

After the break...

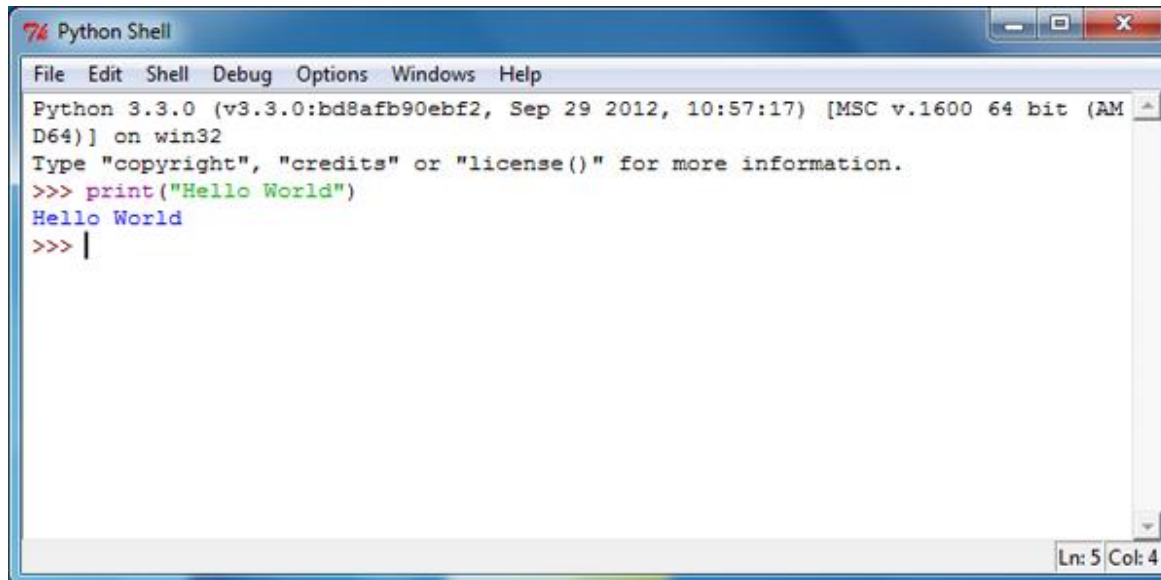
“Python Introduction”

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Python: What is it?

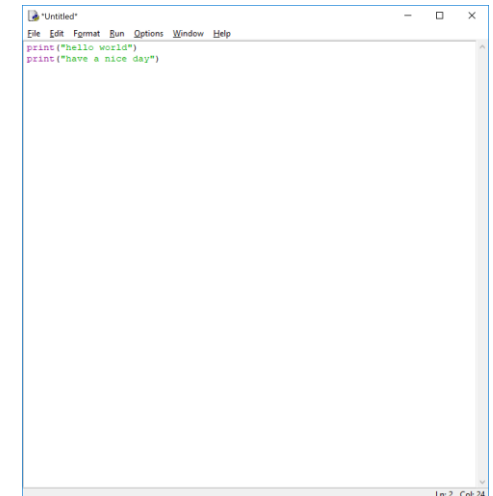
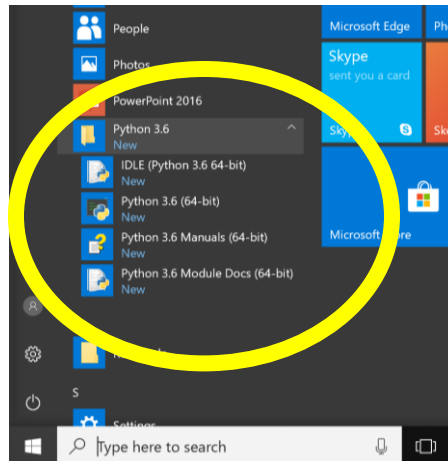
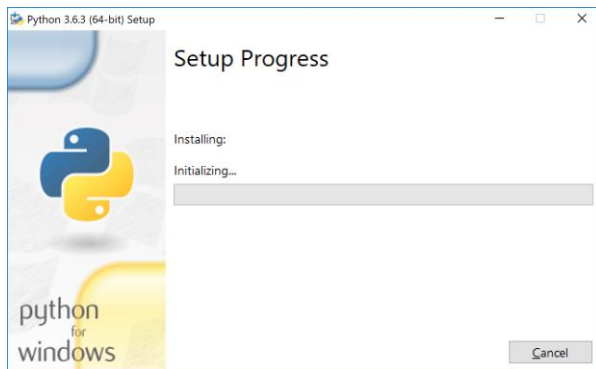
- Open source high-level programming language
- Created by Guido van Rossum and first released in 1991
- Focused on code readability, requires few lines of code
- Differences from Java?
 - Interpreted language (Java is compiled)
 - Dynamically typed (Java is static typed)
 - Whitespace matters

A screenshot of a Windows-style application window titled "Python Shell". The window has a menu bar with "File", "Edit", "Shell", "Debug", "Options", "Windows", and "Help". The main text area shows the following text: "Python 3.3.0 (v3.3.0:bd8afb90ebf2, Sep 29 2012, 10:57:17) [MSC v.1600 64 bit (AMD64)] on win32", "Type 'copyright', 'credits' or 'license()' for more information.", ">>> print('Hello World')", "Hello World", and ">>> |". The status bar at the bottom right indicates "Ln: 5 Col: 4".

```
Python Shell
File Edit Shell Debug Options Windows Help
Python 3.3.0 (v3.3.0:bd8afb90ebf2, Sep 29 2012, 10:57:17) [MSC v.1600 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> print("Hello World")
Hello World
>>> |
Ln: 5 Col: 4
```

