

Introduction to Python

By Sendi Novianto



Sendi Novianto



Detail Information:

- S1 – Dian Nuswantoro
- S2 – ITS
- S3 – SCUT (South China University of Technology)
- Dosen Aktif Universitas Dian Nuswantoro
- **Bidang Penelitian:**
 - Game Technology
 - Artificial Intelligent
 - Image Processing
 - Pattern Recognition
 - IOT



Admin : Galang Rambu Anarki S.Kom



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01 Penjelasan Kelas FGA

Penjelasan Jadwal

Minggu 1	Sesi 1	Sesi 2	Sesi 3	Sesi 4	Sesi 5
	<p>Materi: <i>Introduction to Python</i></p> <p>2 JP Live Session 1 JP Hands-on Lab 2 JP Self-paced Learning di Netacad</p>	<p>Materi: <i>Sesi Diskusi: Review materi/praktikum</i></p> <p>2 JP Live Session 1 JP Hands-on Lab 2 JP Self-paced Learning di Netacad</p>	<p>Materi: <i>Data Types, Variables, Basic Input-Output Operations, Basic Operators</i></p> <p>2 JP Live Session 1 JP Hands-on Lab 2 JP Self-paced Learning di Netacad</p>	<p>Materi: <i>Sesi Diskusi: Review materi/praktikum</i></p> <p>2 JP Live Session 1 JP Hands-on Lab 2 JP Self-paced Learning di Netacad</p>	<p>Materi: <i>Boolean Values, Conditional Execution, Loops, Lists and List Processing, Logical and Bitwise Operations</i></p> <p>2 JP Live Session 1 JP Hands-on Lab 2 JP Self-paced Learning di Netacad</p>
Jam Pelajaran 25 JP	5 JP	5 JP	5 JP	5 JP	5 JP

Python Essentials 1: BASICS

Restricted Not available unless:

- The activity **Terms and Conditions [ACCEPT TO START THE COURSE]** is marked complete
- The activity **Welcome Survey [SUBMIT TO START THE COURSE]** is marked complete

Python Essentials 1 - STUDY RESOURCES



Module 1 - Introduction to Python and computer programming

Restricted Available until end of **9 September 2021**



Module 1 Test

Restricted Available until end of **9 September 2021**



Module 2 - Data types, variables, basic input-output operations, basic operators

Restricted Available until end of **9 September 2021**



Module 2 Test

Restricted Available until end of **9 September 2021**



Module 3 - Boolean values, conditional execution, loops, lists and list processing, logical and bitwise operations

Restricted Available until end of **9 September 2021**



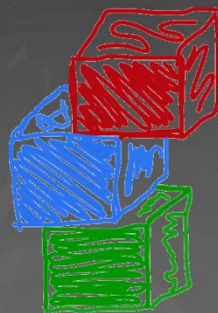
Module 3 Test

Restricted Available until end of **9 September 2021**

02 Kenapa Python ?



Kenapa Python ?



easybuild

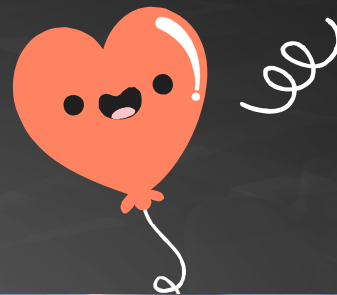
**DEPLOY
FAST
DEPLOY
EASY**





03

Dipakai Dimana Python ?





