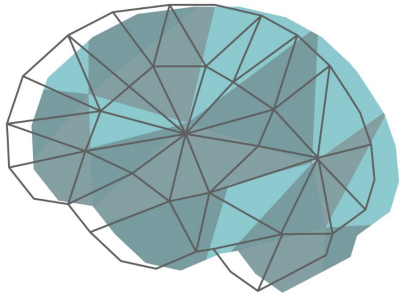

Brainhack Magdeburg
07.-08.12.2021

Introduction to Python

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cbbs graduate program

About me

Education: Master's student in Integrative Neuroscience at OvGU

Current position: Research assistant at OvGU

Work experience:

- In a Data Science field since 2018
- 1.5 years of experience in teaching Python programming

Interests:

- Decisions, beliefs and emotions
- Affective disorders
- Bayesian statistics

Twitter: @ruslan_kl

Objectives

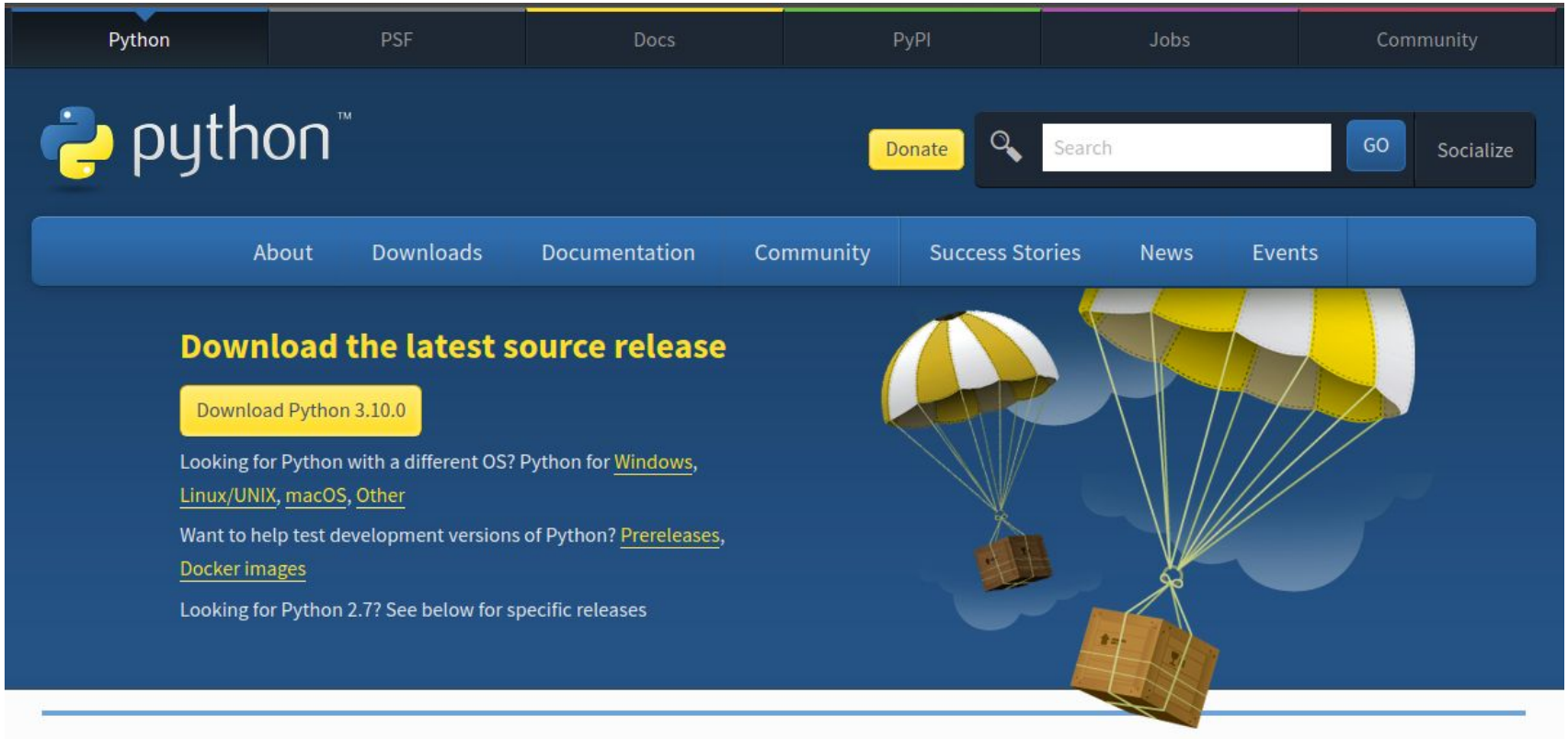
- How to get started with learning Python
- What are the best educational resources
- Some basic coding guidelines

