

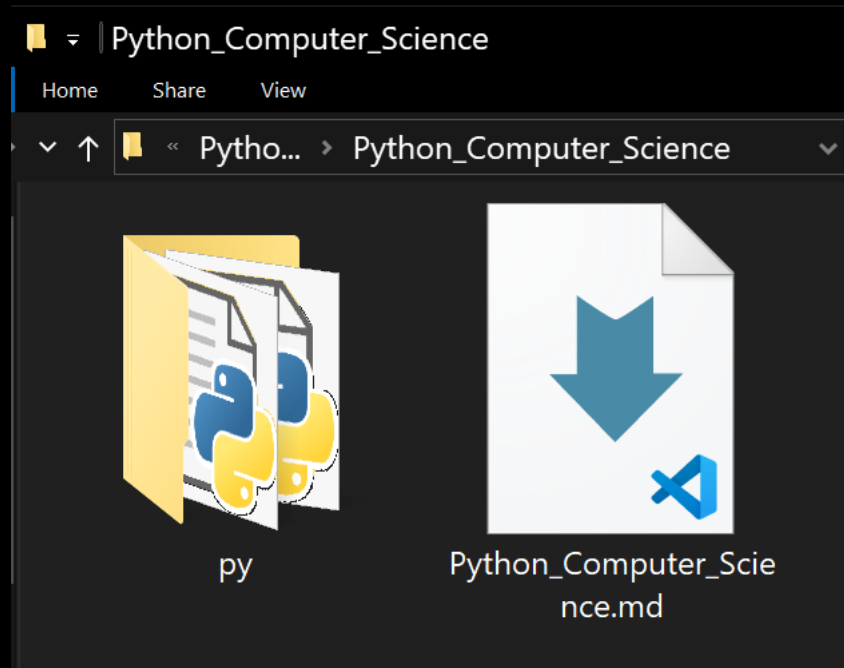
Python Computer Science

by

Christopher Andrew Topalian

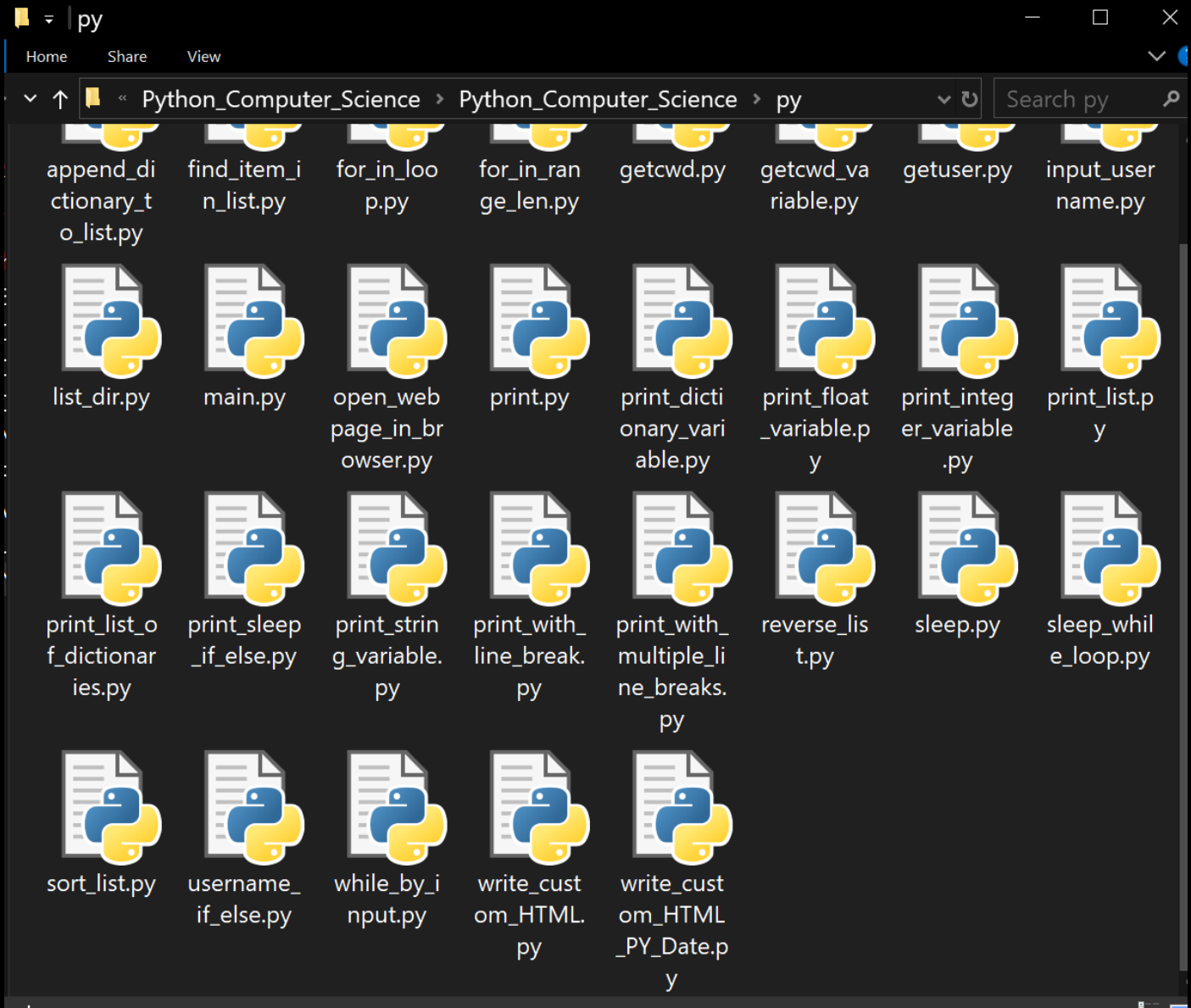
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Dedicated to God the Father



