Python Training Workshop 2019

A brief introduction course to Python

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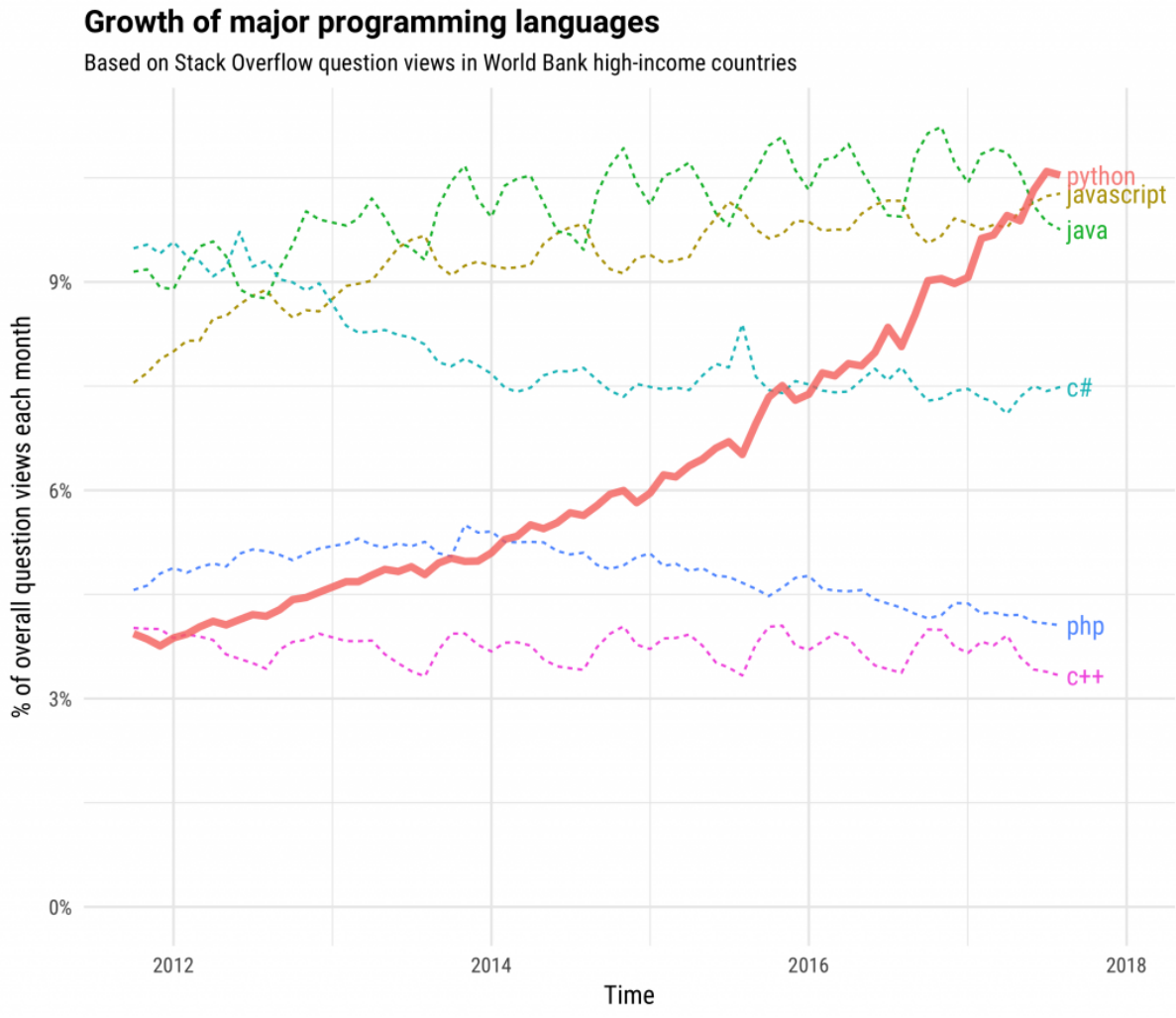
Please go to http://goo.gl/ for the materials. :)

Introduction

Python: a very fast-growing language



Era of Computation

- Open Source Codes everywhere
- Tons of packages
- Good documentations
- Multi-core CPU and GPU support
- Easily-accessible cloud framework

Python: a versatile language

Python is a

- high-level
- object-oriented, and
- Interpreted

programming language.

