

GGO00124 - INTRODUÇÃO À PROGRAMAÇÃO PARA GEOCIENTISTAS - A1

Fundamentos de Python

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Como programar em Python?

- Como um programa é organizado?
- Quais são os tipos de dados disponíveis?
- Como variáveis podem ser declaradas?
- Como atribuir valores às variáveis?
- Como entrada e saída básica de dados podem ser feitas?

Como programar em Python?

- Mas antes...

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- Mas antes...
 - Como usar o python através Jupyter Notebook

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 - Outra IDE (Integrated Development Environment)

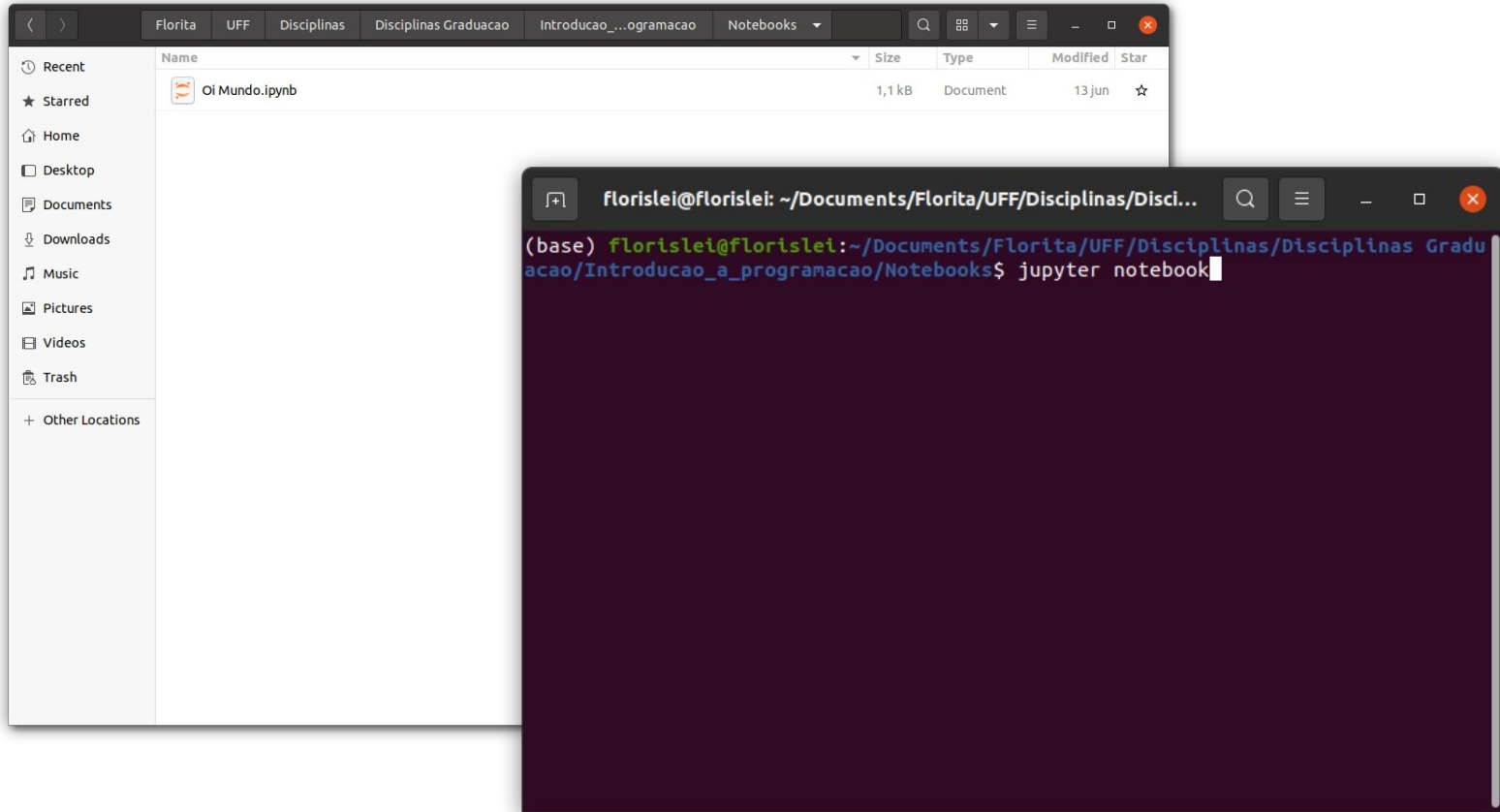
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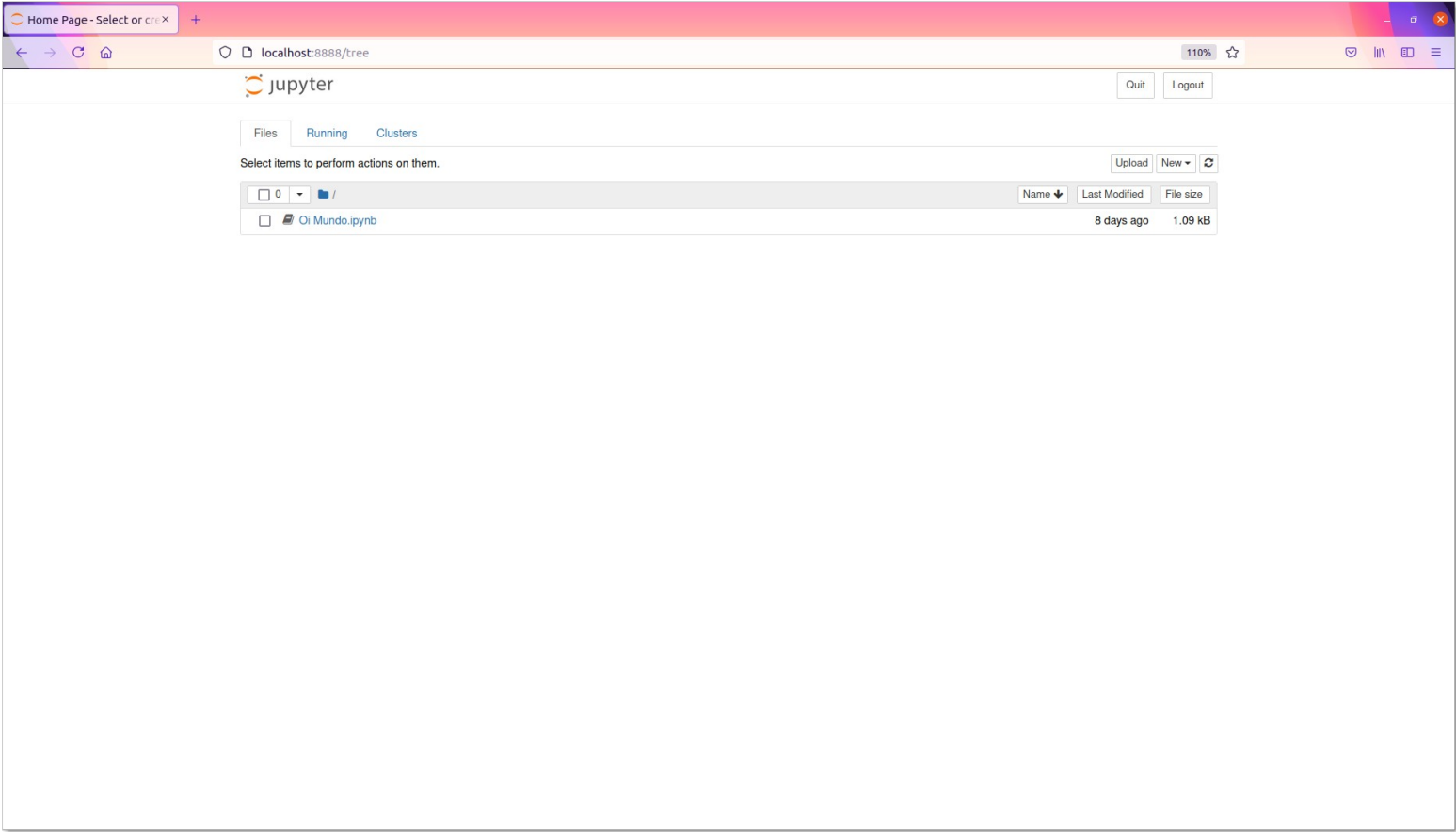
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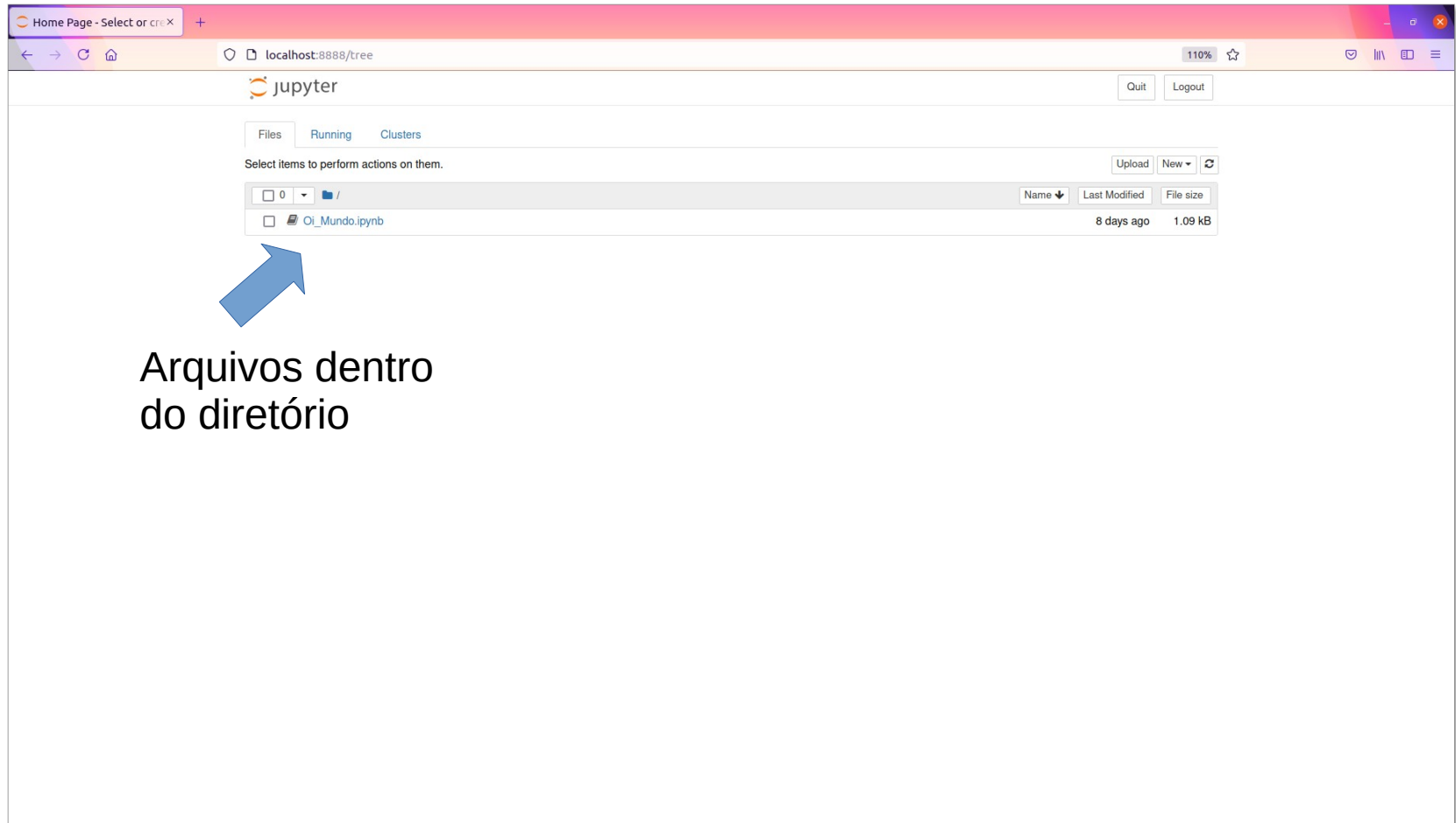
Jupyter Notebook



