

Moving my computer labs online

If you are doing your computer labs with **Python, R, C or Octave**, then your students can use our centralized JupyterLab platform noto to **write and execute their code online without having to install anything** on their computer.

<https://noto.epfl.ch>

Noto

You share the lab worksheet with students as you would usually do, for instance with moodle



Students work with noto
[More details here](#)



Students download their notebook from noto and submit it to you
[More details here](#)



You collect students notebooks and execute them in noto
[More details here](#)

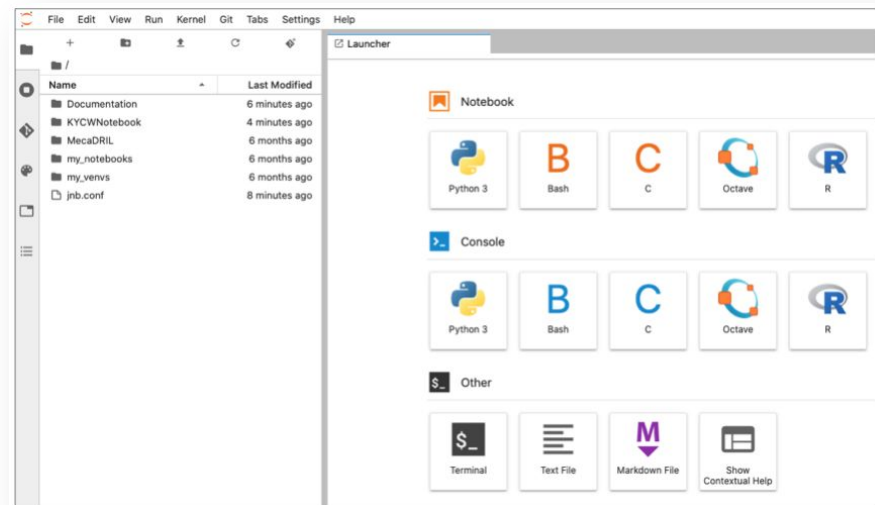
Students work with Noto

- Students go to <https://noto.epfl.ch> with their web browser
- They connect with their GASPAR login.
- They arrive on their personal online workspace (image right).

Note: it is best if students use a computer or a laptop (**not** a tablet or a smartphone).

The following slides describe more in details how to:

- [Create a notebook](#)
- [Execute code in a notebook](#)
- [Organise notebooks](#)

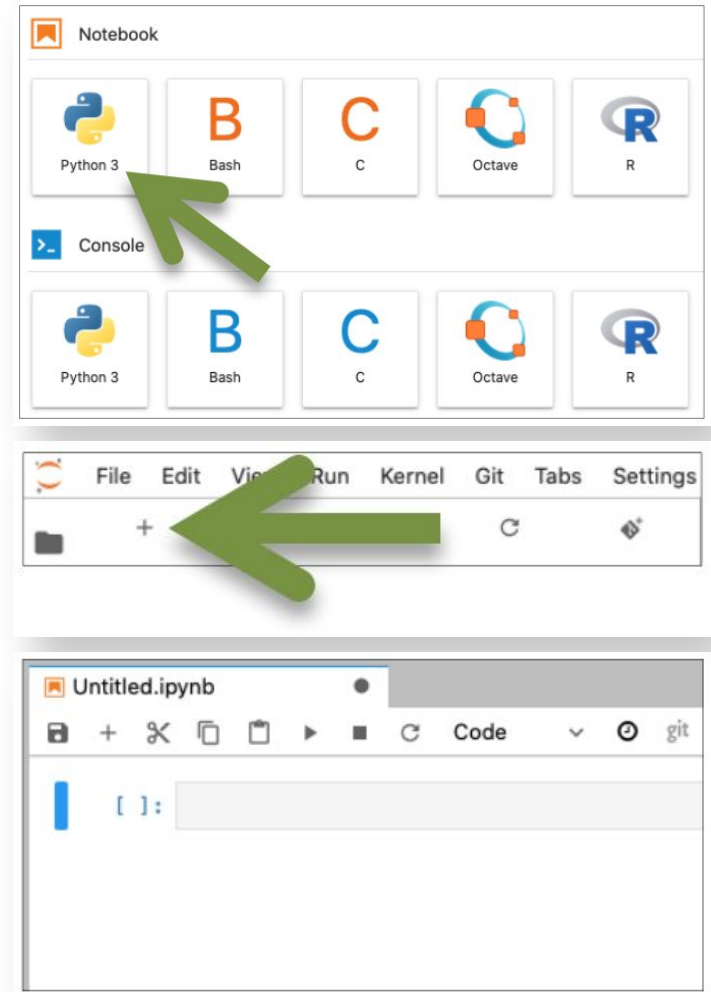


Don't forget to [provide students with support](#) during the online lab!

