**Python Syntax**

## 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!")

**output**

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!")

**output**

File "demo\_indentation\_test.py", line 2  
    print("Five is greater than two!")  
        ^  
IndentationError: expected an indented block

The number of spaces is up to you as a programmer, 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!")

**output**

Five is greater than two!  
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:

### Example

Syntax Error:

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

**output**

 File "demo\_indentation2\_error.py", line 3  
    print("Five is greater than two!")  
    ^  
IndentationError: unexpected indent

## Python Variables

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

### Example

Variables in Python:

x = 5  
y = "Hello, World!"

**output**

5  
Hello, World!

Python has no command for declaring a variable.

## 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!")

**Output**

Hello, World!