

TUGAS JOBSHEET 1

VISUAL STUDIO CODE DENGAN PYTHON



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JURUSAN TEKNOLOGI INFORMASI
Mata Kuliah : Komputasi Kognitif
Dosen : Vipkas Al Hadid Firdaus, ST., MT.

Definisi Komputasi Kognitif

Istilah **kognitif** memiliki arti kemampuan otak manusia untuk *mempelajari, memahami, dan mengingat* sesuatu.

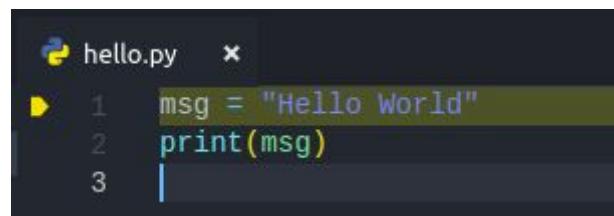
Komputasi Kognitif adalah sebuah sistem *berteknologi canggih* yang terdiri dari :

- pembelajaran mesin
- penalaran
- pengenalan dan penglihatan bicara (pengenalan objek)
- interaksi manusia dan komputer

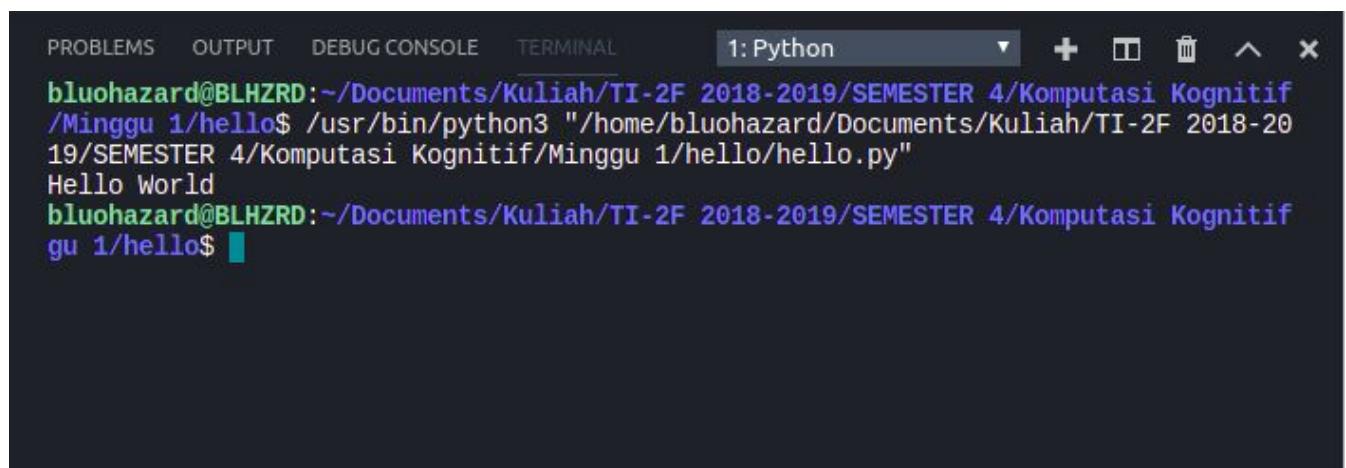
Dan teknologi tersebut berupaya *mereproduksi / menyamai* perilaku otak manusia dan dapat membantu dalam proses pengambilan keputusan.