Pinterest



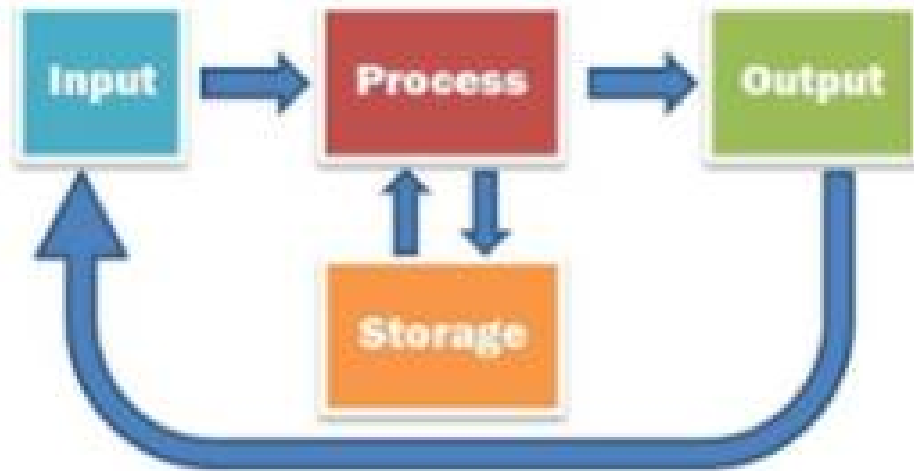


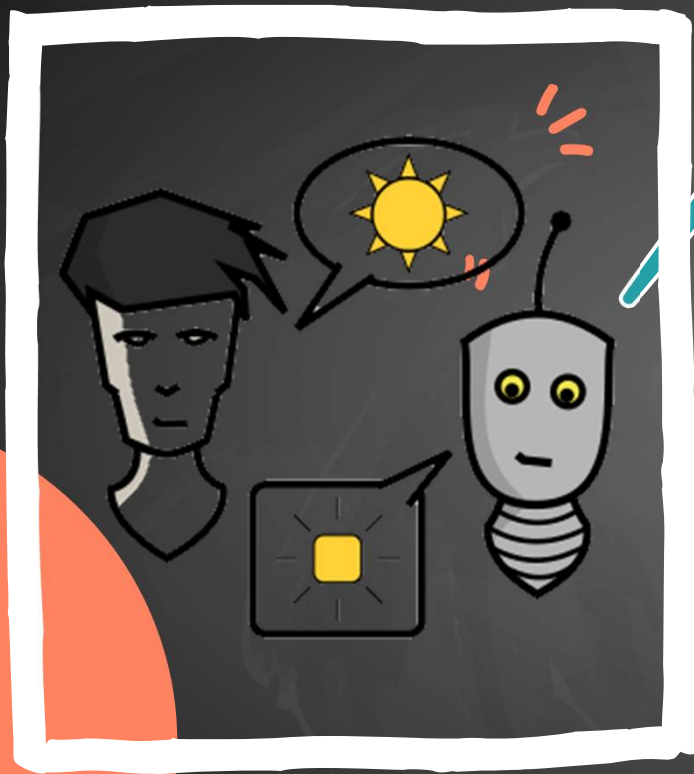
App Backup & Restore



04 Bagaimana Komputer Bekerja ?

How Does A Computer Works?





05

Natural Languages vs Programming Languages

Information Retrieval

Doc A

Doc 1

Doc 2

Doc 3

Sentiment Analysis



Information Extraction



Machine Translation



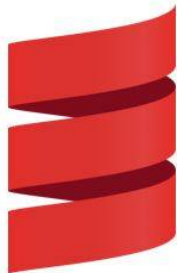
Natural Language Processing

Question Answering

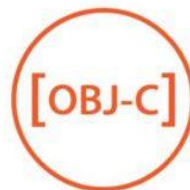


Human: When was Apollo sent to space?