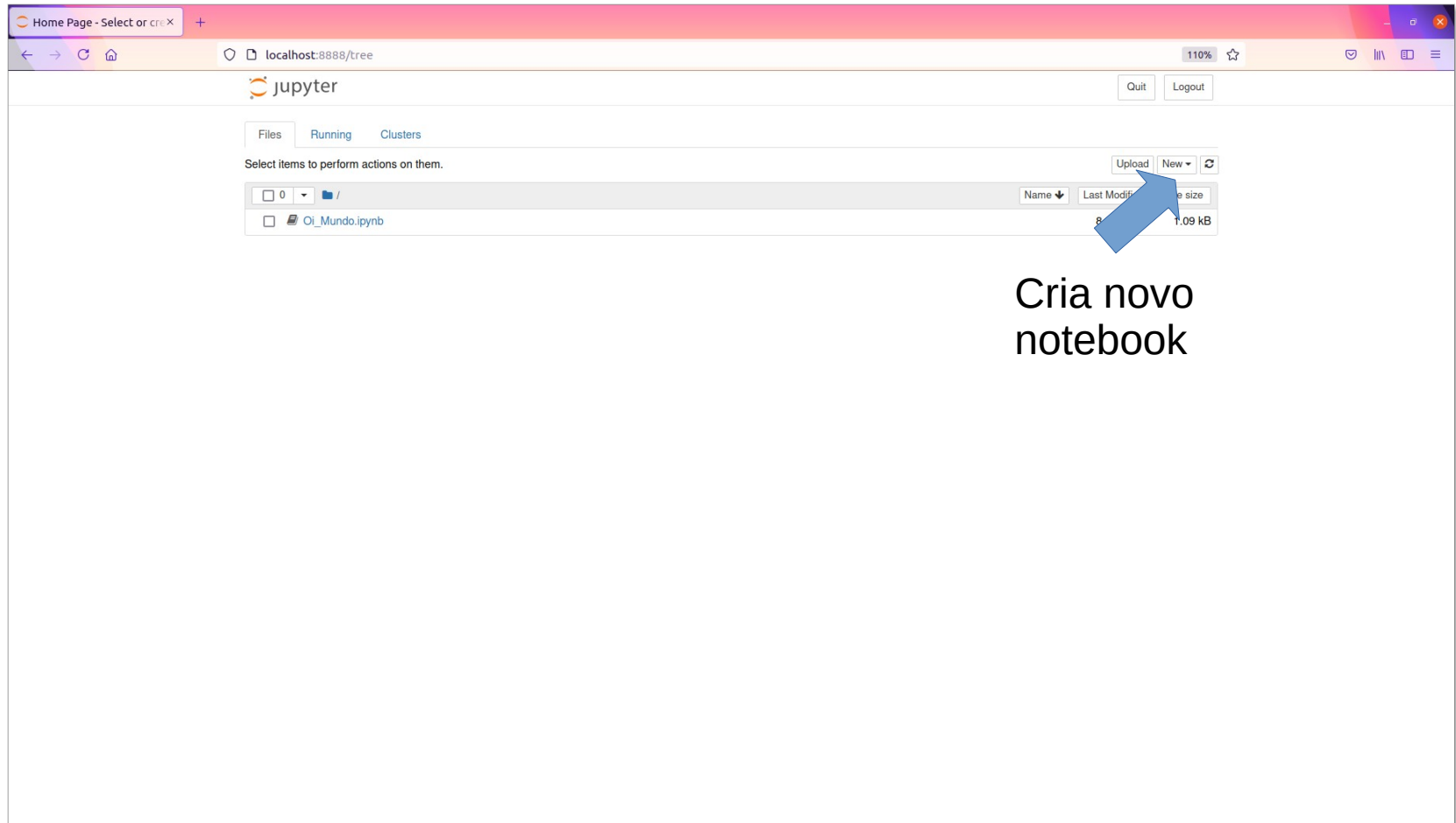
Jupyter Notebook



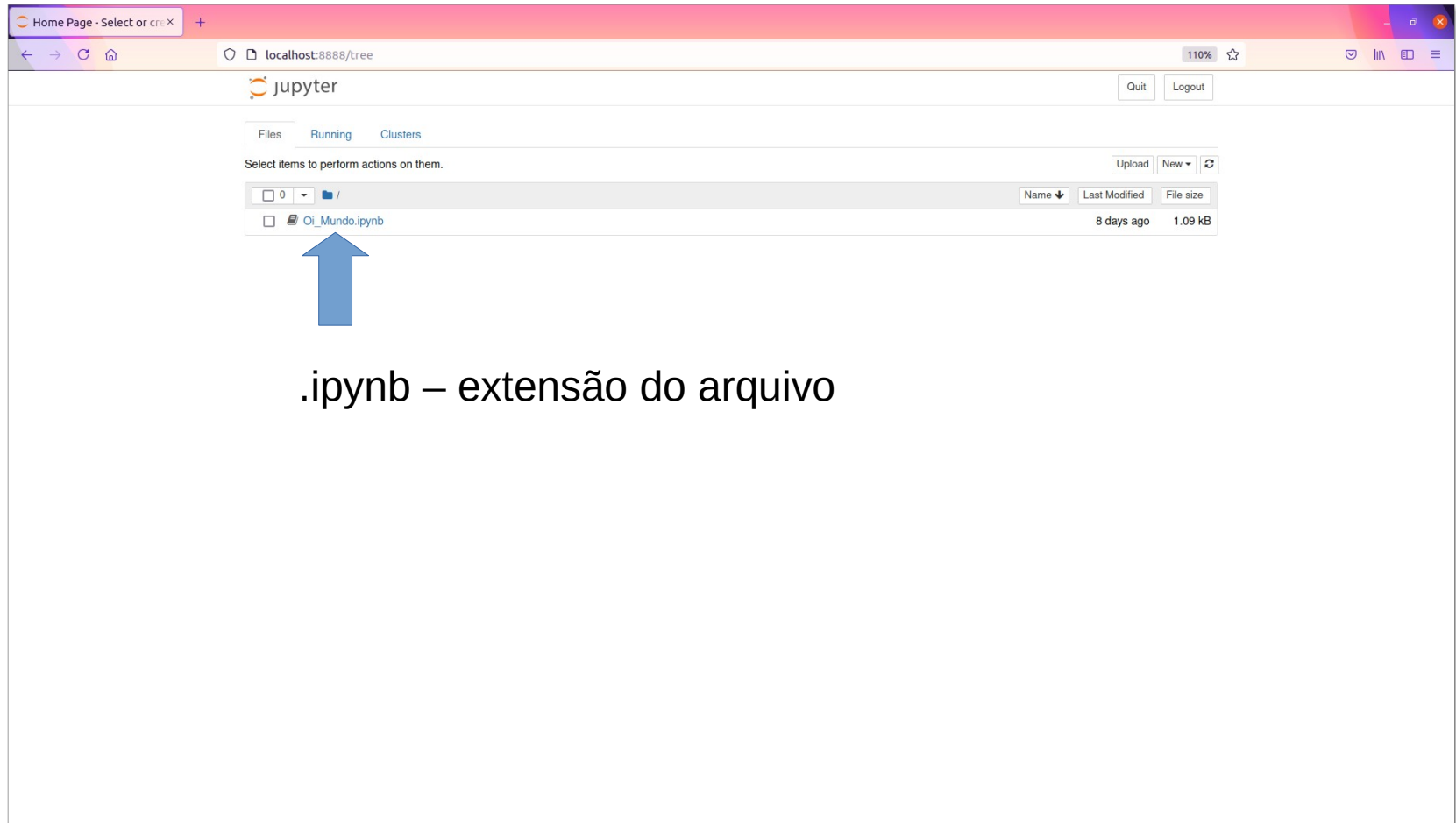