Here is our project folder.

We have our `Python_Computer_Science.md` file, that is our Table of Contents and it references scripts that are located in the folder named `py`



Here is our py folder of Python scripts.

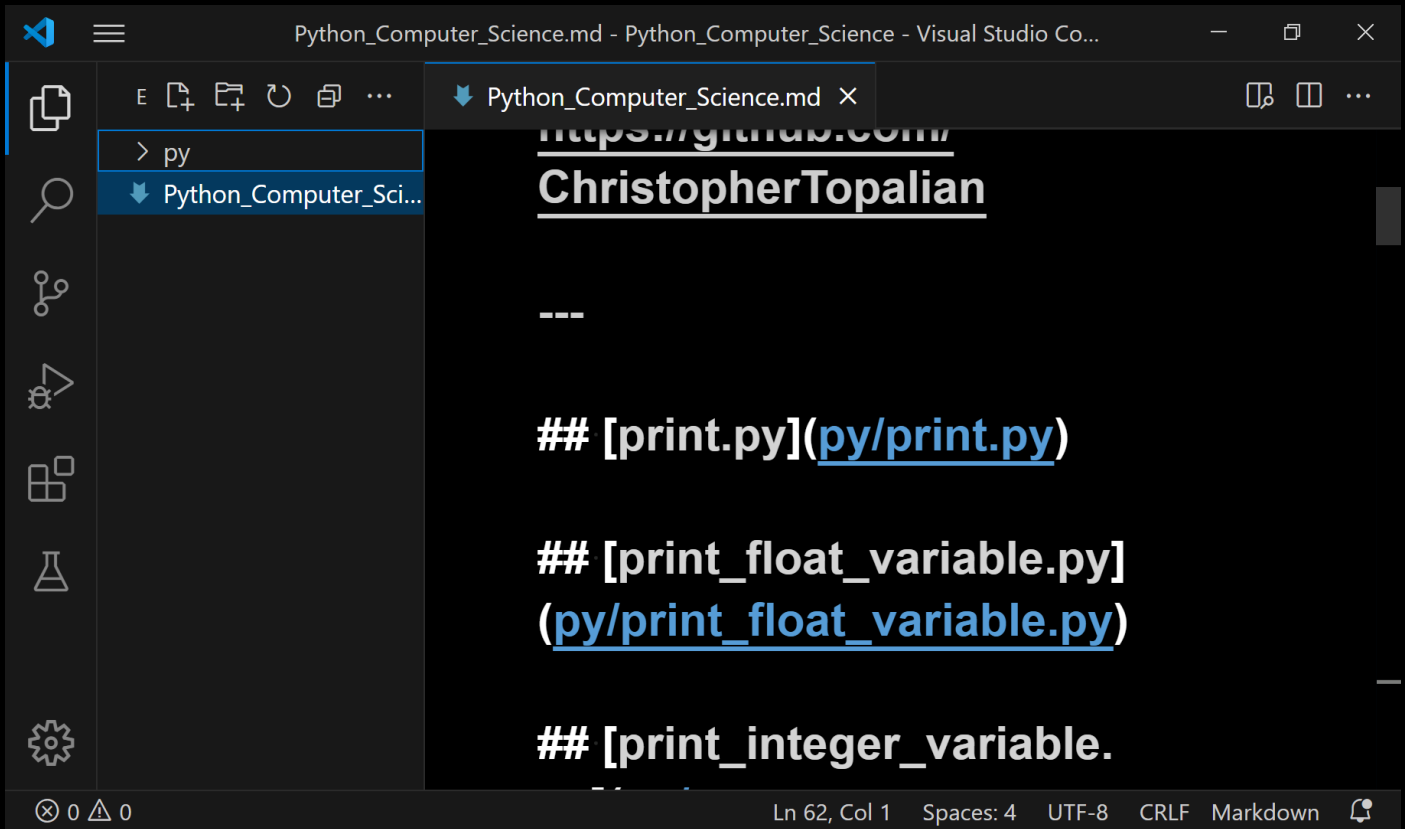
Our Markdown file is located outside of the py folder.