Machine: First flight - AS-201, February 26, 1966



BASH
THE BOURNE-AGAIN SHELL



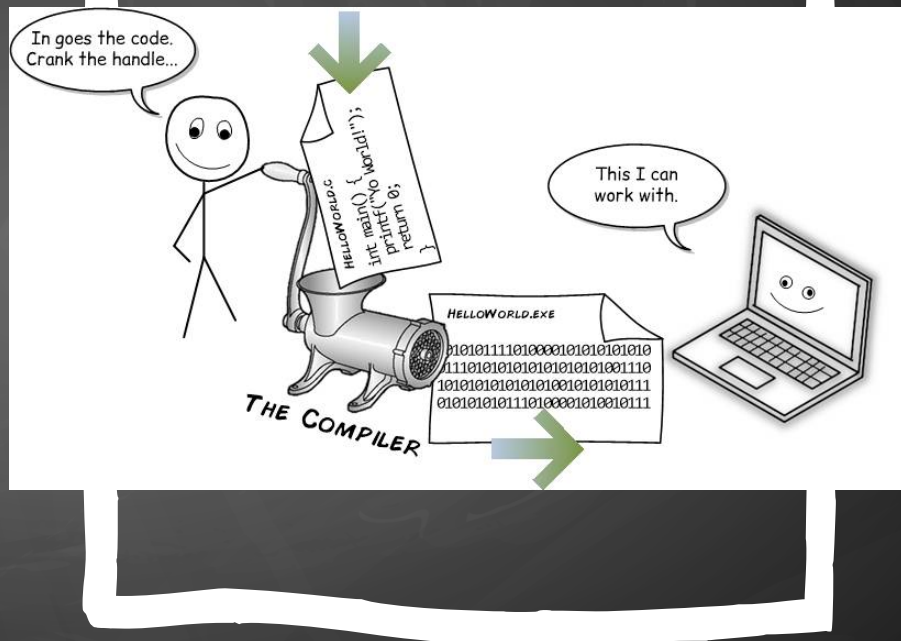
Swift

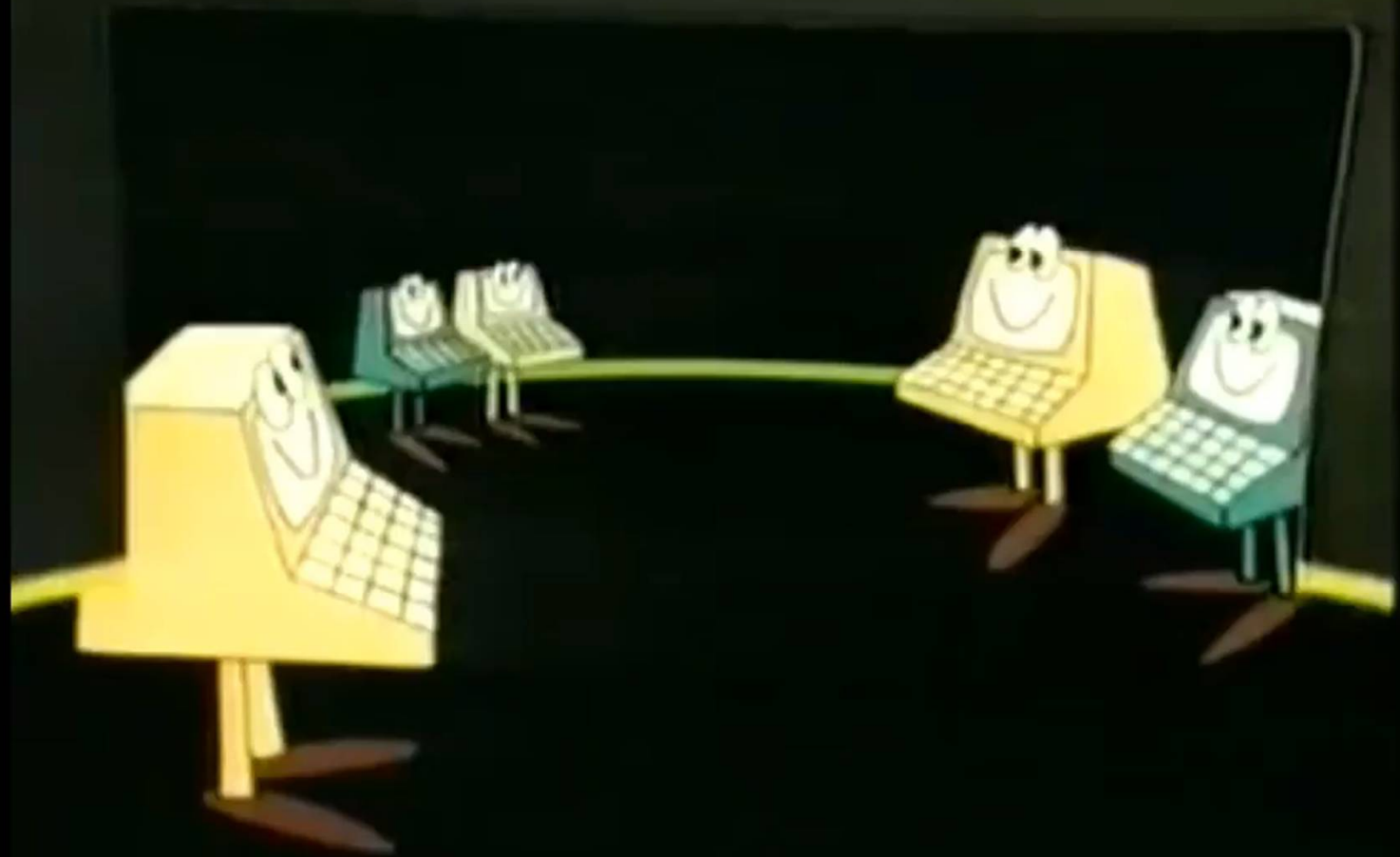


```
def add5(x):  
    return x+5  
  
def dotwrite(ast):  
    nodename = getNodeName()  
    label=symbol.sym_name.get(int(ast[0]),ast[0])  
    print '      %s [label="%s' % (nodename, label),  
    if isinstance(ast[1], str):  
        if ast[1].strip():  
            print '= %s'];' % ast[1]  
        else:  
            print '"]'  
    else:  
        print '"]';'  
        children = []  
        for n, child in enumerate(ast[1:]):  
            children.append(dotwrite(child))  
        print '      %s -> {' % nodename,  
        for name in children:  
            print '%s' % name,
```