Jupyter Notebook



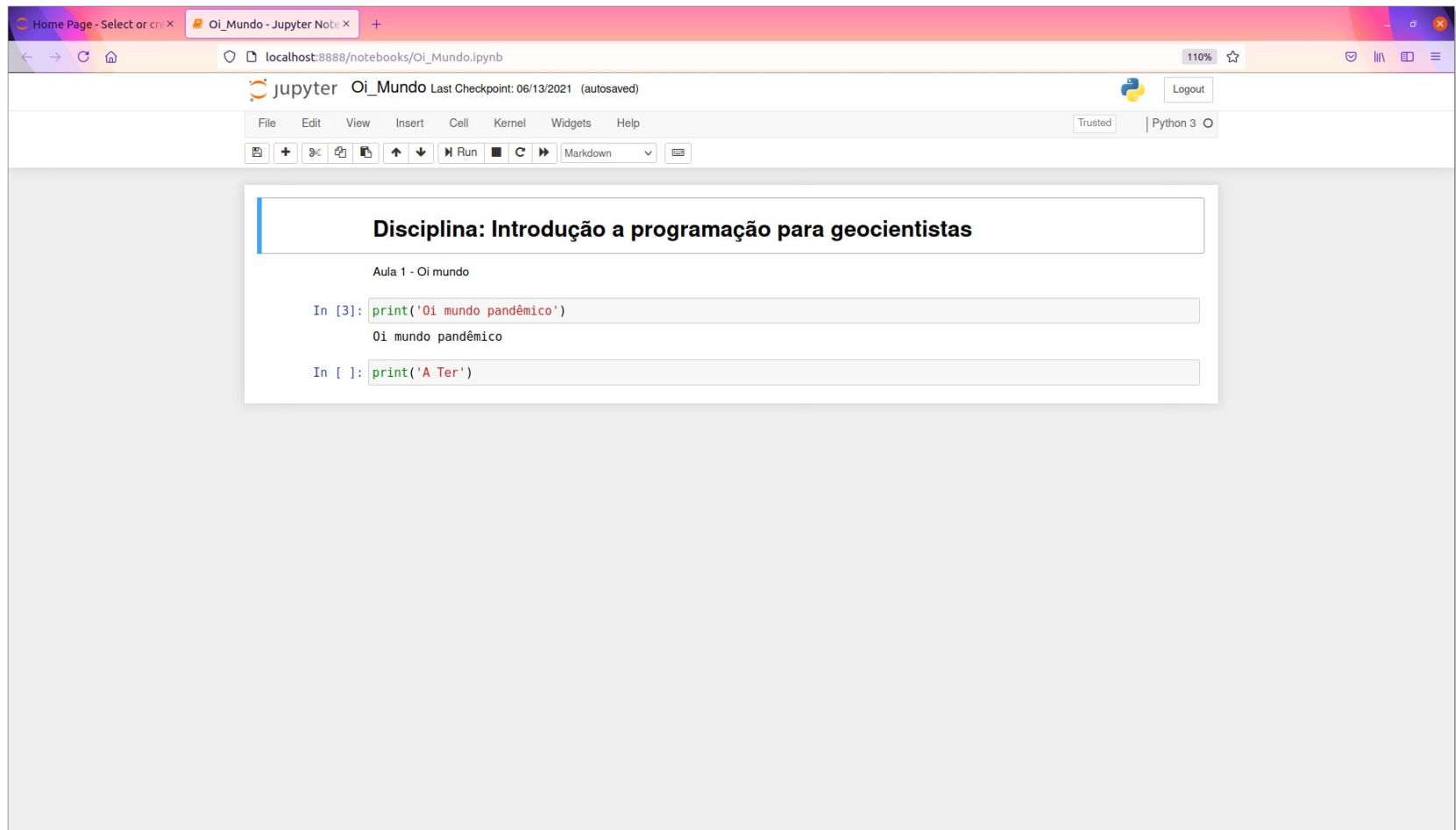
