Introduction to Python

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What is Python?

1. Developed in 1990
2. High Level Language.
3. Interpreter

Python is the easier language to learn. No brackets, no main.

You get errors for writing an extra space

INSTA: RATHAN.CAGE

https://www.reddit.com/r/ProgrammerHumor/comments/ax9s4h/python/

When you switch from C++ to Python

https://www.reddit.com/r/ProgrammerHumor/comments/bwehje/python_ftw/

Variables, String and Numbers

What isVariables, String dan Numbers?

1. Variables

A value that stored in memory

2. String

A bunch of character or numbers

3. Numbers

Number can we use to operate

How to declare a variable

1. The first character must be underline character (_), words or capital.
2. Not allowed to use reserved word from Python.
3. Not allowed to use number for the first character.
4. Case sensitive based.

Example :

_first= 10, First = 20, first = 30, thefirst = “first”

Input/Output

For output of the python, we can use print keyword.

Syntax:

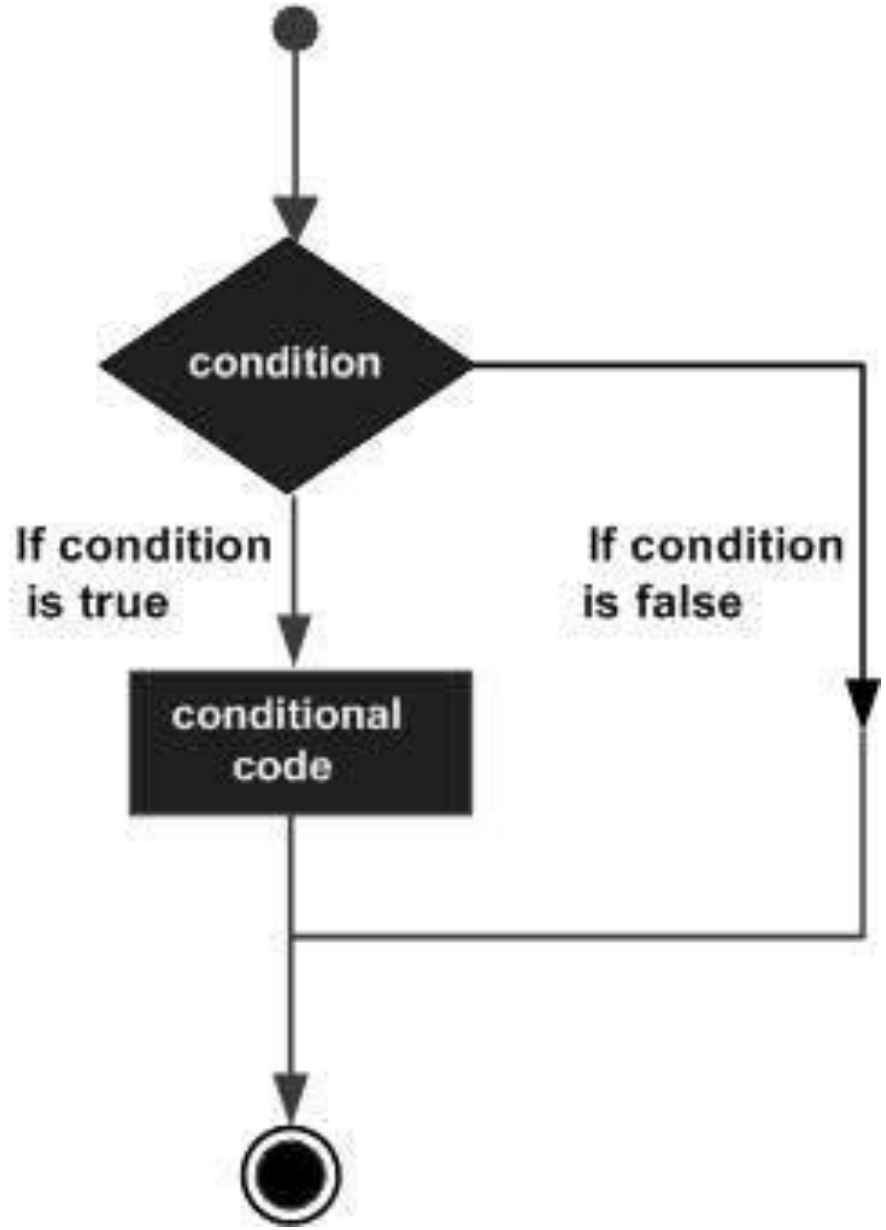
print(“Statement”) atau print(‘Statement’)

For the input of the python, we can use input keyword.