We can open the Python_Computer_Science.md file in VSCode and use the Preview feature.

The Python_Computer_Science.md file is a Table of Contents that is clickable, but of course we must have the Python scripts in the py folder for it to reference correctly.

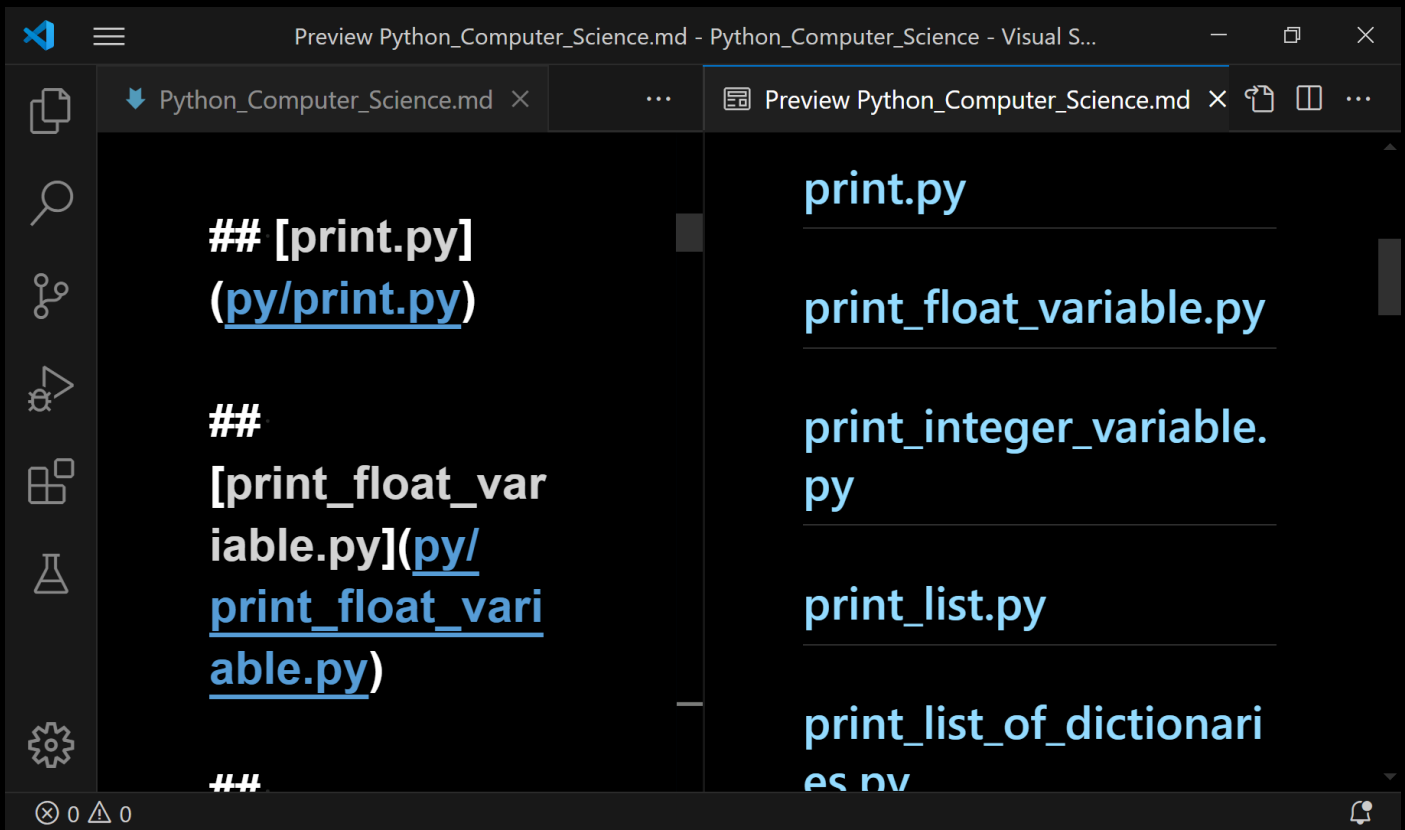
Important to note is that this also works on github! We can use the same reference structure so that people can have an easy time navigating our scripting project.

