

# Introduction to Python

Eddy

[eddyhu71@gmail.com](mailto:eddyhu71@gmail.com)

<https://github.com/EddyHu71>

<https://www.linkedin.com/in/eddy-0bb67a11b/>

**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/](https://www.reddit.com/r/ProgrammerHumor/comments/bwehje/python_ftw/)

# **Variables, String and Numbers**

# What is Variables, 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 atau capital.
2. Not allowed to use reserved word from Python.
3. Not allowed to use number for the first character.
4. Case sensitive based.

Contoh :

`_first= 10, First = 20, fist = 30, thefirst = "first"`

# **Input/Output**



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

Syntax:

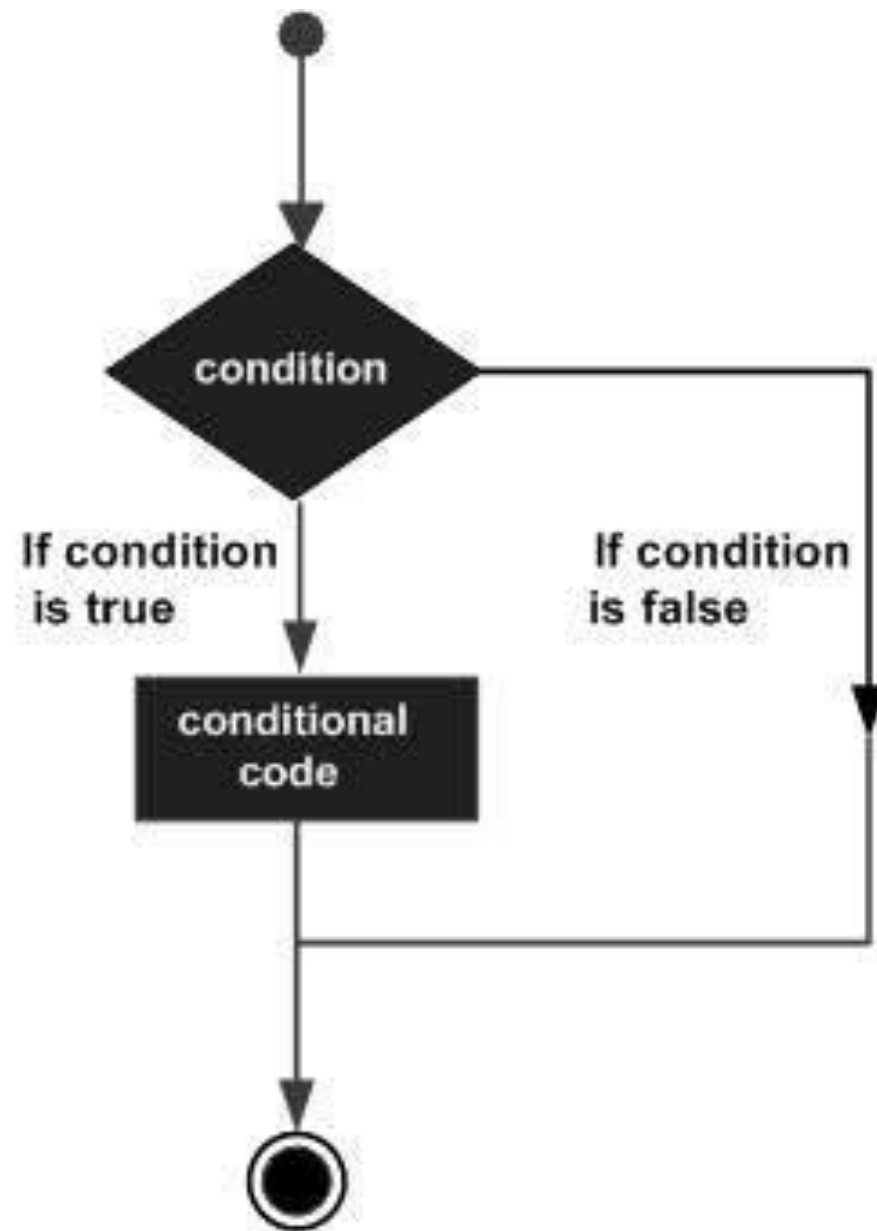
`print("Statement")` atau `print('Statement')`