Praktikum

- Menjalankan hello.py

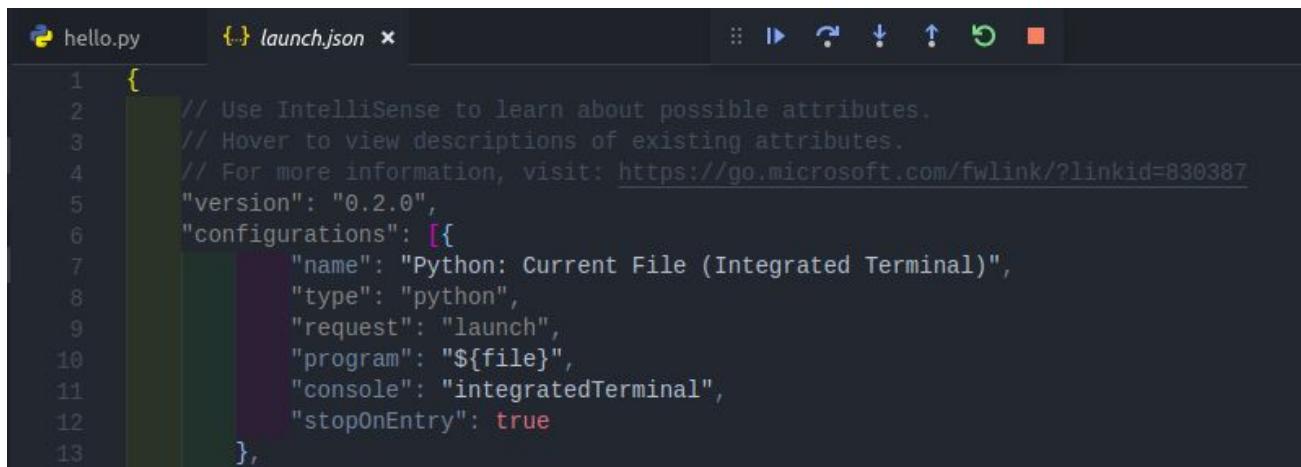


```
hello.py  x
▶ 1 msg = "Hello World"
  2 print(msg)
  3 |
```



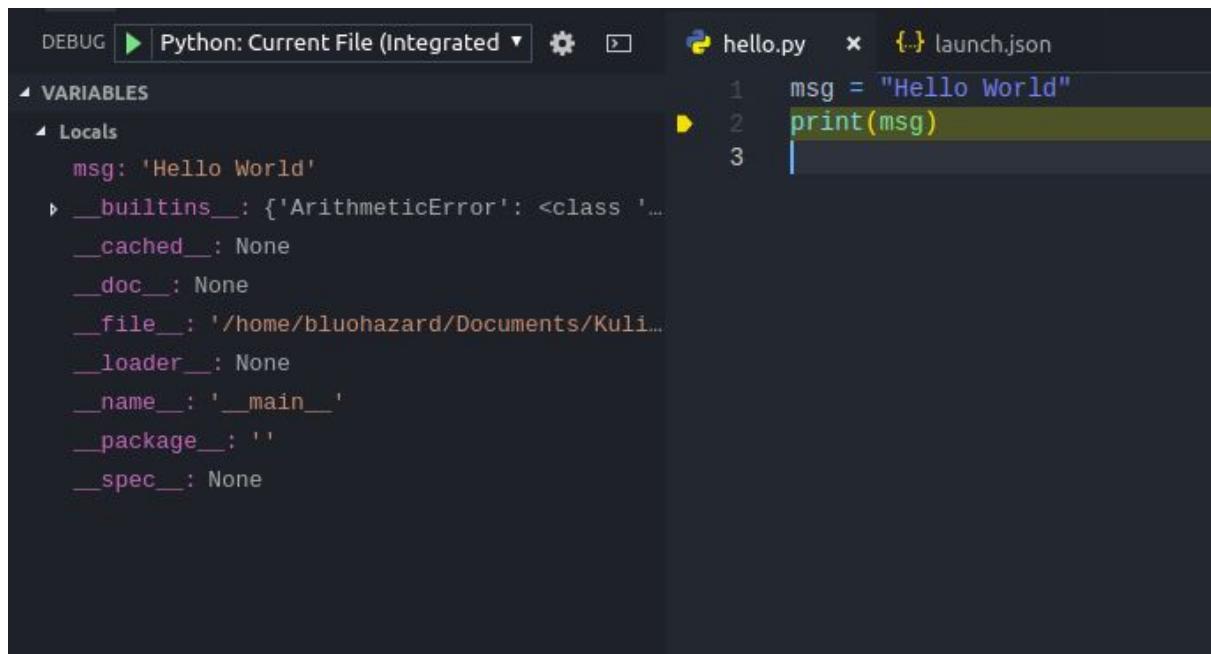
```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: Python + □ ⌂ ⌄ ⌁ ×
bluohazard@BLHZRD:~/Documents/Kuliah/TI-2F 2018-2019/SEMESTER 4/Komputasi Kognitif
/Minggu 1/hello$ /usr/bin/python3 "/home/bluohazard/Documents/Kuliah/TI-2F 2018-20
19/SEMESTER 4/Komputasi Kognitif/Minggu 1/hello/hello.py"
Hello World
bluohazard@BLHZRD:~/Documents/Kuliah/TI-2F 2018-2019/SEMESTER 4/Komputasi Kognitif
gu 1/hello$
```