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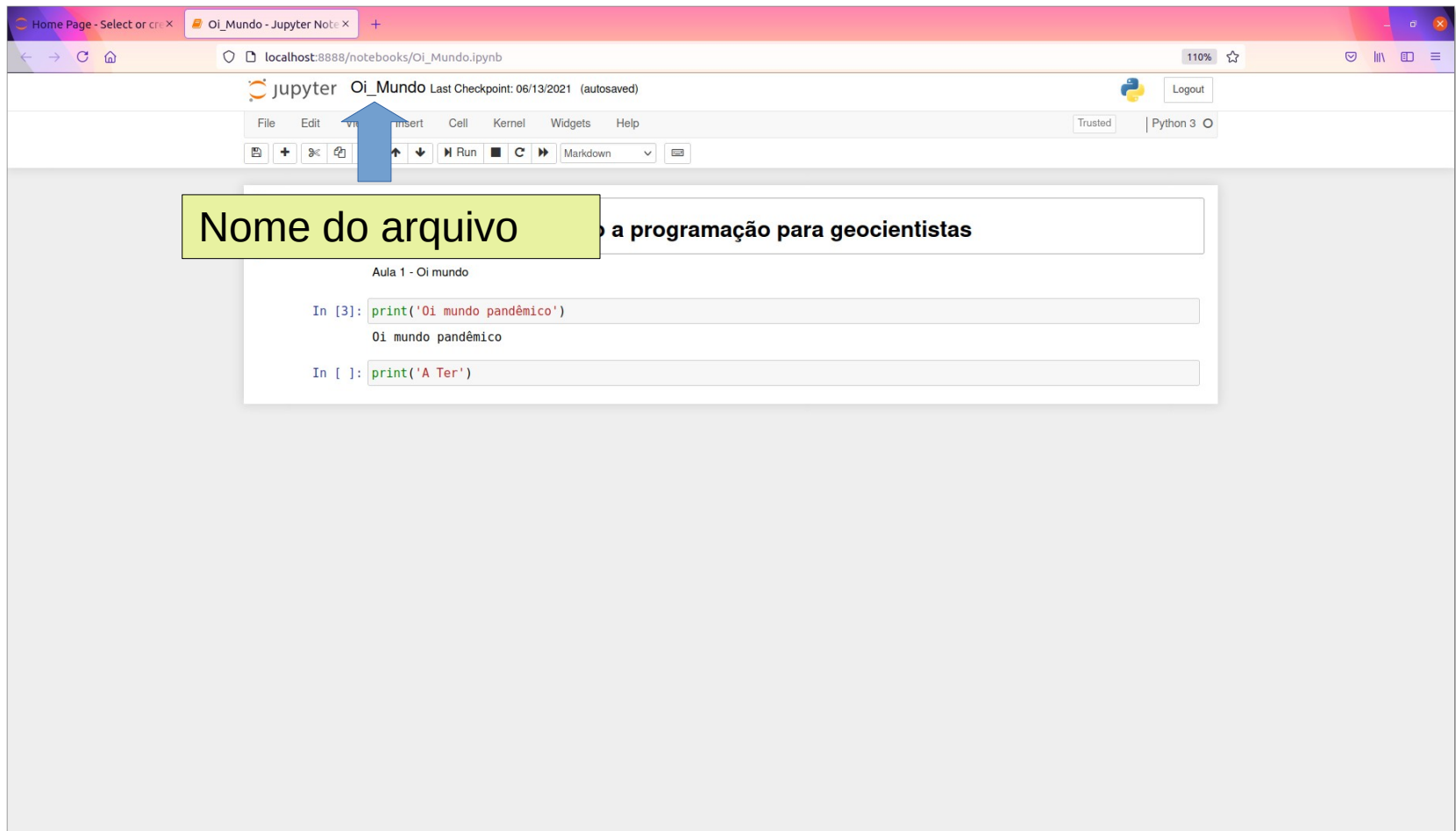