Happy Scripting :-)



Hold Control + Left Click on any link to open a script

OR Left click on the Preview Icon at the top right of the VSCode Window to enter Preview mode.

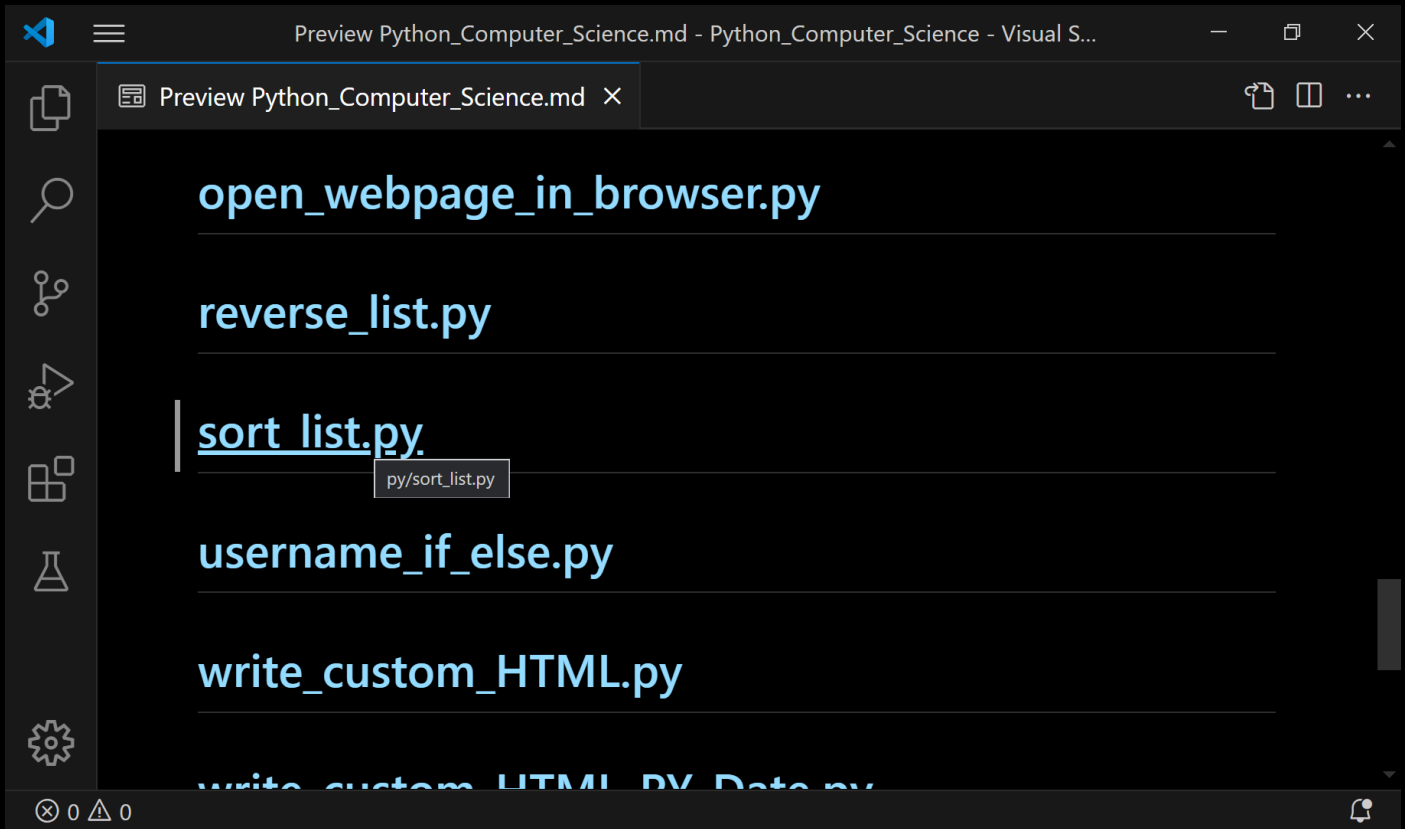


This shows our .md editable file on the left and the preview of the rendered markdown file on the right.