Python: a "High-level language"

- "Low level language": C, Fortran, Basic
- **Level** means the accessiblity to system resources.
- **High Level** :
  - care less about memory management or proper declaration of variables
  - less abstract than low-level language
  - less time to write and compile
  - relatively slower running time than some low-level language (not always true).

Community of Python users

- Web backend developers
- Data science
- Machine learning

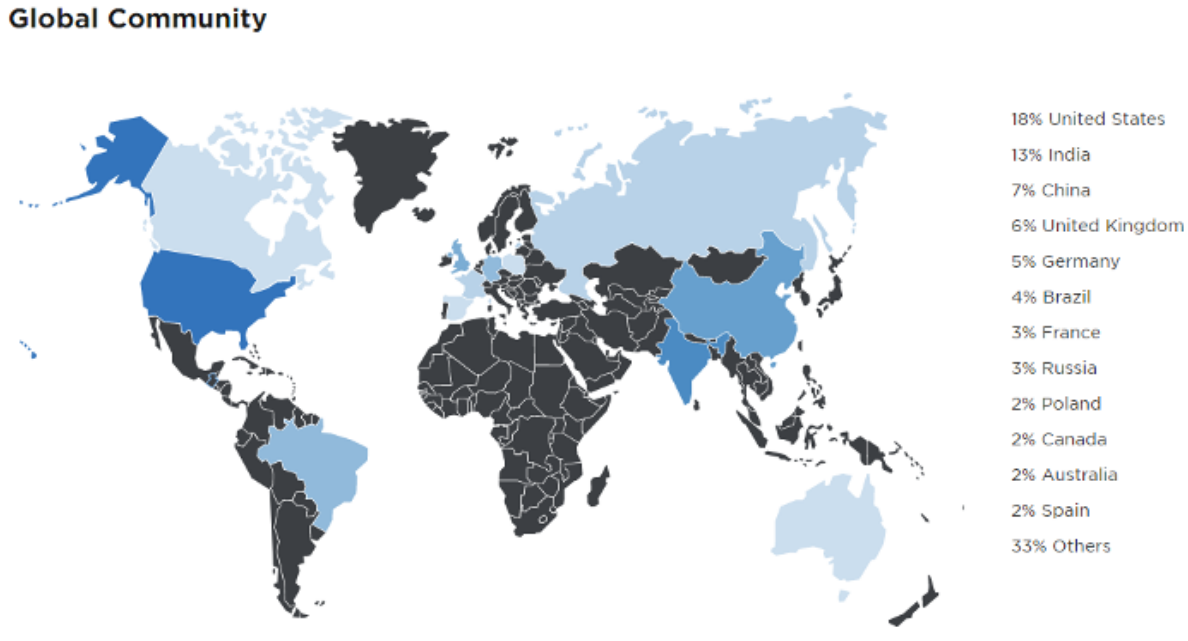
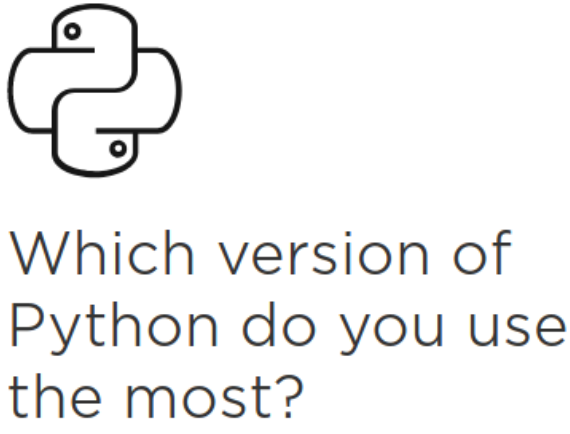


