Introduction to Python Bootcamp

Arjun Ray — Instructor
Thomas Brewer — TA

INTRODUCTION

General Info

- bathrooms are back past the elevators and to the left
- this workshop runs from 10 AM - 5 PM
- 30 min lunch at 12 PM, 10 min breaks every hour or so
- free  in the kitchen
-  @ GA-guest – password : yellowpencil
- technical issues?!

Arjun Ray

PAST
ex-academic; worked on Neuroscience and Genomics

CURRENT
full stack programmer
teacher
musician

FAVORITE LANGUAGES
Python, Javascript, Ruby, R, SQL, Lisp, C

Thomas Brewer

PAST
Research / Computational Physics

CURRENT
Data Science TA / Swimmer

VERY NEAR FUTURE
Data Scientist / Back End Developer

FAVORITE LANGUAGES
Python, C++

About You

during this workshop, **you** will learn:

- about python variable types and methods
- about data structures
- about control flow
- about how to write functions
- about how to effectively write python code and think programmatically

WHY PYTHON?

Python is

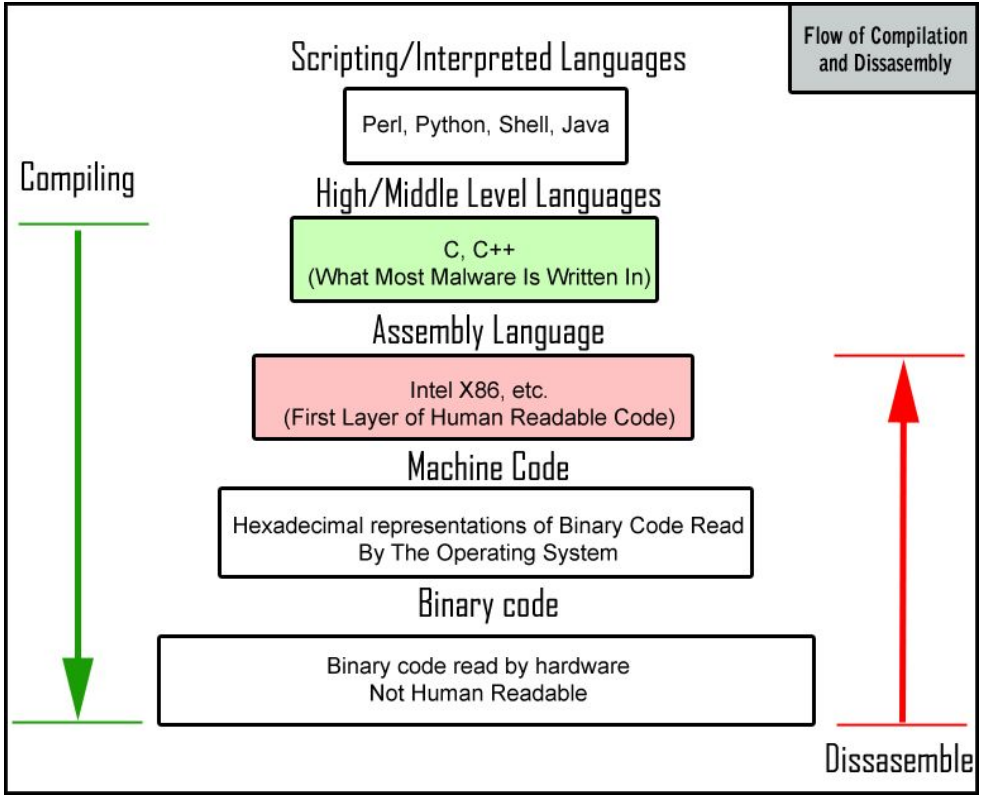
“a programming language that lets you work quickly and integrate systems more effectively”

– python

- high-level programming language for general-purpose programming
- everyone’s second favorite language

Python is

- high level
- general purpose
- dynamically typed
- interpreted
- whitespace sensitive



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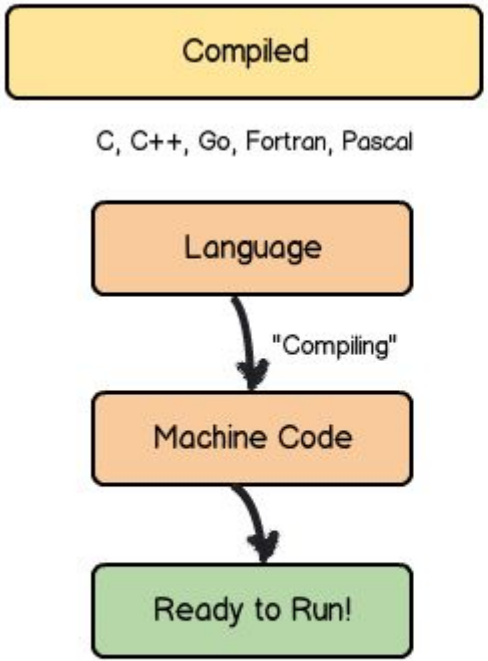

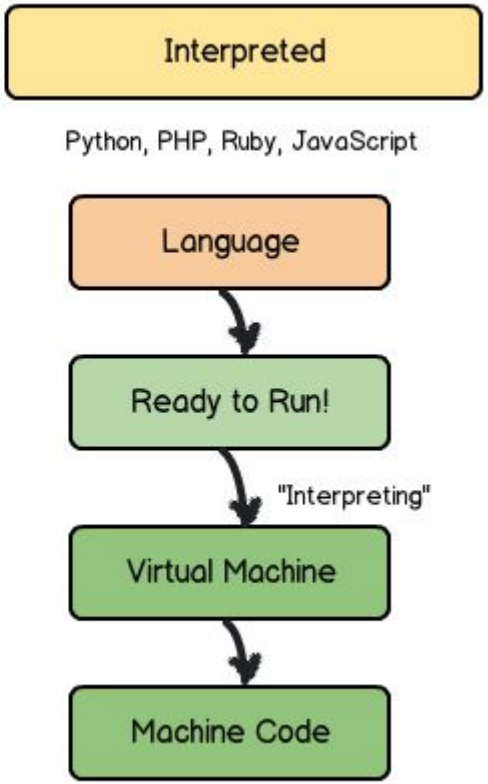

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Who Uses Python?

- a large percentage of programmers
- companies
  - Google
  - Nasa
  - Instagram
  - Youtube

  ...

What Can Python Be Used For

math/science computation

- numpy/scpy/pandas
- matplotlib/seaborn

computer vision

- opencv2

frontend/backend

- Django
- Flask
- nginx

machine learning

- sci-kit/statsmodels/NLTK...

any high level domain you can think of

How we can run code in Python

- REPL – Read-Eval-Print Loop interpreter
- Code Editor of your choice and the Python runtime
- Spyder
- IPython Notebook

Today we will be using the REPL and Sublime Text

please go to this link to get started on the exercises

https://ga.co/2KHcAoO

RECAP & FUTURE GROWTH

Recap

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Future Growth

- Books
  - Python the Hard Way
  - The PEP-8 Python style guide
  - Learning Python (O'Reilly Media)
- there are many great resources for delving deeper:
  - DIY
  - bootcamps
    - Data Science Immersive (General Assembly)
    - Data Science Part-Time (General Assembly)
  - online resources
    - Udemy, Codeacademy, Codewars, Rosalind

Q&A