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

Syntax:

`input("statement")` atau `variable = input("Statement")`

# Decision Making

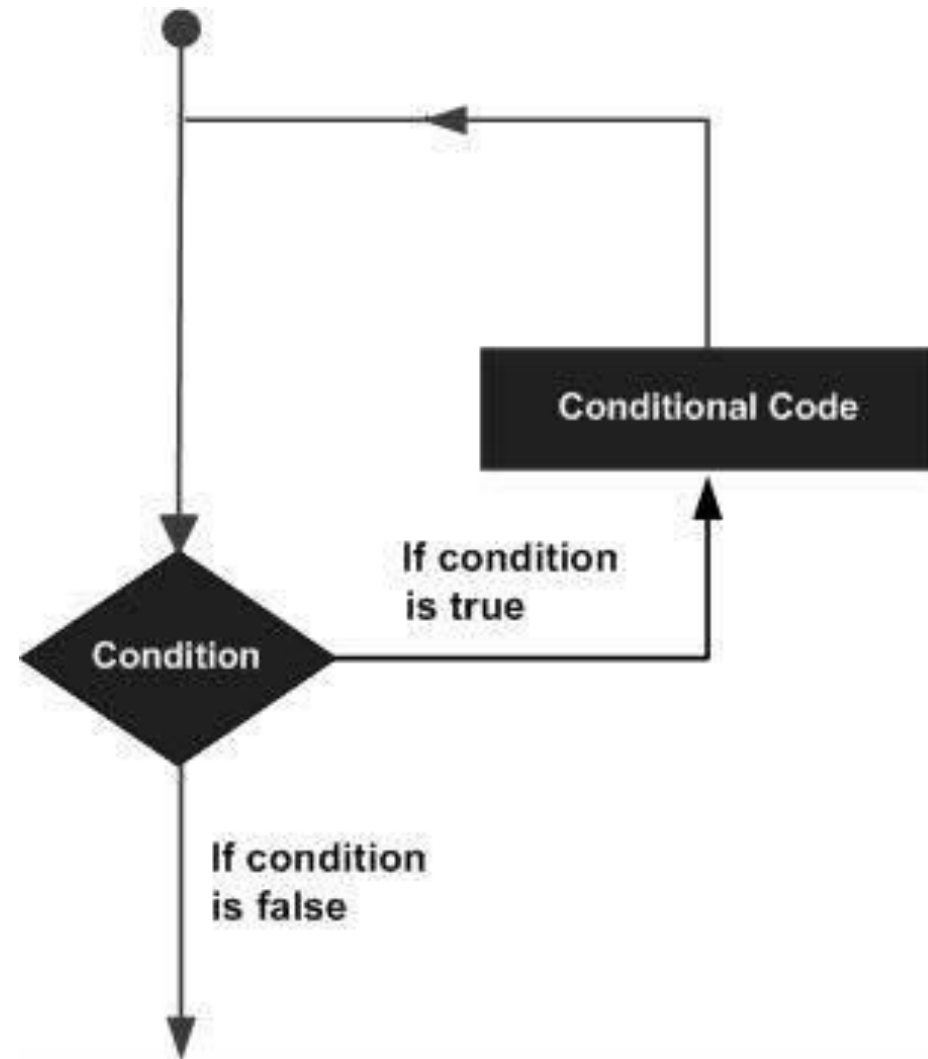


```
If (condition) :  
    statement 1  
    statement n
```

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

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

# Looping



## Looping

```
For i in list:  
    statement
```

## Nested Looping

```
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.

# Contoh :

```
list1 = ['physics', 'mathematics', 'chemistry', 2000, 1999]
```

```
tup1 = ('physics', 'mathematics', 'chemistry', 2000, 1999)
```

```
arr1 = ['physics', 'chemistry', 'mathematics']
```

# Dictionary

There is a key and that separated with semicolon(:). 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\\_\(programming\\_language\)](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.