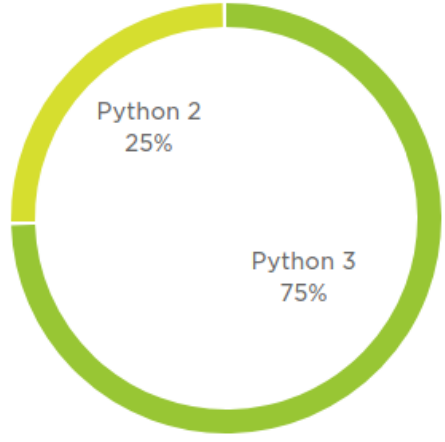
Image courtesy of the Python Developers Survey 2017 Results website

Python 2 vs Python 3

Results are quoted from

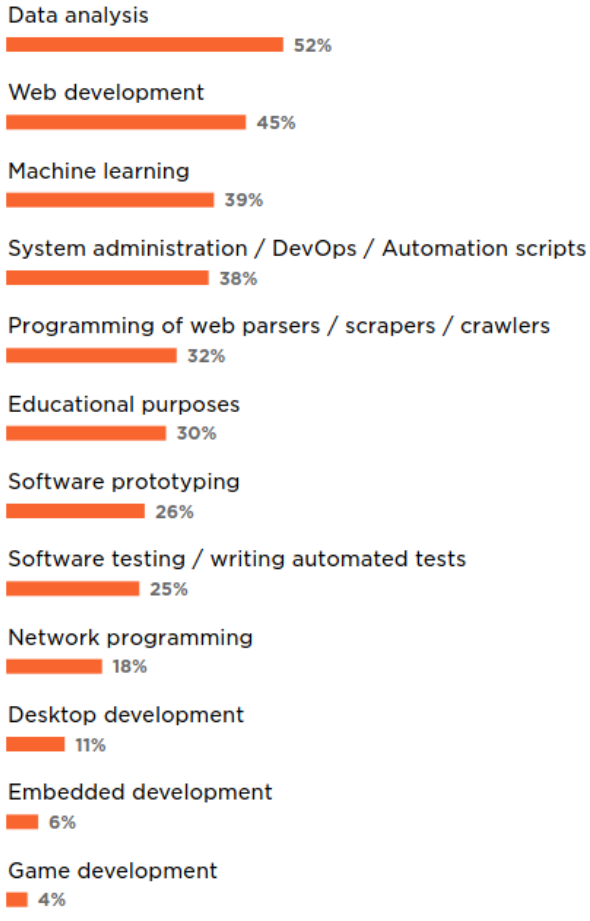
https://www.jetbrains.com/research/devecosystem-2018/python/



