age = 35
mytext = 'Age is '
print(mytext + str(age))

print("Python " * 3)
```

OUTPUT

```
15
nama :  Sabine
password
Age is 35
Python Python Python
```

12. Double in Single

```
# 'Double' in Single
print('"Double" in Single')   # hasil : "Double" in Single

# "Double" in Double
print("\"Double\" in Double") # hasil : "Double" in Double
```

OUTPUT

```
"Double" in Single
"Double" in Double
```

13. String Manipulation

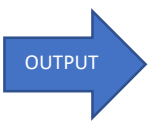
```
s = "SaMurai"
s.lower()  # 'samurai'
print(s)   # 'SaMurai'
s2 = s.lower()
print(s2)  #'samurai'

name = input('What is your name? ')

print('Hi ' + name + '!')
```

OUTPUT

```
SaMurai
samurai
What is your name? Samurai
Hi Samurai!
```

14. Variable Conversion

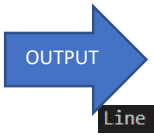
```
print(str(3.14))    # '3.14'
print(int("2345")) # 2345
print(int(75.99999))    # 75
print(float("5.678"))  # 5.678
print(float(9))     # 9.0
```




```
3.14
2345
75
5.678
9.0
```

15. List in Python

```
a = 10; b = 20
mylist = [1, 2, 3, 4, 5 ];

a = 2
if ( a in mylist):
   print ("Line 3 a is available in the given list")
else:
  print ("Line 3 a is not available in the given list")
```




```
Line 3 a is available in the given list
```

Submission Instructions:

1. A class leader should create a storage in Google Drive for storing all class assignments for the course of Teknologi Data.
2. Next, it is required to create a folder, called, Week 3.
3. Each student creates a folder with their respective names in the Week 3 folder.
4. Each student works on assignments from numbers 1 to 15 and stores each number with the file name as follows: NIM, question number.py (for example: 1234567_1.py). All python files are stored in their respective folders.

☺☺☺**Best of Lucks**☺☺☺