The right side can be left clicked on without having to hold down control.

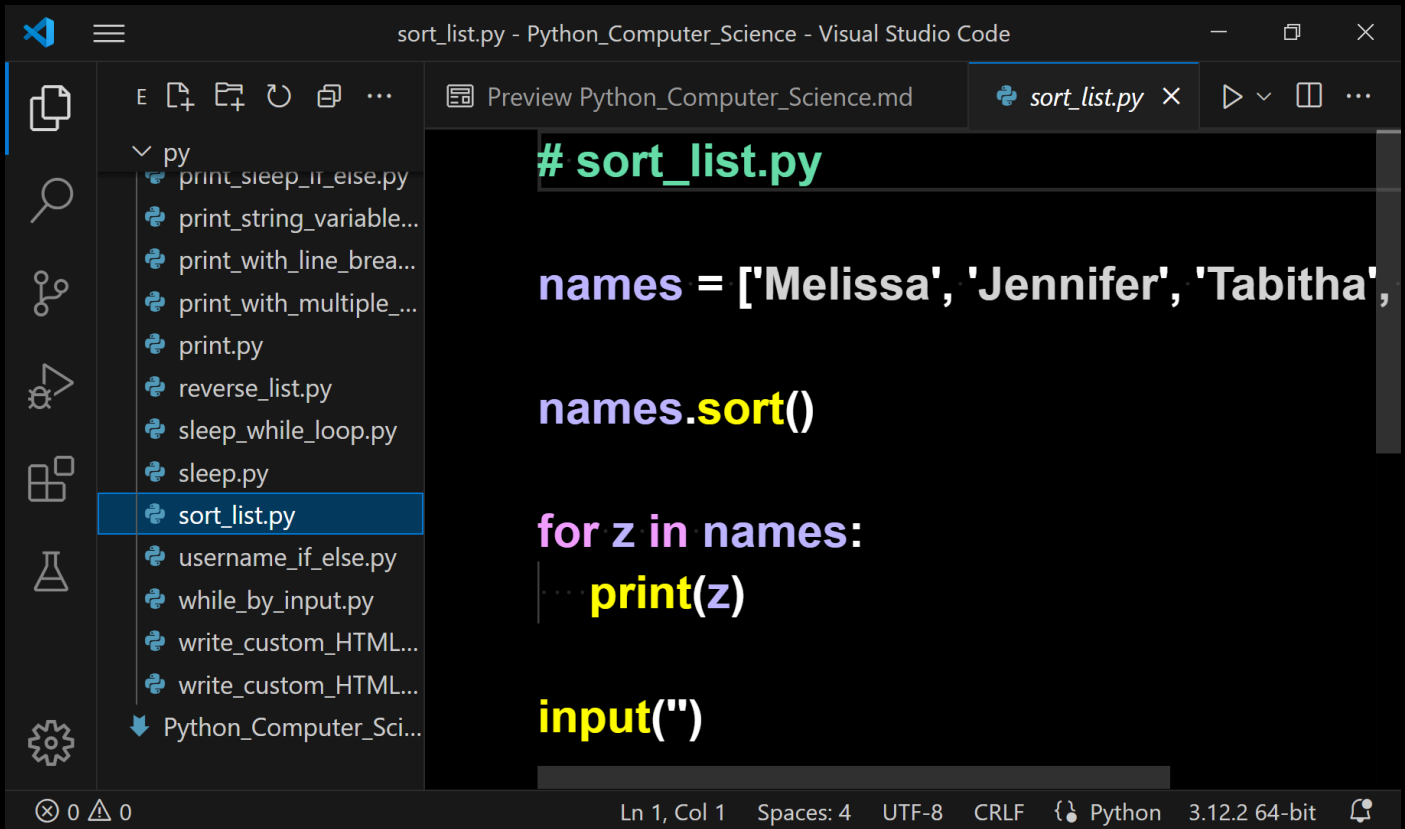


Control + Shift + V
Full Preview of our Markdown file for easy navigation in our VSCode scripting project.



Let's say that we Left Click on the file named `sort_list.py`

Result is shown on the next page.