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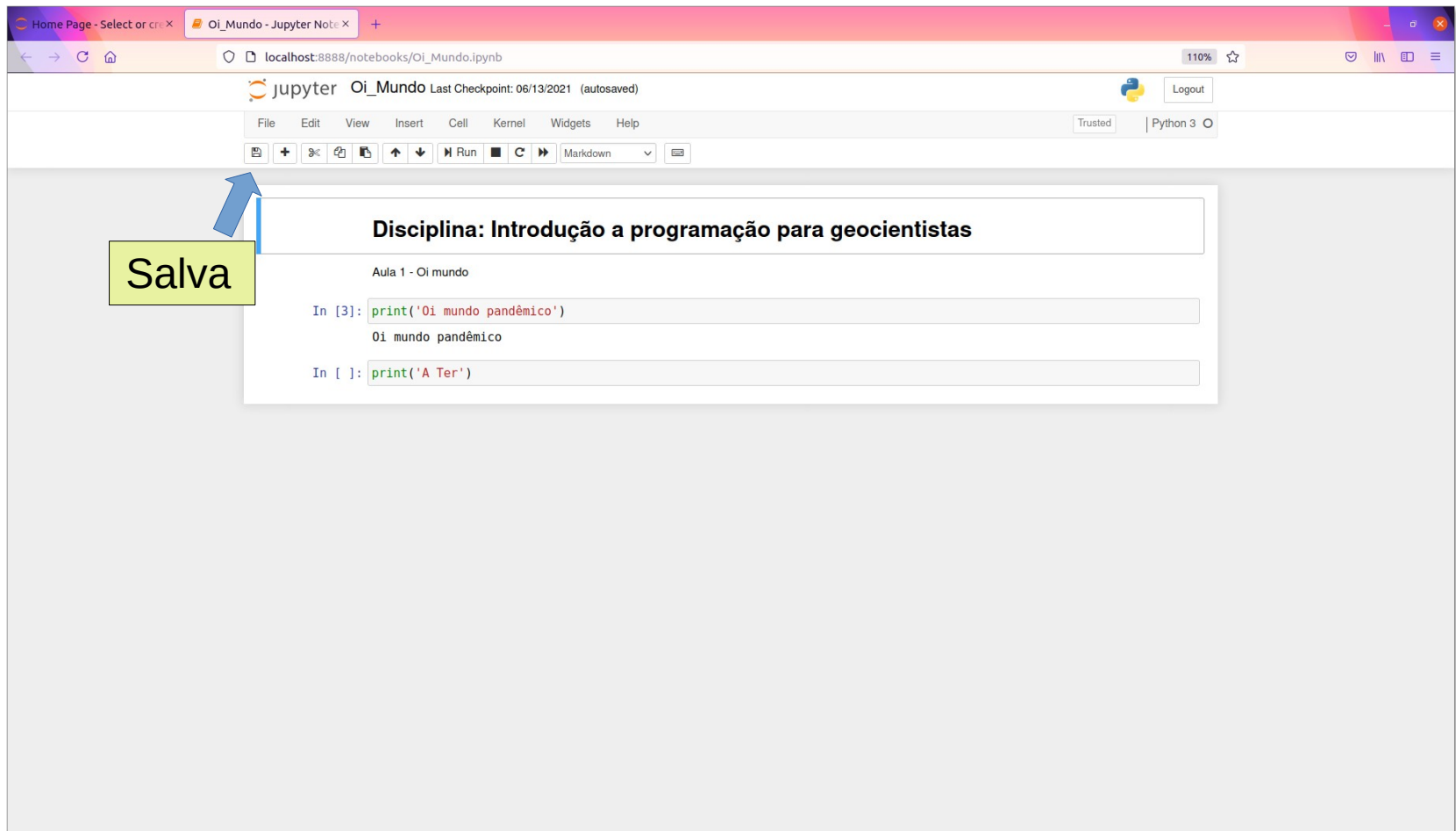
Jupyter Notebook