06

Compilation Vs Interpretation







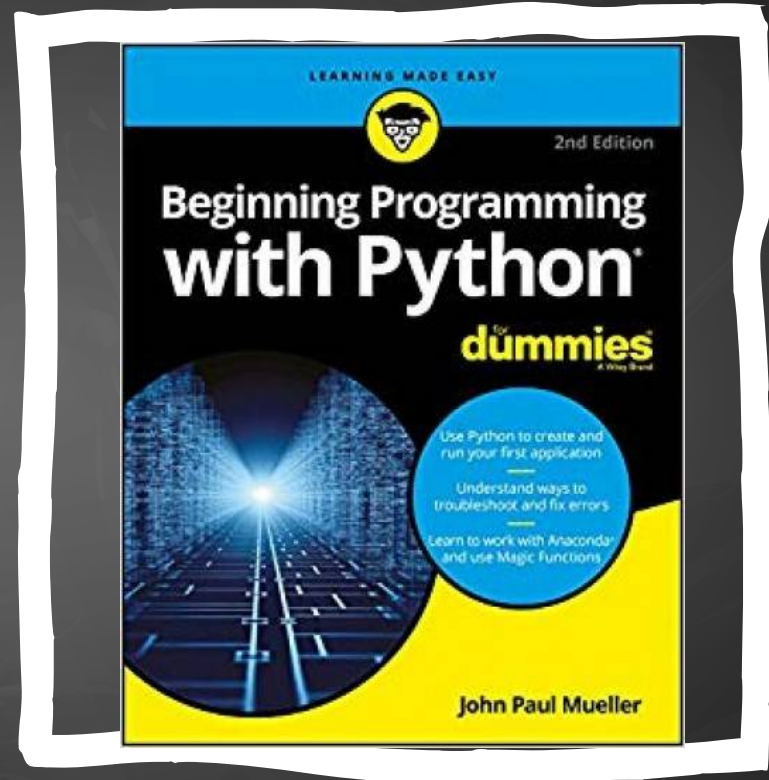
07

Sejarah Python



08

Mulai Dengan Python



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Python 3: Simple arithmetic

>>> 1 / 2

0.5

>>> 2 ** 3

8

>>> 17 / 3 # classic division returns a float

5.666666666666667

>>> 17 // 3 # floor division

5

>_

Intuitive Interpretation

Calculations are simple with Python, and expression syntax is straightforward: the operators `+`, `-`, `*` and `/` work as expected; parentheses `()` can be used for grouping.

[More about simple math functions in Python 3.](#)

1

2

3

4

5

Python is a programming language that lets you work quickly and integrate systems more effectively. >>> [Learn More](#)

Administrator: Command Prompt - python

Microsoft Windows [Version 10.0.19042.1110]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>python