Why Python?

- English-like syntax
- General-purpose programming language
- Open-source
- Interpreted language

How to install Python? (1/2)

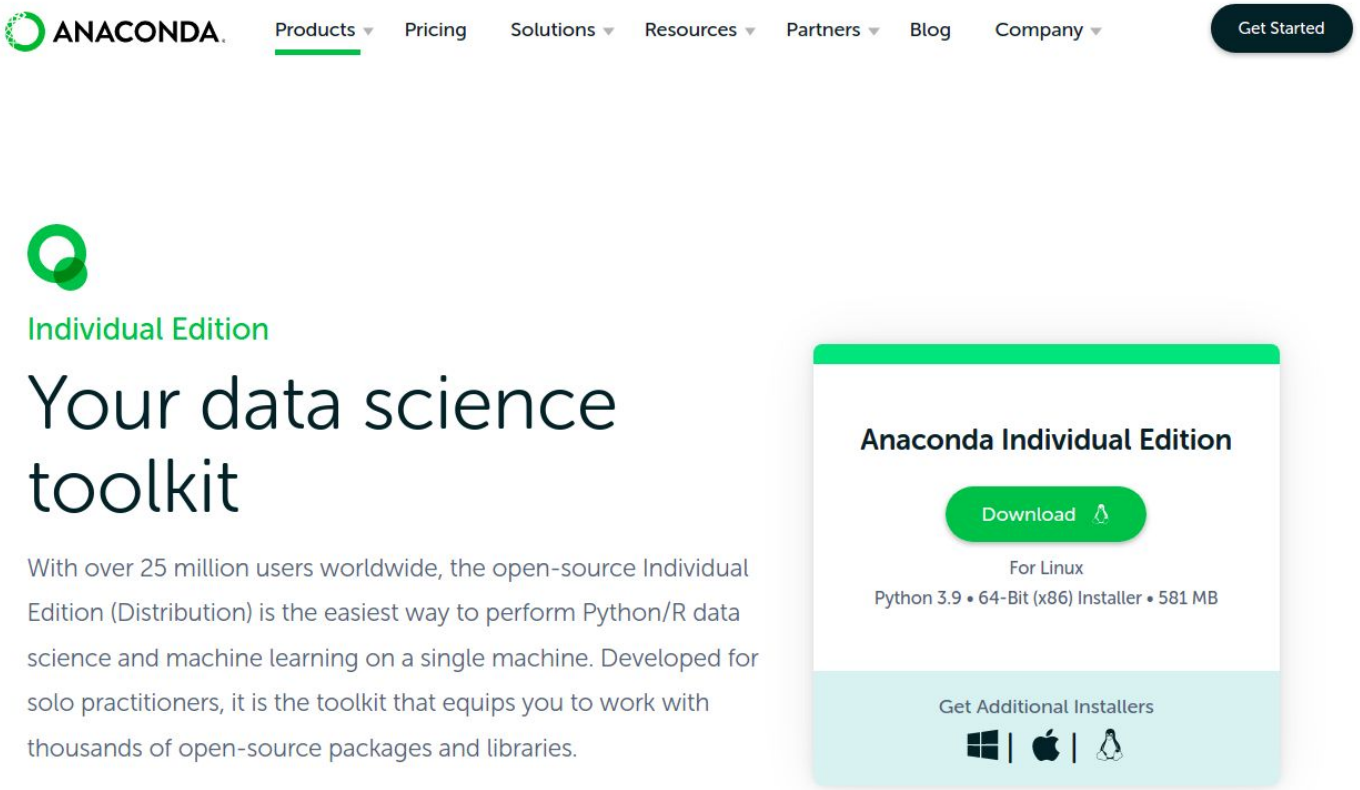
Official Python Website: https://python.org