Creating a “notebook”

- Select a **programming language** in the “Launcher” welcome page or by clicking on the “+” icon in the toolbar at the top left.
- This will create an **empty notebook** configured with the appropriate kernel (i.e. the engine that executes code)

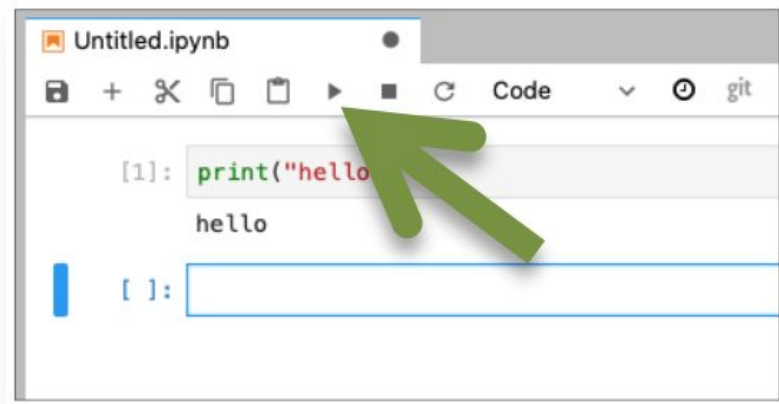
Example: to create a notebook for Python, select “Python 3” in the launcher, as illustrated on the right.



Executing code in a notebook

- **Type your code** in the “cells” of the notebook.
 - You can create new cells by clicking on the “+” icon in the toolbar
- To **execute**:
 - Click on “play” icon in the toolbar at the top of the notebook or
 - Or use the keyboard shortcut “ctrl+enter”.
- The **result** will be displayed just below the cell.

Example: the code on the right displays the text “hello” in Python.



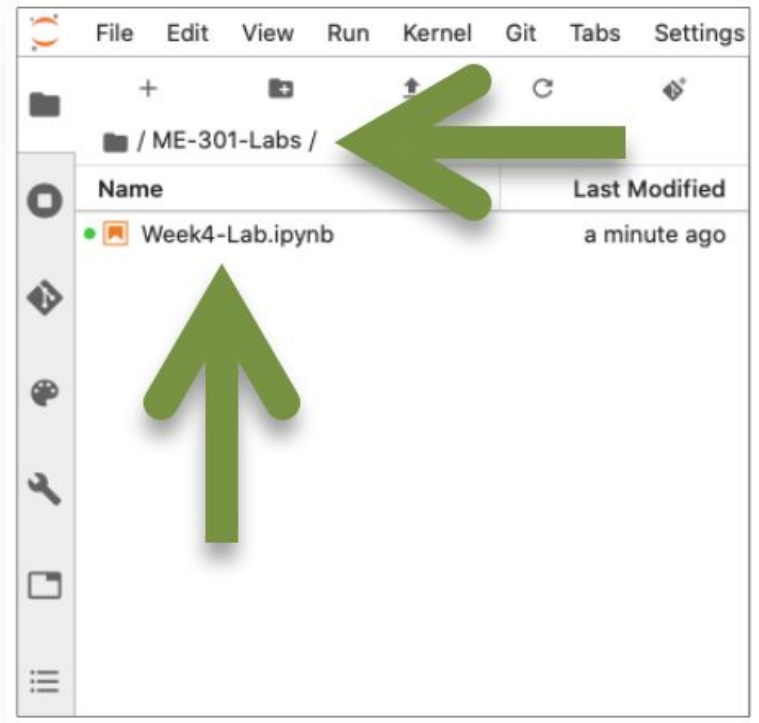
For a more detailed guide on how to use notebooks, see:

<https://go.epfl.ch/noto-notebook-quickstart>

Organising notebooks

- Notebooks can be **renamed** and **organized** into folders just as you would do on a computer.
- The left pane of the window lets you create new folders and move files by drag and drop, by using the toolbar or by right-clicking on elements.

Example: you could advise students to create a folder “ME-301-Labs” and name the notebook “Week4-Lab”, as illustrated.



Supporting students during the lab

It is important that students have a way to **ask questions** to your or to your TAs during the online lab.