The screenshot shows the Visual Studio Code interface. The title bar at the top reads "sort_list.py - Python_Computer_Science - Visual Studio Code". The left sidebar contains the File Explorer, which shows a folder named "py" with several files. The file "sort_list.py" is highlighted in blue. The main editor area shows the content of "sort_list.py" with the following code:

```
# sort_list.py

names = ['Melissa', 'Jennifer', 'Tabitha',

names.sort()

for z in names:
    print(z)

input("")
```

The status bar at the bottom indicates the current position is "Ln 1, Col 1", with "Spaces: 4", "UTF-8", "CRLF", and "Python" interpreter selected. The version "3.12.2 64-bit" is also shown.

This opens our script in another tab and shows us which script in the folder is being worked on by highlighting the name of the script in the file explorer on the left side. This makes working on big projects very easy, because we are very organized.

<!-- Python_Computer_Science.md -->

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Python_Computer_Science

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<https://github.com/ChristopherTopalian>

[print.py](py/print.py)

##

[print_float_variable.py](py/print_float_variable.py)

##

[print_integer_variable.py](py/print_integer_variable.py)

[print_list.py](py/print_list.py)

##

[print_list_of_dictionaries.py](py/print_list_of_dictionaries.py)

##

[print_dictionary_variable.py](py/print_dictionary_variable.py)

##

[print_string_variable.py](py/print_string_variable.py)

##

[print_with_line_break.py](py/print_with_line_break.py)

##

[print_with_multiple_line_breaks.py](py/print_with_multiple_line_breaks.py)

[sleep.py](py/sleep.py)

##

[sleep_while_loop.py](py/sleep_while_loop.py)

[while_by_input.py](py/while_by_input.py)

##

[print_sleep_if_else.py](py/print_sleep_if_else.py)

##

[append_dictionary_to_list](py/append_dictionary_to_list.py)

##

[find_item_in_list.py](py/find_item_in_list.py)

[for_in_loop.py](py/for_in_loop.py)

##

[for_in_range_len.py](py/for_in_range_len.py)

[getcwd.py](py/getcwd.py)

[getcwd_variable](py/getcwd_variable.py)

[getuser.py](py/getuser.py)

##

[input_username.py](py/input_username.py)

[list_dir.py](py/list_dir.py)

##

[open_webpage_in_browser.py](py/open_webpage_in_browser.py)

[reverse_list.py](py/reverse_list.py)

[sort_list.py](py/sort_list.py)

##

[username_if_else.py](py/username_if_else.py)

##

[write_custom_HTML.py](py/write_custom_HTML.py)

##

[write_custom_HTML_PY_Date.py](py/write_custom_HTML_PY_Date.py)

append_dictionary_to_list.py

```
people = []
```

```
jane = {  
    'name': 'Jane',  
    'score': 98  
}
```

```
people.append(jane)
```

```
print(people)  
input("")
```

```
# find_item_in_list.py
```

```
ourNumbers = [  
    4, 875, 23, 543, 12  
]
```

```
numberToFind = 875
```

```
if (numberToFind in ourNumbers):  
    print(f'Yes, {numberToFind} is there')  
else:  
    print(f'No, {numberToFind} is NOT there')
```

```
input("")
```

```
# for_in_loop.py
```

```
ourNumbers = [  
    4, 875, 23, 543, 12  
]
```

```
for z in ourNumbers:  
    print(z)
```

```
input("")
```

for_in_range_len.py

```
ourNumbers = [  
    4, 875, 23, 543, 12  
]  
  
for z in range(len(ourNumbers)):  
    print(ourNumbers[z])  
  
input("")
```

```
# getcwd.py
```

```
import os
```

```
print(os.getcwd())  
input("")
```

```
# getcwd_variable.py
```

```
import os
```

```
theCwd = os.getcwd()
```

```
print(theCwd)
```

```
input("")
```

```
# getuser.py
```

```
import getpass
```

```
print(getpass.getuser())  
input("")
```

```
# input_username.py
```

```
userName = input("Enter Username: ")
```

```
print("Username is: " + userName)
```

```
input("")
```



```
# list_dir.py
```

```
import os
```

```
print(os.listdir())  
input("")
```

```
# open_webpage_in_browser.py
```

```
import webbrowser
```

```
webbrowser.open('https://github.com/  
ChristopherTopalian')
```

```
# print.py
```

```
print('Hi Everyone')  
input("")
```