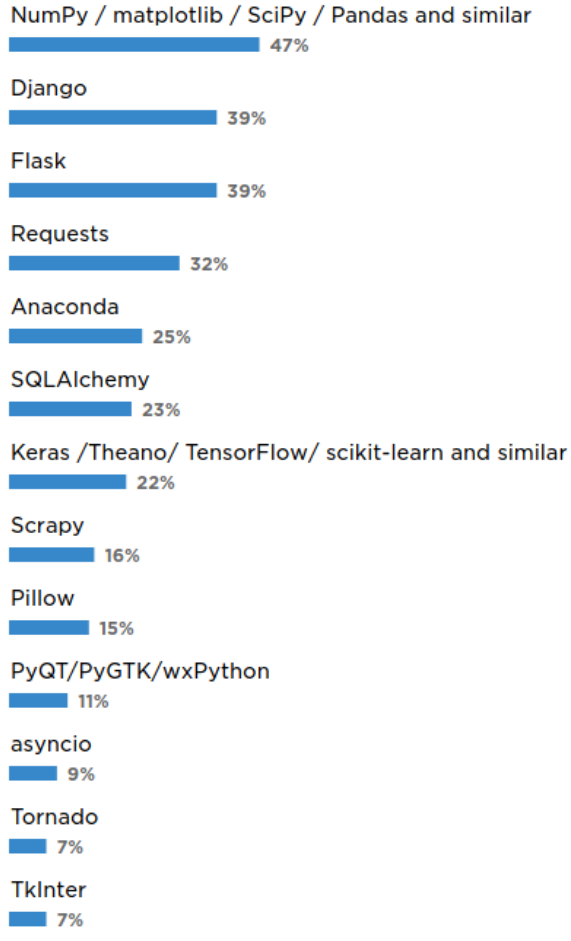


Python Usages

What do you use Python for?



What libraries and/or frameworks do you use in addition to Python, if any?

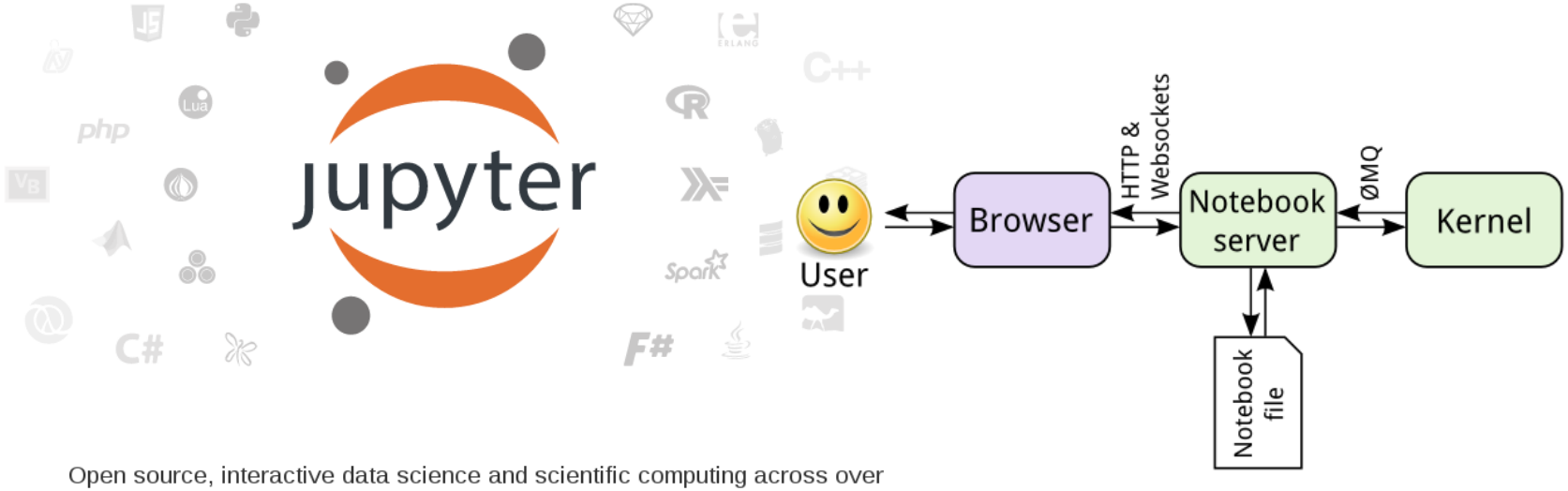


Installation

- Refer to another guide
- Recommendation:
  - Anaconda
  - Google colab

Install packages (with anaconda)

- `conda search xxxxxx`
- `conda install xxxxxx`



Open source, interactive data science and scientific computing across over 40 programming languages.

Open Jupyter in Linux/MacOS

Type

```
jupyter notebook
```