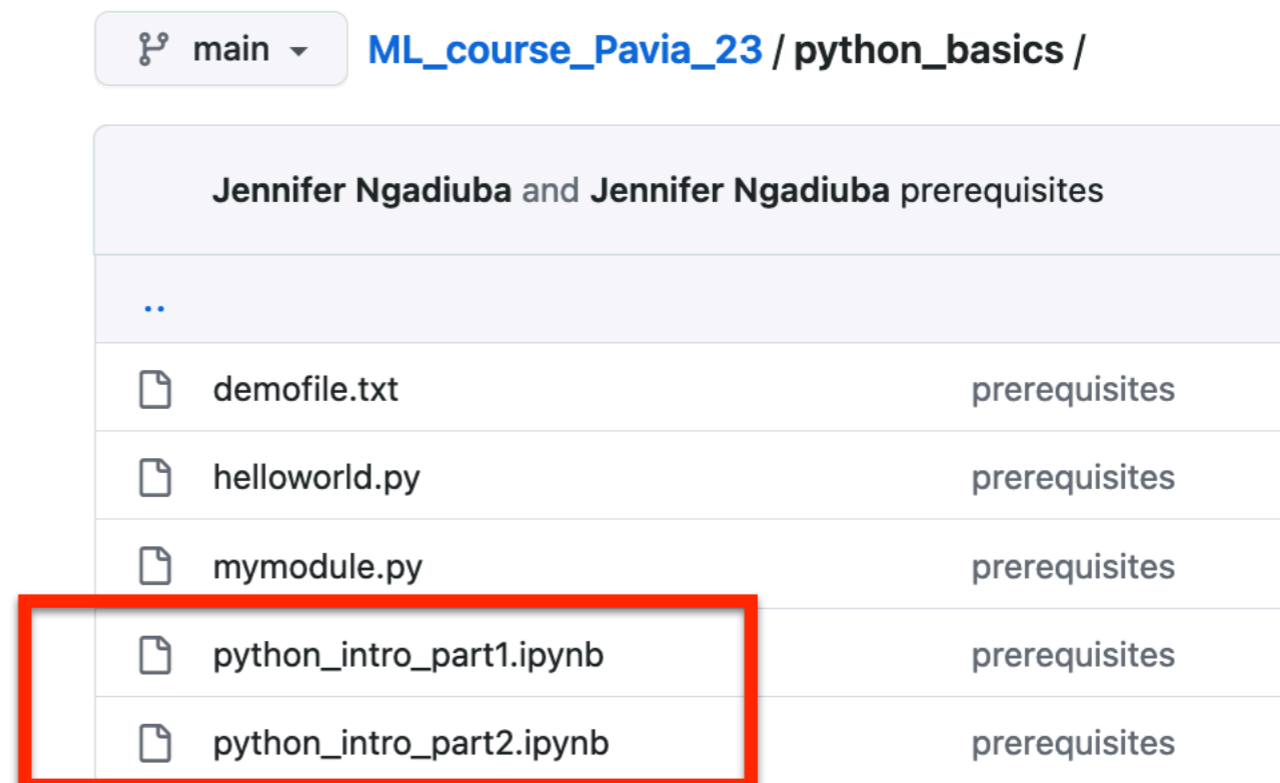


Setup

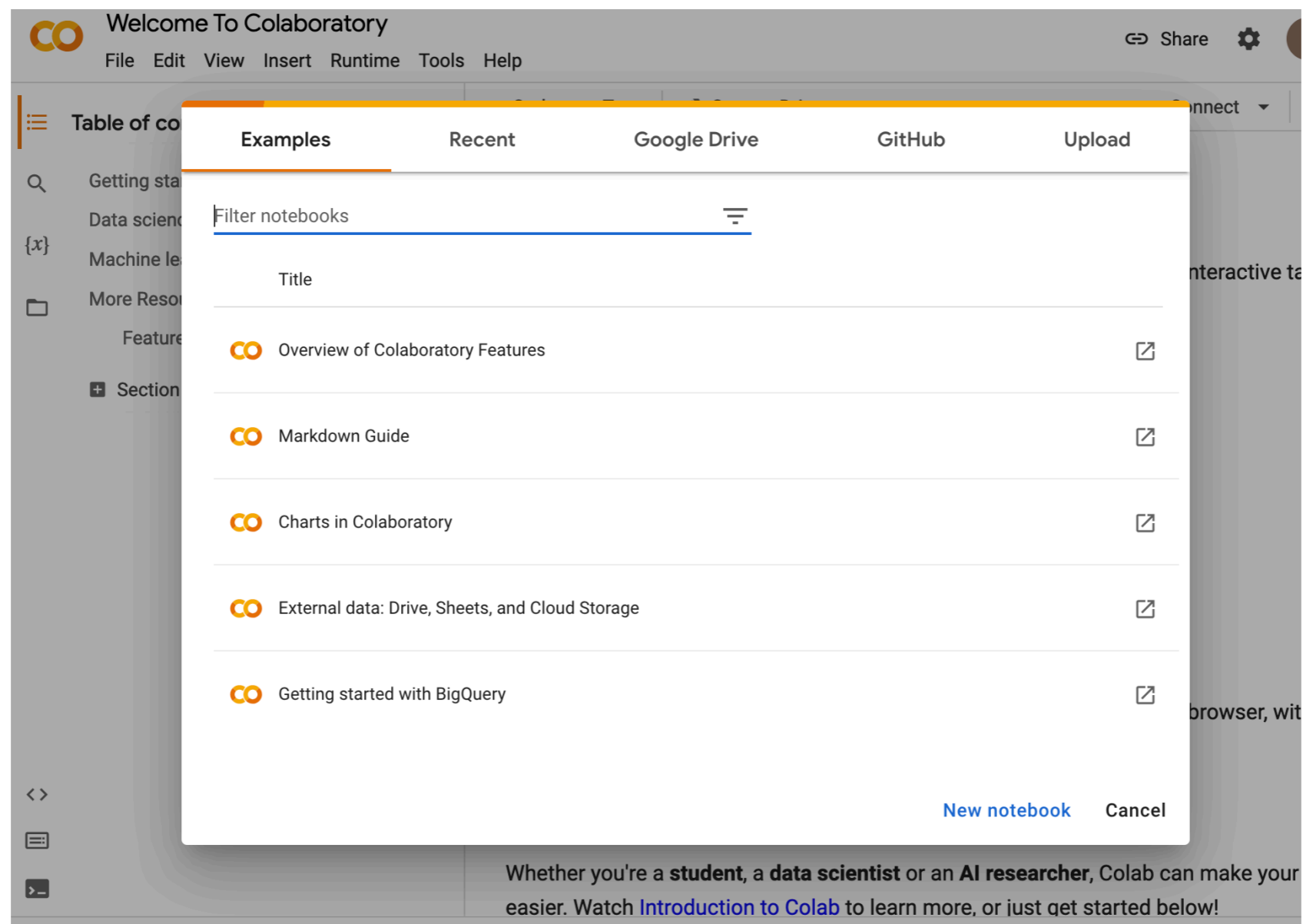
- We will be using **Colab** to run the hands-on part:
 - **Colab** is a free platform developed by Google to execute code on the cloud
nb, you will need a google account
- In both setups: the interactive part is served with Python notebooks through **jupyter**
- If you're new to jupyter notebooks, select a cell and hit "shift + enter" to execute the code
 - jupyter is rather intuitive but for a full tutorial see [here](#)



Running tutorial notebooks in Colab

Step 1: open notebook

- Make sure you have a Google account
- Go to: <https://colab.research.google.com/>






Step2: import from github

- Click on the GitHub tab
- Specify the repository `https://github.com/AdrianAlan/codas-hep-intro-ml-2023`
 - if you are experienced with github you can instead specify your own fork such that you will be able to save any changes you might apply to the original course while being in synch
- Click on one of the `.ipynb` notebooks




Examples Recent Google Drive **GitHub** Upload




Enter a GitHub URL or search by organization or user Include private repos

jngadiub 

Repository:  jngadiub/ML_course_Pavia_23 Branch:  main

Path

 python_basics/python_intro_part1.ipynb  

 python_basics/python_intro_part2.ipynb  

Step3: use GPUs

The screenshot shows a Jupyter Notebook titled 'python_intro_part1.ipynb'. The 'Runtime' menu is open, displaying various execution options. The 'Change runtime type' option is highlighted. The notebook content includes an introduction to Python, mentioning it was created by Guido van Rossum in 1991, and a list of applications such as web development, software development, mathematics, and system scripting. A section titled 'What can Python do?' lists capabilities like handling big data and rapid prototyping.

python_intro_part1.ipynb

File Edit View Insert Runtime Tools Help

+ Code + Text

Introduction to Python

Based on [W3Schools tutorial](#)

Python is a popular programming language, created by Guido van Rossum, and released in 1991.

It is used for:

- web development
- software development
- mathematics
- system scripting

What can Python do?

- can be used on a wide variety of platforms
- can be used alongside software to create workflows
- can connect to database systems
- can read and modify files
- can be used to handle big data and perform complex mathematics
- can be used for rapid prototyping, or for production-ready software development

The 'Notebook settings' dialog box is shown, with the 'Hardware accelerator' dropdown menu open. The 'GPU' option is selected. The dialog also features a 'Cancel' button and a 'Save' button.

Notebook settings

Hardware accelerator

- ✓ None
- GPU
- TPU

Cancel Save