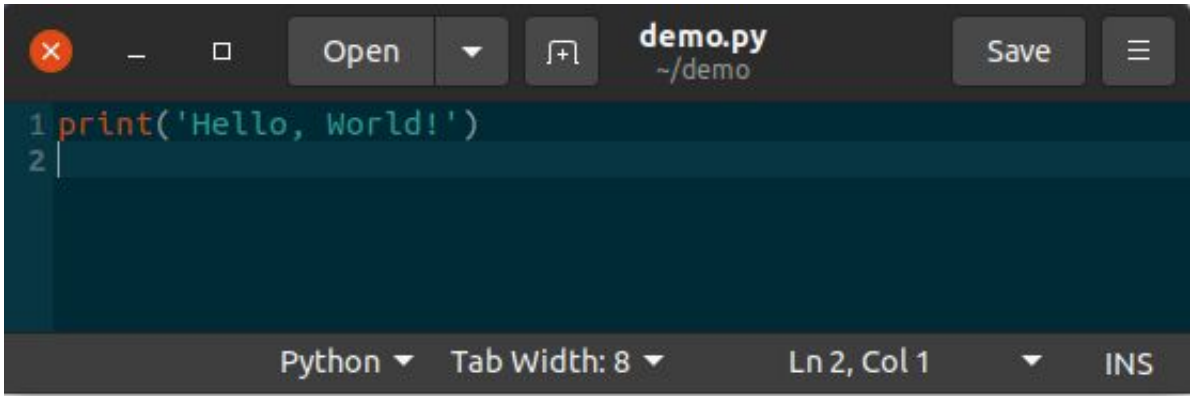
How to install Python? (2/2)

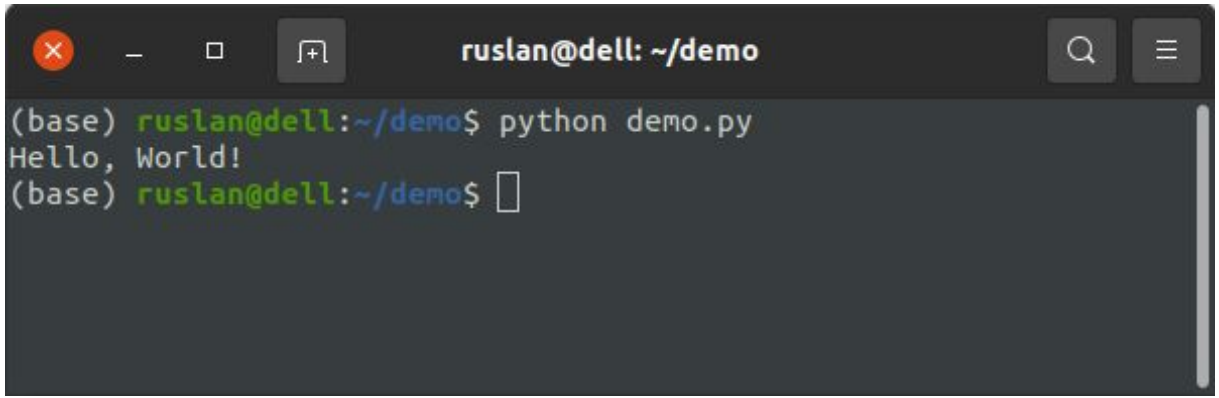
Anaconda: The World's Most Popular Data Science Platform