■ Konfigurasi Debugger



```
1 {  
2     // Use IntelliSense to learn about possible attributes.  
3     // Hover to view descriptions of existing attributes.  
4     // For more information, visit: https://go.microsoft.com/fwlink/?linkid=830387  
5     "version": "0.2.0",  
6     "configurations": [  
7         {  
8             "name": "Python: Current File (Integrated Terminal)",  
9             "type": "python",  
10            "request": "launch",  
11            "program": "${file}",  
12            "console": "integratedTerminal",  
13            "stopOnEntry": true  
14        },  
15    ]  
16}
```

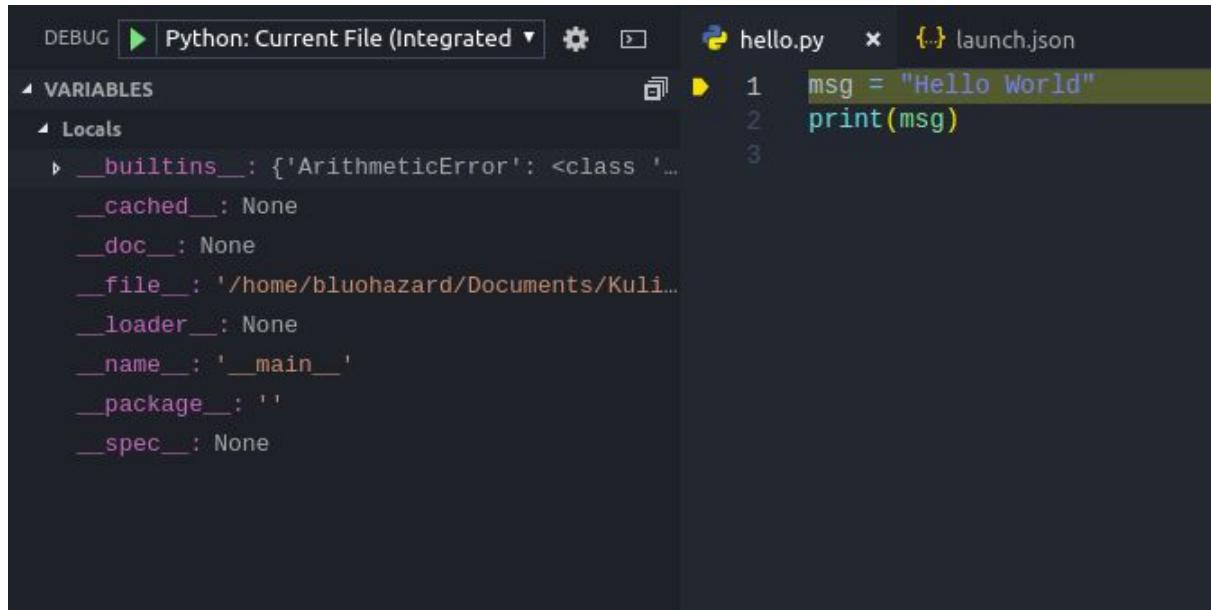
Bila “**stopOnEntry**” dihapus/dibuat **false**, maka program akan didebug sampai akhir baris



The screenshot shows a debugger interface in VS Code. On the left, the 'Locals' section of the variables sidebar is expanded, showing the variable 'msg' with the value 'Hello World'. On the right, the code editor displays a single line of Python code: `print(msg)`. The code editor has a dark theme with syntax highlighting.

Jika **stopOnEntry** dibuat **true**, maka debugger akan berhenti di baris yang sesuai dengan kemauan user.