You can:

- Create a **discussion forum** on moodle
- Use Zoom to hold **live video meetings**, with the help of your TAs

More details in the documentation here:

<https://go.epfl.ch/online-lecturing-exercises>

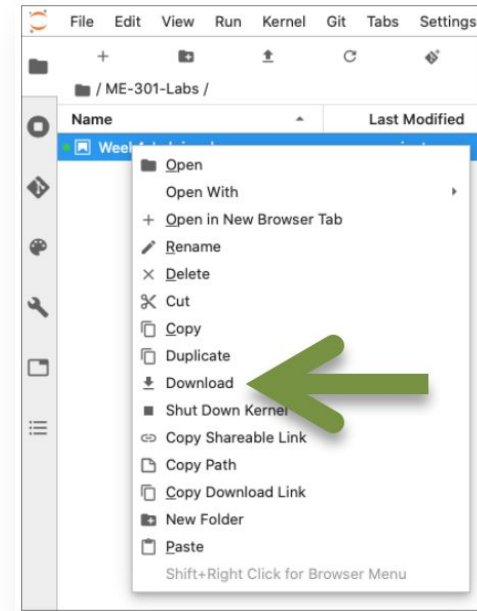
Downloading and submitting a notebook

To **download their work** on their own computer, students have to:

- Right click on the notebook in the left pane
- Select “Download” as illustrated
- Save the file on their computer
- The file will appear in their filesystem as “Week4-Lab.ipynb”

A notebook is a *simple text file* so students can **submit their notebook** to you by any mean you have chosen (moodle, email...).

See on the next slide how to manage students assignments with moodle.



Note: notebooks created on noto **remain in students' workspace permanently** (unless deleted) and can be found back online at each connection.

Managing student assignments using moodle

Moodle “assignment” activities are a very helpful way to manage learning tasks that students have to submit to you:

- Students can submit their work by uploading files on moodle
- You can set up a deadline for submission
- You can retrieve student work by downloading their file
- You can also give students feedback and grade them directly online.

For more information on how to use the “assignment” feature of moodle, see [Moodle Quick Start Guide](#). A [detailed documentation on Moodle assignments](#) is also available.

Moodle Quick Start Guide:

- Starting with Moodle 3.5
- For Teachers
- For Students

Mail your MoodleDesk:

- 1234@epfl.ch

Call to ServiceDesk:

- Int: 1234
- Ext: +41 (0)21 693 1234

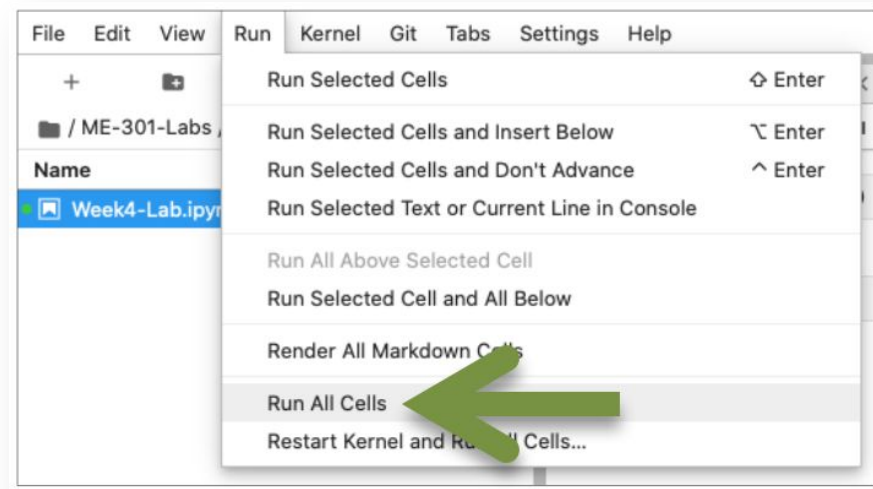
Access Moodle via EPFL Campus

- Pocket Campus



Running student's notebooks for assessment and feedback

- **Retrieve** the student notebook file
- Connect to noto in your web browser,
- Drag and drop the file onto your workspace in the left pane of the window
- **Execute** the code in the notebook:
 - Select a cell and click on the “play” icon
 - Or use the keyboard shortcut “ctrl+enter”
 - All the code cells of a notebook can be run in one click by using the menu “Run”>”Run all cells”.



Getting help on noto

If you need support on noto:
nota-support@groupe.epfl.ch

- If you need **specific libraries**, please test if they are already installed on noto.
If not, please send us an email:
nota-support@groupe.epfl.ch
- If your class has **more than 50 students**, **please let us know** so that we can assist and monitor the load on the server.

More information on noto:
<http://go.epfl.ch/notebooks>