print_dictionary_variable.py

```
jane = {  
    'name': 'Jane',  
    'score': 98  
}
```

```
print(jane)  
input("")
```

```
# print_float_variable.py
```

```
numberOfPeople = 20.82
```

```
print(numberOfPeople)  
input("")
```

```
# print_integer_variable.py
```

```
numberOfPeople = 20
```

```
print(numberOfPeople)
```

```
input("")
```

```
# print_list.py
```

```
people = [  
    'Jane',  
    'Tabitha',  
    'Melissa'  
]
```

```
print(people)  
input("")
```

print_list_of_dictionaries.py

```
people = [  
    {  
        'name': 'Jane',  
        'score': 95  
    },  
    {  
        'name': 'Melissa',  
        'score': 98  
    },  
    {  
        'name': 'Tabitha',  
        'score': 93  
    },  
]
```



```
print(people)  
input("")
```

```
# print_sleep_if_else.py
```

```
import time
```

```
print('Hi Friend')
```

```
time.sleep(3.0)
```

```
print('Is the sun shining?')
```

```
sunShining = input('y/n\n')
```

```
if (sunShining == 'y'):
```

```
    print('Nice that it is sunny out')
```

```
else:
```

```
    print('The sun will be there soon')
```

```
input("")
```



```
# print_string_variable.py
```

```
numberOfPeople = 'Twenty'
```

```
print(numberOfPeople)
```

```
input("")
```

```
# print_with_line_break.py
```

```
print('Hi Everyone\nHappy Scripting')  
input("")
```

print_with_multiple_line_breaks.py

```
print('Hi Everyone\n\nHappy Scripting')  
input("")
```

```
# reverse_list.py
```

```
names = ['Jane', 'Jennifer', 'Melissa', 'Tabitha']
```

```
names.reverse()
```

```
for z in names:  
    print(z)
```

```
input("")
```

```
# sleep.py
```

```
import time
```

```
time.sleep(4.0)
```

```
print('4 seconds passed')
```

```
input("")
```



```
# sleep_while_loop.py
```

```
import time
```

```
x = 0
```

```
while x != 1:
```

```
    time.sleep(4.0)
```

```
    print('4 seconds passed')
```

```
input("")
```

```
# sort_list.py
```

```
names = ['Melissa', 'Jennifer', 'Tabitha', 'Jane']
```

```
names.sort()
```

```
for z in names:
```

```
    print(z)
```

```
input("")
```

```
# username_if_else.py
```

```
userName = input("Enter Username: ")
```

```
if (userName == 'Christopher'):
```

```
    print('Hi Christopher')
```

```
else:
```

```
print(f'Hi {userName}. Tell Christopher to  
sign in.')
```

```
input("")
```

```
# while_by_input.py
```

```
import time
```

```
x = input('Type 1 and press Enter\n')
```

```
while (x == '1'):  
    time.sleep(4.0)  
    print('4 seconds passed')
```

```
input("")
```

write_custom_HTML.py

```
ourHTMLContent = """  
<html>  
<head>  
<title> Our HTML Page </title>  
  
<style>  
  
body  
{  
    padding: 10px;  
    background-color: rgb(30, 30, 30);  
    font-family: Arial;  
    font-size: 20px;  
    color: rgb(255, 255, 255);  
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<div> Hi Everyone </div>
```

```
</body>
```

```
</html>
```

```
.....
```

```
with open('ourNewWebpage.html', 'w') as  
theFile:  
    theFile.write(ourHTMLContent)
```

```
# write_custom_HTML_PY_Date.py
```

```
import datetime as dt
```

```
currentDate = dt.datetime.now().strftime('%Y-%m-%d')
```

```
ourHTMLContent = f"""
```

```
<html>
```

```
<head>
```

```
<title> Our HTML Page </title>
```

```
<style>
```

```
body {{
```

```
    padding: 10px;
```

```
    background-color: rgb(30, 30, 30);
```

```
    font-family: Arial;
```

```
font-size: 20px;  
color: rgb(255, 255, 255);  
}}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<div> Current Date: {currentDate} </div>
```

