



# Intro to Python

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# Outlines of the Day

- Introducing ourselves
- Class Structure
- Git
- GitHub
- Why Python?



# Class Structure

- Overall we'll learn:
  - Python Basics
  - Functions
  - Control Structures
  - Lists
  - Dictionaries and Sets(Tuples)
  - Writing Algorithms
- Ton's of exercise and hands on examples



# Git

- What is Git
  - [http://www.youtube.com/watch?v=\\_Jmkvv\\_nKTE](http://www.youtube.com/watch?v=_Jmkvv_nKTE)
  - <http://www.youtube.com/watch?v=uhtzxPU7Bz0>
- You can download the software from
  - <http://git-scm.com/downloads>
- Source to study Git:
  - <http://git-scm.com/book/en/v2>
  - [http://www.youtube.com/playlist?list=PLGLfVvz\\_LVvQHO1PfyscjIPkNJjgHsLyH](http://www.youtube.com/playlist?list=PLGLfVvz_LVvQHO1PfyscjIPkNJjgHsLyH)



# GitHub

- GitHub is the best platform to share your code with world.
- You can join someone else's project by contributing
- You can get help for your project
- You can fix bugs from others project to be recognized
- And more...
- Let's see an example how Github changed life...
  - <http://www.youtube.com/watch?v=rExMh3Ew3FQ#t=439>
  - Workshops...
  - Codecademy
  - YouTube
  - Be a contributor, give back...





# Why we learned those stuff???

- Using a version control system is a core of development process
- During this course, I would encourage you to use GitHub to share your code with classmates and world.
- I will check HWs and little projects from your Github account, so learning all those stuff(!) important.





# Python Because...

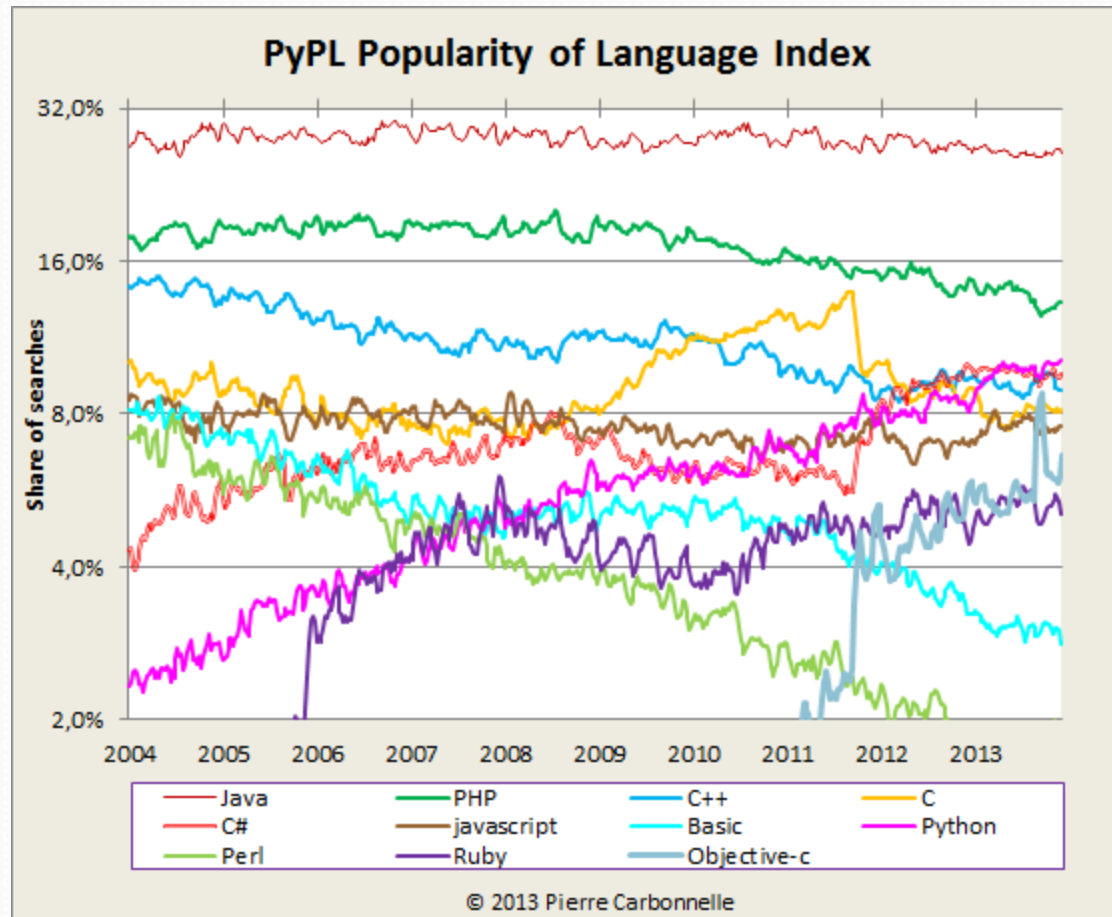
- You can quickly learn without losing yourself inside of bunch of syntactic rule.
- Python is very readable. You are typing as you speak, almost!
- Printing is just :
  - `print("Hello, world!")`
- Python has tons of documentations and help, such as:
  - [python.org](https://python.org)
  - [Python Tutor](#)
- Python has giant standard library with again tons of user-built extension libraries.
- Very minimal setup requirement and process(after this lecture you will understand.)
- Errors appear in runtime
- The Giants uses python, Google, NASA, Quora, Pinterest, Instagram, etc.
- Amazing and Huge Python community that contributes new things everyday.