Syntax:

input(“statement”) atau variable = input(“Statement”)

Decision Making

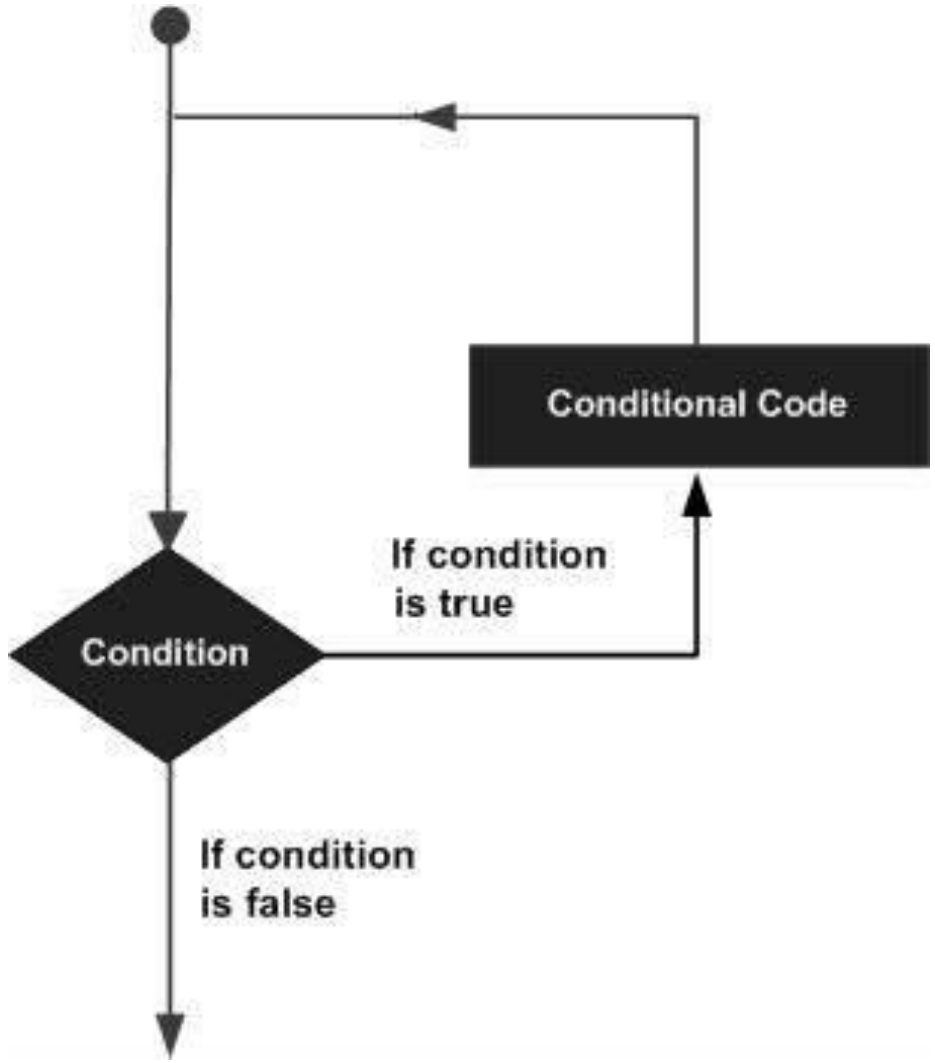

condition
If condition
is true
If condition
is false
conditional
code

```
If (condition) :
        statement 1
        statement n
```

```
If (condition) :
        statement 1
        statement n
else :
        statement n
```

```
If (condition) :
        statement 1
        statement n
elif (condition2) :
        statement n
else :
        statement n
```

Looping


Conditional Code
If condition
is true
Condition
If condition
is false

Looping	Nested Looping
For i in list: statement	For i in list: for j in list: statement

Function

```
def functionname(parameter1, parameter n):
    function_string
    return [expression]
```

Array vs List vs Tuple

Array

1. A bunch of data that have 1 data type.
2. Mutable.

List

1. A bunch of data that have different data type.
2. Mutable.

Tuple

1. A bunch of data that have different data type.
2. Immutable.

Example :

list1 = [‘physics’, ‘mathematics’, ‘chemistry’, 2000, 1999]

tup1 = (‘physics’, ‘mathematics’, ‘chemistry’, 2000, 1999)

arr1 = [‘physics’, ‘chemistry’, ‘mathematics’]

Dictionary

There is a key and value that separated with colon(:). It’s mutable.

Syntax :

Variable = {‘key’ : ‘value’}

Contoh :

dict1 = {‘DSI’ : ‘Data Science’}

Data Science

1. Numpy

Python library for manipulate array and matrix

Numpy is faster than list because data stored in one place for contiunity and more efficient.

2. Pandas

Python library for manipuate data visualization.

References and Special Thanks

https://www.tutorialspoint.com/python/index.htm

https://en.wikipedia.org/wiki/Python_(programming_language)

Assessment

1. Try to learn about python through online course. (w3schools, tutorialspoint, sololearn, udemy, udacity, etc). Free course recommended.
2. Practice the first until the end of the slide for this presentation.