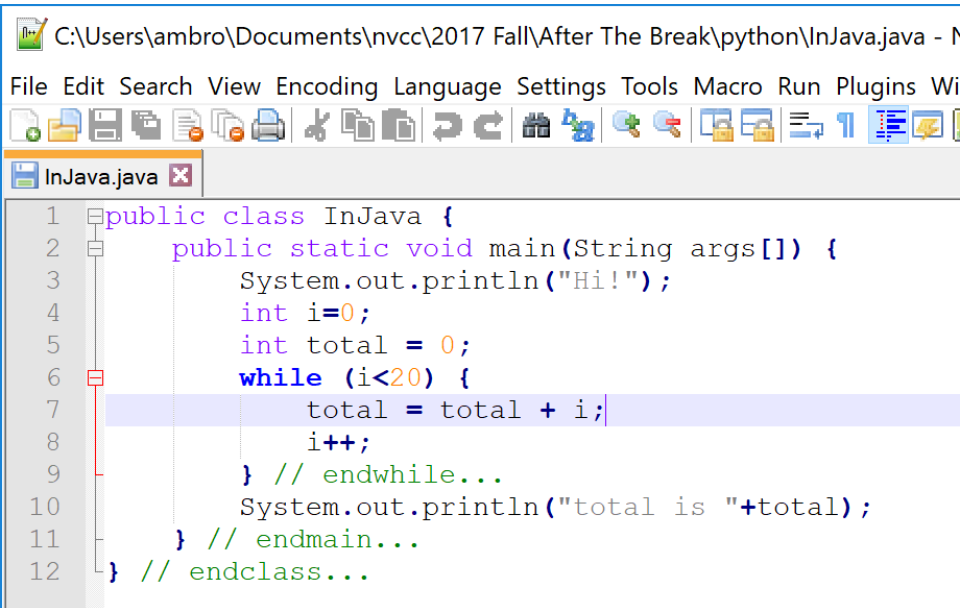
Python: How do I get it?

- <https://www.python.org/downloads/windows/>
- Select latest Python 3 release
- Select “Windows x86-64 executable installer” (or different one if on different OS) near the bottom of the page
- Run the downloaded executable, click install now
- Installs IDLE (Python IDE), python (command line), docs and manuals



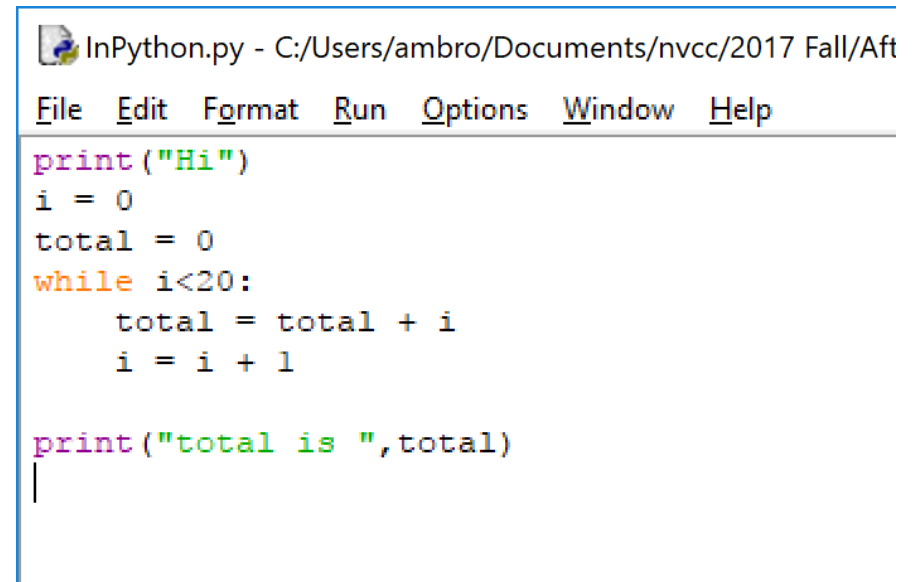
Python: Some quick syntax

- Java:



```
C:\Users\ambro\Documents\nvcc\2017 Fall\After The Break\python\InJava.java - I
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Wi
InJava.java x
1 public class InJava {
2     public static void main(String args[]) {
3         System.out.println("Hi!");
4         int i=0;
5         int total = 0;
6         while (i<20) {
7             total = total + i;
8             i++;
9         } // endwhile...
10        System.out.println("total is "+total);
11    } // endmain...
12 } // endclass...
```

- Python:



```
InPython.py - C:/Users/ambro/Documents/nvcc/2017 Fall/Aft
File Edit Format Run Options Window Help
print("Hi")
i = 0
total = 0
while i<20:
    total = total + i
    i = i + 1
print("total is ",total)
|
```

Python Resources

- Tutorials:
 - <https://docs.python.org/3/tutorial/>
 - <http://python4java.necaiseweb.org/>
- Books:
 - Learning Python
(<https://www.amazon.com/dp/1449355730>)
 - Python for Data Analysis
(<https://www.amazon.com/dp/1449319793>)
- Cool Python Libraries:
 - Python Game Library:
<https://www.pygame.org/news>
 - Numpy: <http://www.numpy.org/>
 - Scipy: <https://www.scipy.org/>
 - MATPLOTLIB: <https://matplotlib.org/>