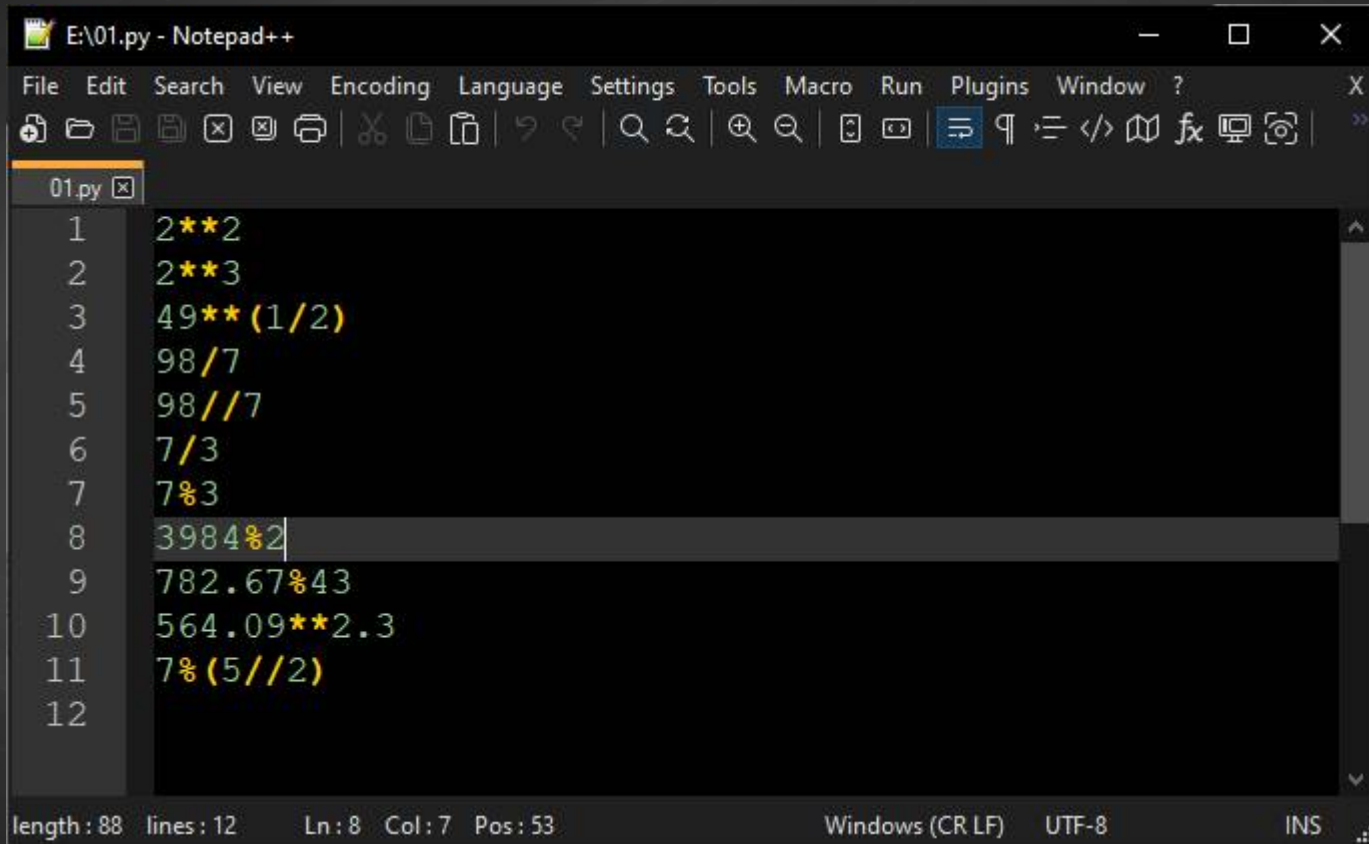
Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>

Administrator: Command Prompt - python

Microsoft Windows [Version 10.0.19042.1110]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>python

Python 3.9.1 (tags/v3.9.1:1e5d33e, Dec 7 2020, 17:08:21) [MSC v.1927 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>>



```
E:\01.py - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
01.py
1 2**2
2 2**3
3 49**(1/2)
4 98/7
5 98//7
6 7/3
7 7%3
8 3984%2
9 782.67%43
10 564.09**2.3
11 7%(5//2)
12
length : 88 lines : 12 Ln : 8 Col : 7 Pos : 53 Windows (CR LF) UTF-8 INS
```

E:\01.py - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

01.py

```
1 2**2
2 2**3
3 49**(1/2)
4 98/7
5 98//7
6 7/3
7 7%3
8 3984%2
9 782.67%43
10 564.09**2.3
11 7%(5//2)
12
```

length: 88 lines: 12 Ln: 8 Col: 7 Pos: 53

Administrator: Command Prompt

E:\>python 01.py

E:\>

E:\02.py - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

01.py 02.py

```
1 print('Hello World')
2 print 'selamat datang'
3
```

Administrator: Command Prompt

```
E:\>python 02.py
File "E:\02.py", line 2
    print 'selamat datang'
      ^
SyntaxError: Missing parentheses in call to 'print'. Did you mean print('selamat datang')?

E:\>_
```

E:\02.py - Notepad++

File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

01.py 02.py

```
1 print('Hello World')
2 print('selamat datang')
3
```

Administrator: Command Prompt

```
E:\>python 02.py
File "E:\02.py", line 2
    print 'selamat datang'
      ^
SyntaxError: Missing parentheses in call to 'print'. Did you mean print('selamat datang')?

E:\>python 02.py
Hello World
selamat datang

E:\>_
```

Contact

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Thank You!