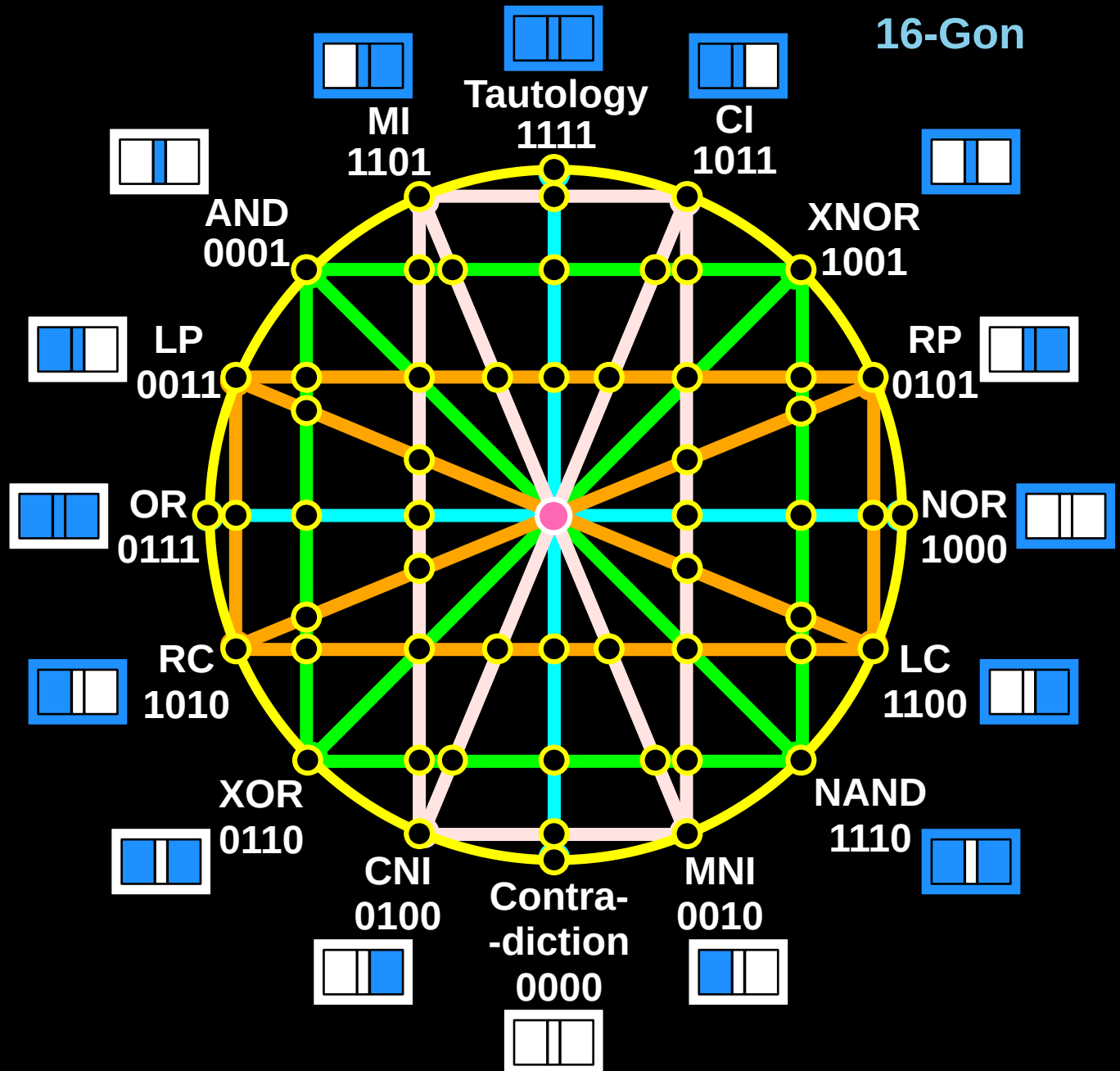
```
<div> Hi Everyone </div>
```

```
</body>
```

```
</html>
```

```
with open('ourNewWebpage.html', 'w') as  
theFile:  
    theFile.write(ourHTMLContent)
```

True Artificial Intelligence System



For More Tutorials:

[GitHub.com/ChristopherTopalian](https://github.com/ChristopherTopalian)

[GitHub.com/ChristopherAndrewTopalian](https://github.com/ChristopherAndrewTopalian)

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Dedicated to God the Father

**This book is created by the
College of Scripting Music & Science.**

**Always remember, that each time you write a script
with a pencil and paper, it becomes imprinted so
deeply in memory that the material and methods are
learned extremely well.**

**When you Type the scripts, the same is true. The
more you type and write out the scripts by keyboard
or pencil and paper, the more you will learn
programming!**

**Write and Type every example that you find.
Keep all of your scripts organized.**

**Every script that you create increases your
programming abilities.**

**SEEING CODE, is one thing,
but WRITING CODE is another.**

Write it, Type it, Speak it, See it, Dream it.

CollegeOfScripting.weebly.com