https://anaconda.com

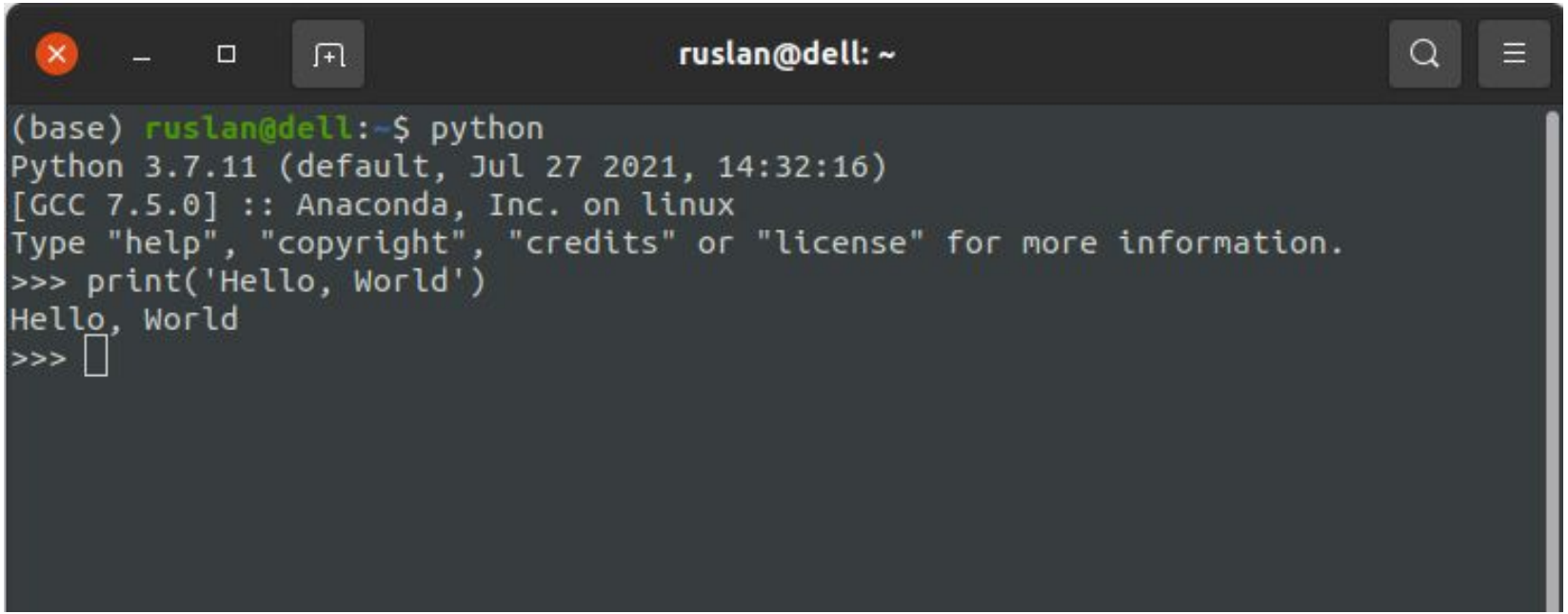


How to get started: Writing scripts



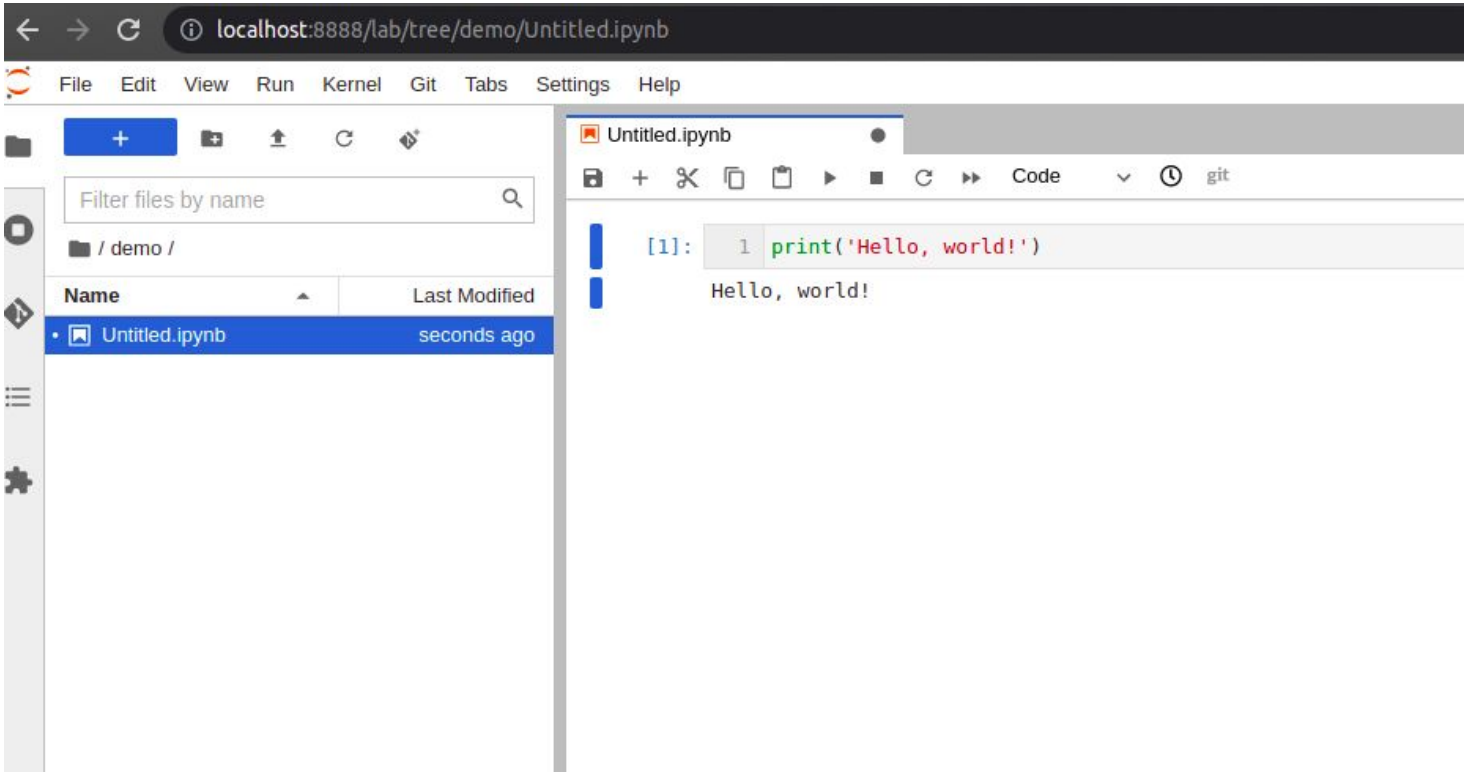


How to get started: Coding from a Terminal



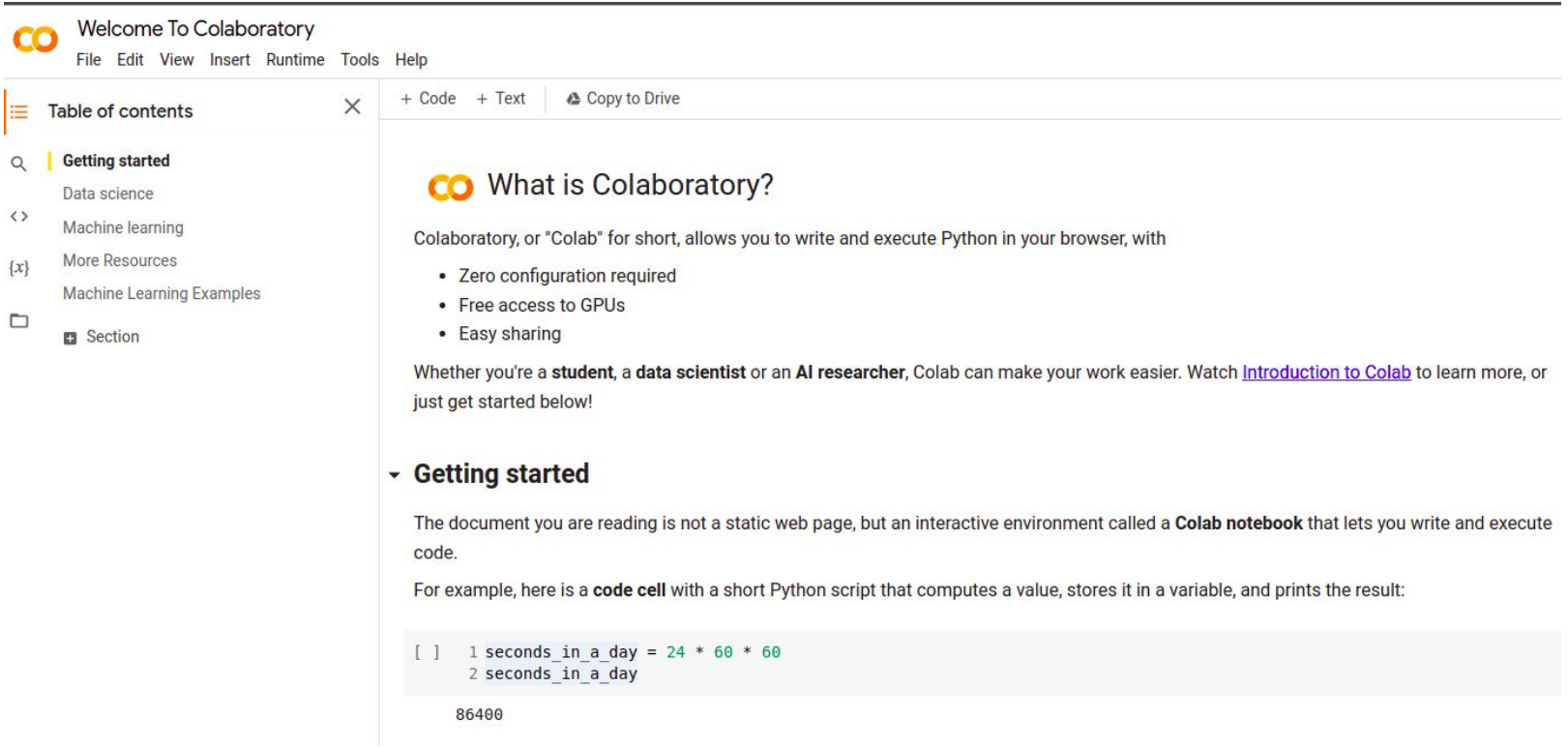
