Course Overview

PLEASE DON'T SKIP THIS LECTURE

Complete Python Bootcamp

- Course Overview Lecture
  - Useful tips for going through the course
  - How to get help during the course
  - Advice on how to approach the course
  - Where to find the course notebooks
  - How to use the student chat channel

Useful Tips

- Use the gear setting to speed up or slow down videos.
- Use the Udemy App to download videos of course lectures.
- Make sure to make use of QA Forums, lots of previous discussion available there!

How to get help

- Double check against course notebooks
- Quick Google or StackOverflow Search
- Search the QA Forums in the course
- Check out FAQ lecture
- Submit new question in QA forums
  - Details on what you've tried
  - Screenshot of error or code

How to get help

- Platform level issues please email:
  - **info@pieriantraining.com**
    - Video playback issues
    - Certification issues
    - Payment issues

How to approach course

- Best way to approach the course is review the notebooks along with the video
  - Beginners: Read extra notes in the notebook along with the video guide.
  - Experienced: Read the notebooks to see if you only need to review certain parts of the video lecture.

Course Notebooks

- Check your Automated Welcome message for the link to the notebooks.
- Later on we will review how to download and open them **Running Python Code** lecture.
- Link is also in the FAQ lecture.

Student Chat Channel

- Use the link in the automated welcome message to join our discord server.
- The automated welcome message also includes a link to a YouTube video describing how to use and log in to the chat server.

Student Chat Channel

- Remember, purpose of chat channel is to connect students with other students.
- Technical questions related to course material are best suited for the QA forums.

THANK YOU!

Python 2 vs Python 3

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- Choosing between Python 2 vs 3 used to be a very difficult decision for newcomers to the Python programming language.
- Many companies still had legacy Python 2 code to be maintained.

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- This course was initially released teaching both versions of Python (2 and 3).
- The versions were similar enough that it was easy to learn both simultaneously.
- Now every major external python package has been updated to support Python 3!

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- This course now focuses solely on Python 3.
- All the code, notebooks, and videos have been updated to Python 3.
- If need be, going back to Python 2 syntax is a very easy jump once you know Python 3.

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- Python 3 is the future of Python.
- We use Python 3 for this course.
- Old notebooks are available in case you need Python 2 information.
- Let’s get started by installing Python 3!

Command Line Crash Course

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- Before we install anything, its important to have a very quick overview of how to work at the command line.
- This allows you to programmatically move through your computer's directories.

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- We will cover:
  - Find your current directory
  - Listing all files in a directory
  - How to change directory
  - How to clear the command line screen

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- MacOS and Linux Users

  Jump to:

- Windows Users

  Jump to:

Python Overview

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- In this lecture we will do a brief overview of what Python is, why choose Python for programming, and what you can do with Python.
- This lecture in particular is geared towards people new to programming.

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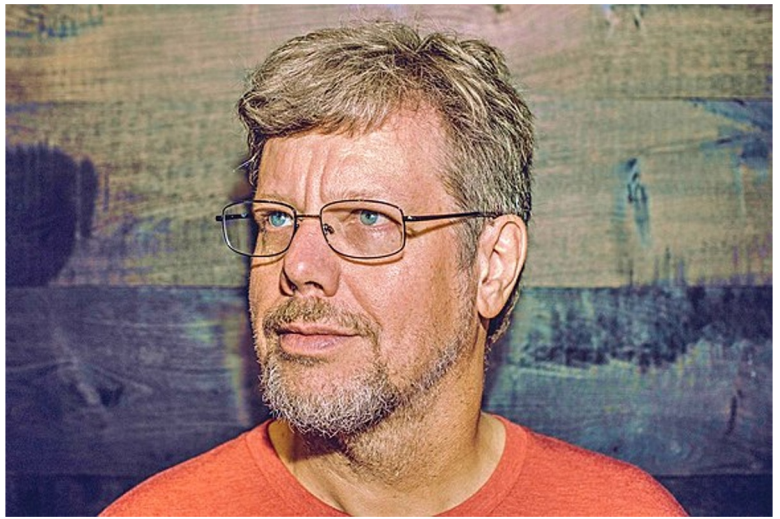
- Brief History of Python
  - Created in 1990 by Guido van Rossum
  - Python 3 released in 2008