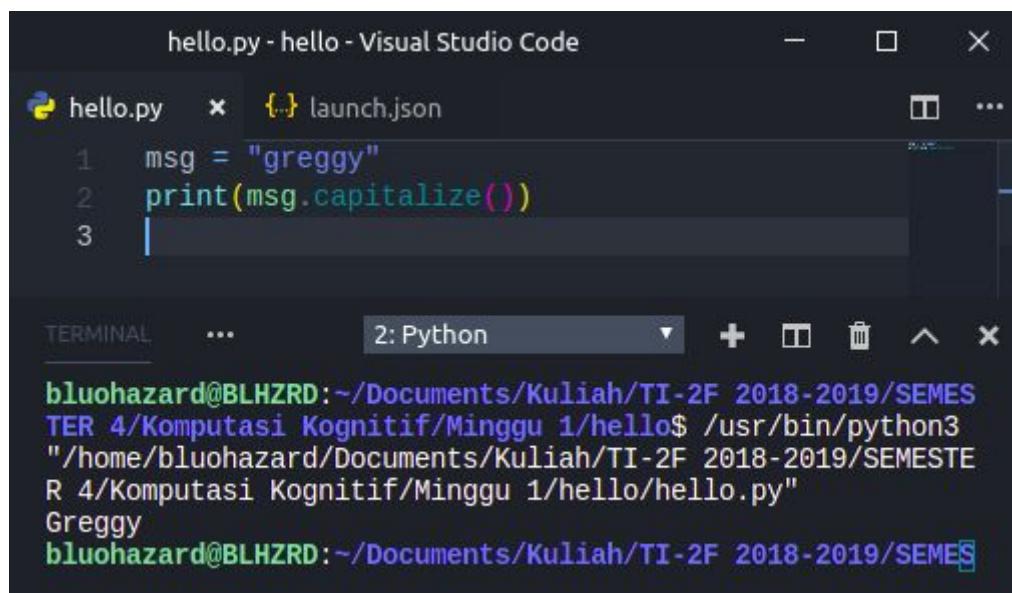
Contohnya gambar ini debug sampai **baris 1**



```
msg = "Hello World"
print(msg)
```

- Fungsi capitalize dan split

capitalize() untuk menjadikan huruf pertama pada variable adalah huruf **besar**



```
msg = "greggy"
print(msg.capitalize())
```

```
bluohazard@BLHZRD:~/Documents/Kuliah/TI-2F 2018-2019/SEMESTER 4/Komputasi Kognitif/Minggu 1/hello$ /usr/bin/python3
"/home/bluohazard/Documents/Kuliah/TI-2F 2018-2019/SEMESTER 4/Komputasi Kognitif/Minggu 1/hello/hello.py"
Greggy
bluohazard@BLHZRD:~/Documents/Kuliah/TI-2F 2018-2019/SEMESTER 4/Komputasi Kognitif/Minggu 1/hello$
```

`split()` untuk memisahkan/memecahkan string di dalam variabel

The screenshot shows a Visual Studio Code interface. The top editor window contains the code:

```
hello.py - hello - Visual Studio Code
hello.py  x  { } launch.json
1 msg = "greggy gianini firmansyah"
2 print(msg.split())
3
```

The bottom terminal window shows the output of running the script:

```
TERMINAL  ...  2: Python  +  -  ×
bluohazard@BLHZRD:~/Documents/Kuliah/TI-2F 2018-2019/SEMESTER 4/Komputasi Kognitif/Minggu 1/hello$ /usr/bin/python3
"/home/bluohazard/Documents/Kuliah/TI-2F 2018-2019/SEMESTER 4/Komputasi Kognitif/Minggu 1/hello/hello.py"
['greggy', 'gianini', 'firmansyah']
bluohazard@BLHZRD:~/Documents/Kuliah/TI-2F 2018-2019/SEMESTER 4/Komputasi Kognitif/Minggu 1/hello$
```

■ Sinusoida

The screenshot shows a Visual Studio Code interface with multiple files open in the Explorer sidebar: `hello.py`, `sdplot.py`, `launch.json`, `.vscode`, `setting`, and `sdplot.p`. The main editor window contains the code for `sdplot.py`:

```
sdplot.py - hello - Visual Studio Code
sdplot.py  x  { } launch.json
1 import matplotlib.pyplot as plt
2 import numpy as np
3 # membuat list angka berjarak dalam range yang ditentukan
4 x = np.linspace(0, 20, 100)
5 plt.plot(x, np.sin(x)) # Plot sinusoida dari tiap nilai
6 plt.show() # tampilkan plot
7
```

A preview window titled "Figure 1" displays a sine wave plot from x=0 to x=20. The y-axis ranges from -1.0 to 1.0, and the x-axis ranges from 0 to 20. The plot shows a periodic sine wave.