# Let the Stats Talk

Position Jan 2014	Position Jan 2013	Delta in position	Programming language	Share in Jan 2014	Twelve month trends
1	1		Java	26.2 %	-0.6 %
2	2		PHP	13.2 %	-1.6 %
3	6	↑↑↑	<u>Python</u>	10.2 %	+1.3 %
4	3	↓	C#	9.6 %	-0.4 %
5	4	↓	C++	8.9 %	-0.0 %
6	5	↓	C	8.1 %	-0.2 %
7	7		<u>Javascript</u>	7.6 %	+0.3 %
8	8		<u>Objective-C</u>	6.6 %	+0.8 %
9	9		<u>Ruby</u> + Rails	5.1 %	+0.5 %
10	10		Visual Basic	2.8 %	-0.2 %
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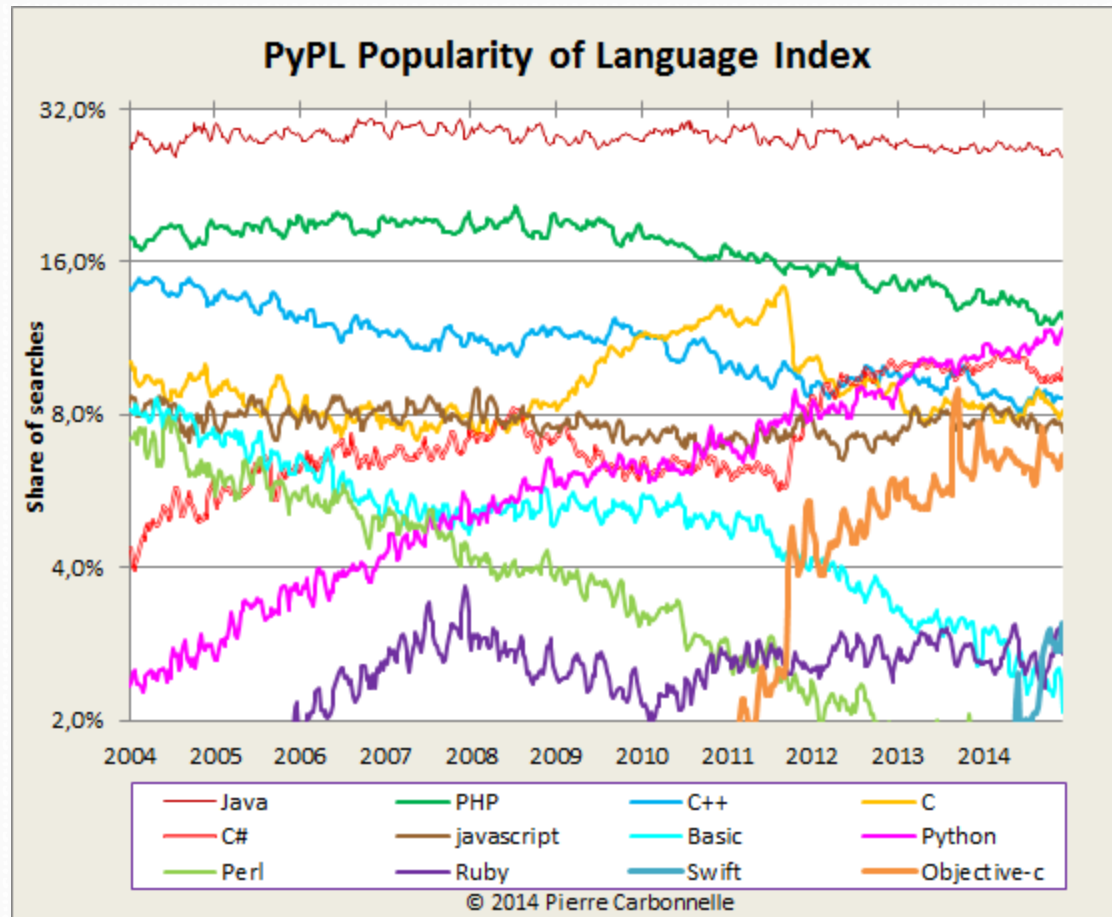






# 2015

Position Jan 2015	Position Jan 2015	Delta in position	Programming language	Share in Jan 2015	Twelve month trends
1	1		Java	25.8 %	-0.5 %
2	2		PHP	12.4 %	-1.7 %
3	3		<u>Python</u>	11.8 %	+1.0 %
4	4		C#	9.9 %	-0.9 %
5	5		C++	8.7 %	-0.1 %
6	6		C	8.2 %	+0.3 %
7	7		<u>Javascript</u>	7.4 %	-0.6 %
8	8		<u>Objective-C</u>	6.7 %	-0.4 %
9		↑↑	Swift	3.1 %	+3.9 %
10	10		<u>Ruby</u>	2.7 %	+0.1 %
11	9	↓↓	Visual Basic	2.1 %	-0.6 %
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# You Do Things With Python



# To Do List

- Download and Setup git version control system and get used to it a little bit.
- Create a GitHub account, follow me on [Github](#)
- Setup Python environment (installation guides in [github](#))



# Bibliography

- <http://git-scm.com/>
- <http://sourceforge.net/projects/gitextensions/>
- <https://sites.google.com/site/pydata/pypl/python-blog/pythonisthelanguageoftheyear>
- <https://sites.google.com/site/pydata/pypl/PyPL-Popularity-of-Programming-Language>