

# Python Syntax

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## Execute Python Syntax

As we learned in the previous page, Python syntax can be executed by writing directly in the Command Line:

```
>>> print("Hello, World!")  
Hello, World!
```

Or by creating a python file on the server, using the .py file extension, and running it in the Command Line:

```
C:\Users\Your Name>python myfile.py
```

## Python Indentation

Indentation refers to the spaces at the beginning of a code line.

Where in other programming languages the indentation in code is for readability only, the indentation in Python is very important.

Python uses indentation to indicate a block of code.

### Example

```
if 5 > 2:  
    print("Five is greater than two!")
```

Python will give you an error if you skip the indentation:

## Example

Syntax Error:

```
if 5 > 2:  
  
print("Five is greater than two!")
```

The number of spaces is up to you as a programmer, the most common use is four, but it has to be at least one.

## Example

```
if 5 > 2:  
  
    print("Five is greater than two!")  
  
if 5 > 2:  
  
    print("Five is greater than two!")
```

You have to use the same number of spaces in the same block of code, otherwise Python will give you an error:

Syntax Error:

```
if 5 > 2:  
  
print("Five is greater than two!")  
  
    print("Five is greater than two!")
```

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# Python Variables

In Python, variables are created when you assign a value to it:

## Example

Variables in Python:

```
x = 5
```

```
y = "Hello, World!"
```

Python has no command for declaring a variable.

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## Comments

Python has commenting capability for the purpose of in-code documentation.

Comments start with a #, and Python will render the rest of the line as a comment:

## Example

Comments in Python:

```
#This is a comment.
```

```
print("Hello, World!")
```