How to get started: Jupyter Notebooks

https://jupyter.org



How to get started: Google Colaboratory

https://colab.research.google.com



How to get started: DataSpell ($*)

https://jetbrains.com/dataspell

Intelligent Jupyter notebooks

Tuned for high interactivity

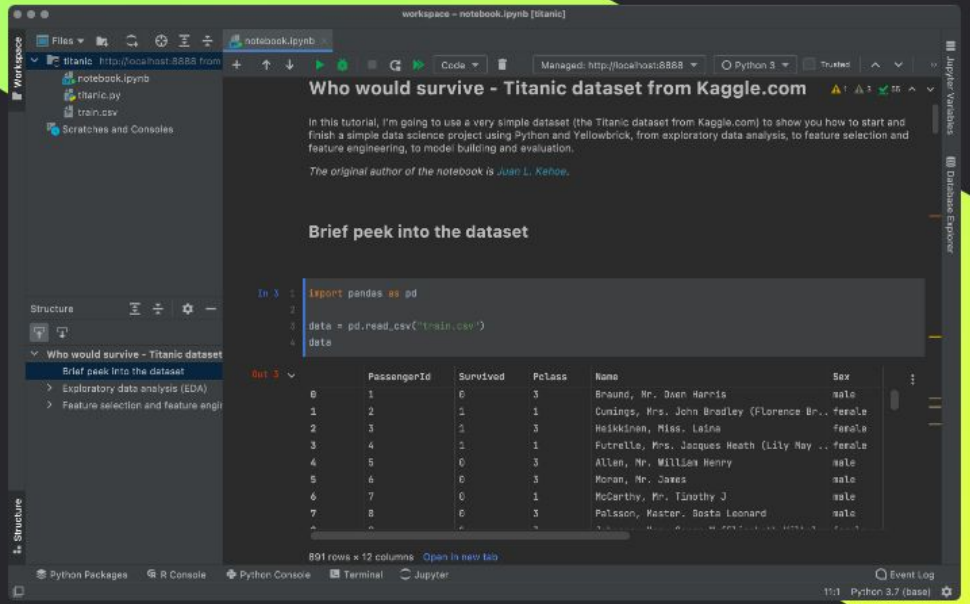
Switch between command and editor modes with a single keystroke. Navigate over cells with arrow keys. Use all of the standard Jupyter shortcuts. Enjoy fully interactive outputs – right under the cell.