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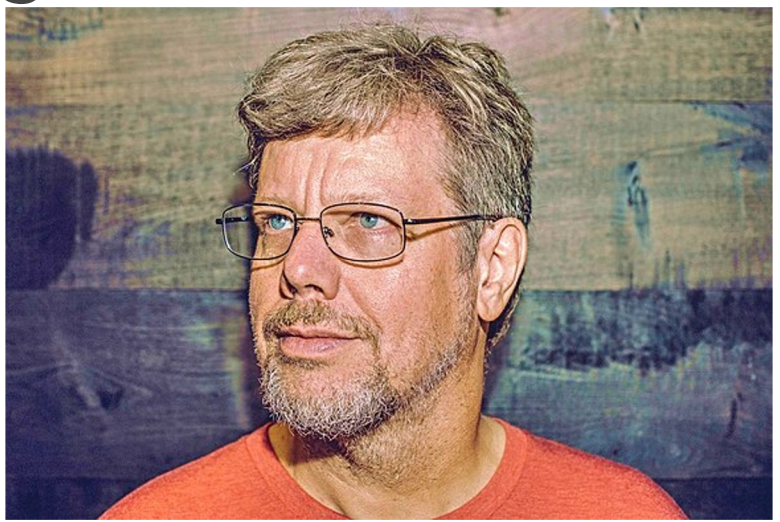
- Brief History of Python
  - Specifically designed as an easy to use language
  - High focus on readability of code



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- Why Choose Python?
  - Designed for clear, logical code that is easy to read and learn.
  - Lots of existing libraries and frameworks written in Python allowing users to apply Python to a wide variety of tasks.

Complete Python Bootcamp

- Why Choose Python?
  - Focuses on optimizing developer time, rather than a computer's processing time.
  - Great documentation online:
    - **docs.python.org/3**

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- What can you do with Python?
  - This course first focuses on “base” Python, which consists of the core components of the language and writing scripts and small programs.
  - Later we begin to learn about outside libraries and frameworks that greatly expand Python’s capabilities.

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- What can you do with Python?
  - Automate simple tasks
    - Searching for files and editing them
    - Scraping information from a website
    - Reading and editing excel files
    - Work with PDFs
    - Automate emails and text messages
    - Fill out forms

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- What can you do with Python?
  - Data Science and Machine Learning
    - Analyze large data files
    - Create visualizations
    - Perform machine learning tasks
    - Create and run predictive algorithms

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- What can you do with Python?
  - Create websites
    - Use web frameworks such as Django and Flask to handle the backend of a website and user data
    - Create interactive dashboards for users

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- Once you understand base Python and begin working with a few libraries, you'll quickly begin to see the vast potential Python has for your own projects!
- Let's get started with setting you up for the course!

Windows Command Line

MacOS and Linux Command Line

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Installing Python

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- There are many ways to run Python!
- Later on we'll explore the difference between running a Python .py script or running Python code in a notebook environment.
    - ***Either way, we will still want to install Python!***

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- Installation Lecture:
  - Install Anaconda Distribution for Python.
    - Anaconda installs Python **and** an easy to use development environment and navigator launch tool.
  - Briefly run Jupyter Notebook.
  - Explore “no install” online options.

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- Quick Note:
  - There are now many online “no install” Python environments that can run in the browser (as long as you have an internet connection).
  - While not officially part of the course, we will give you a brief tour of these online “no install” options at the end.

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- To install Python we will use the free Individual Anaconda distribution.
- This distribution includes Python as well as many other useful libraries, including Jupyter Notebook environment.
- Anaconda can also easily be installed on to any major OS, Windows, MacOS, or Linux.

www.anaconda.com/downloads

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- **Free “No Install” Options:**
  - jupyter.org/try
  - Google Collab Online Notebooks
  - Repl.it
    - Google Search:
      - “Python Interpreter Online”

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- Free “No Install” Options:
  - *Hard to upload your own code,data, or notebooks!*
  - *May not save your code in the free version!*
  - *Not officially part of this course or supported by this course!*

Running Python Code

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- There are several ways to run Python code.
- First let's discuss the various options for development environments
- There are 3 main types of environments:
    - Text Editors
    - Full IDEs
    - Notebook Environments

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- Text Editors
  - General editors for any text file
  - Work with a variety of file types
  - Can be customized with plugins and add-ons
  - Keep in mind, most are not designed with only Python in mind.

Most popular: Sublime Text and Atom

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- Full IDEs
  - Development Environments designed specifically for Python.
  - Larger programs.
  - Only community editions are free.
  - Designed specifically for Python, lots of extra functionality.

Most popular: PyCharm and Spyder

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- Notebook Environments
  - Great for learning.
  - See input and output next to each other.
  - Support in-line markdown notes, visualizations, videos, and more.
  - Special file formats that are not .py

Most popular is Jupyter Notebook.

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- Most important note:
  - Development Environments are a personal choice highly dependent on personal preference.

Choose whichever development environment you prefer!

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- Let's now explore how to run Python code:
  - First with an editor to create a .py script and run the file at your command line.
  - Then with a Jupyter Notebook.

First let's download sublime text editor:

www.sublimetext.com

Course Notebooks

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Let’s show you how to get the course notebooks!

Go to the resource link:

https://github.com/Pierian-Data/Complete-Python-3-Bootcamp