Smart coding assistance

When editing code cells, enjoy smart code completion, on-the-fly error checking and quick-fixes, easy navigation, and much more.

Local and remote notebooks

Work with local Jupyter notebooks or connect easily to remote Jupyter, JupyterHub, or JupyterLab servers right from the IDE.



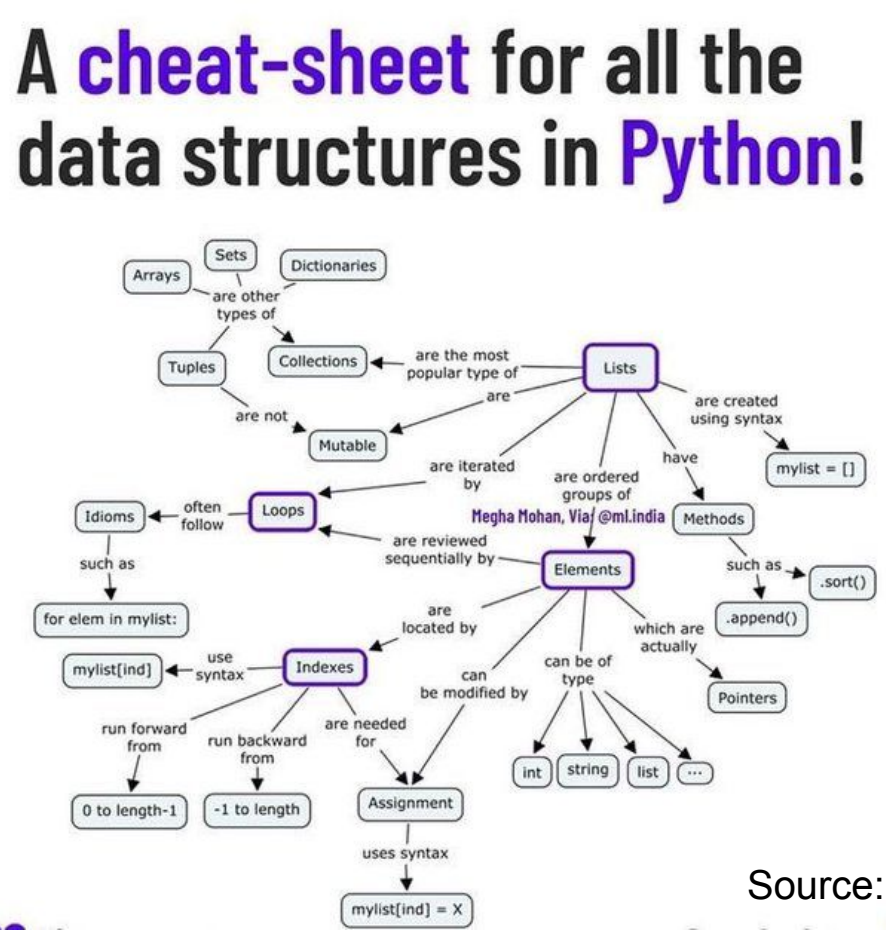
Where to get help?

1. Documentation
2. Stack Overflow https://stackoverflow.com/
3. Awesome Python https://awesome-python.com/
4. Cheat Sheets https://datacamp.com/community/data-science-cheatsheets
5. Kaggle https://kaggle.com/
6. ...

Resources to learn Python

1. Kaggle courses: https://kaggle.com/learn/python
2. Python for Neuroscience course: https://pyforneuro.com
3. DataCamp ($): https://datacamp.com/
4. Neuromatch Academy Computational Neuroscience: https://compneuro.neuromatch.io/tutorials/intro.html
5. YouTube
   a. Jupyter Notebook Tutorial: https://youtube.com/watch?v=HW29067qVWk
   b. Learning to program with Python 3 (by sentdex): https://youtube.com/playlist?list=PLQVvvaa0QuDeAams7fkdcwOGBpGdHpXln
   c. …
6. ...

Basic coding



Source: @DataScienceDojo

Q&A