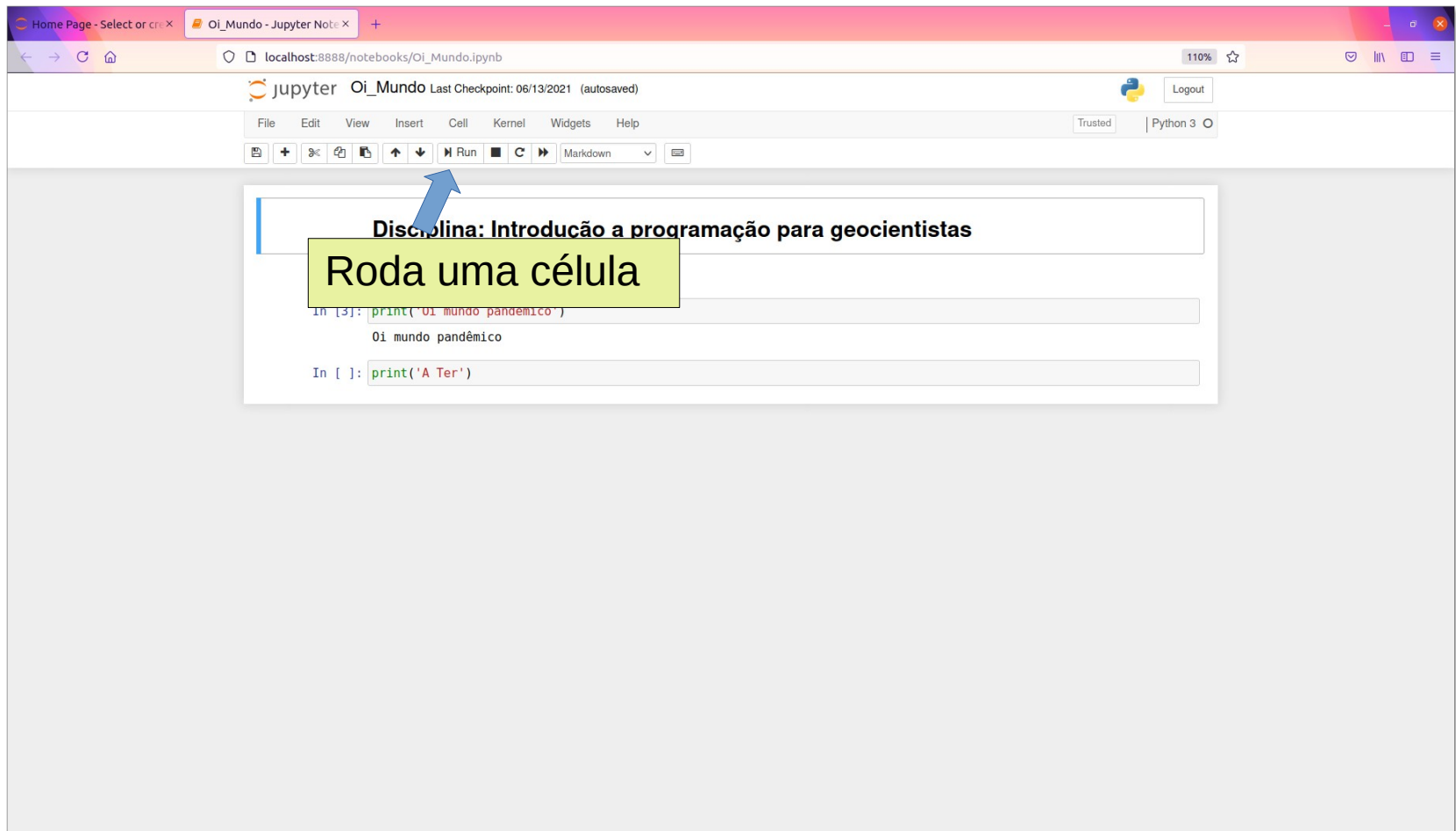
Jupyter Notebook



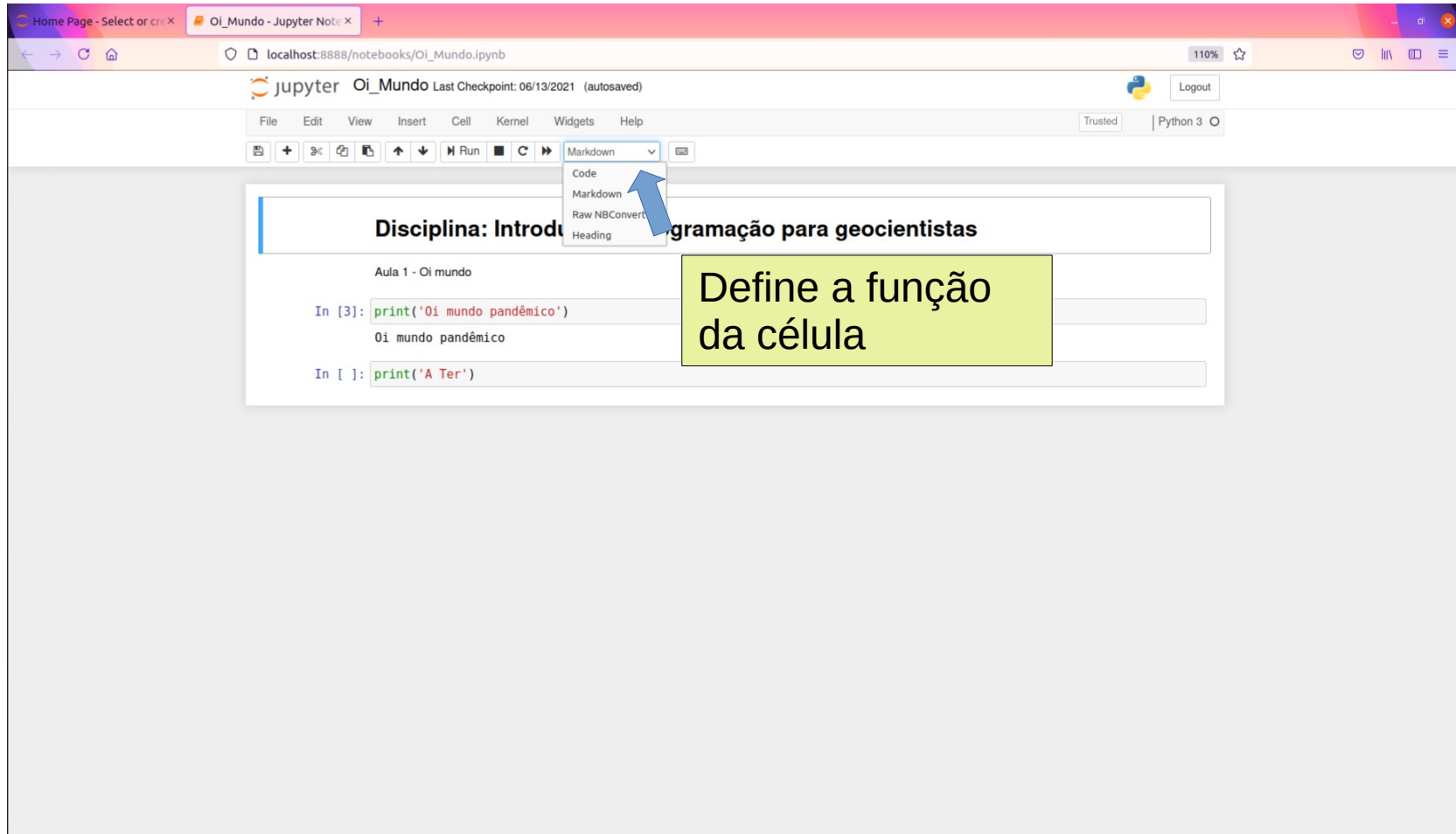
Jupyter Notebook



Jupyter Notebook



Jupyter Notebook



The screenshot shows a Jupyter Notebook interface in a web browser. The browser's address bar displays `localhost:8888/notebooks/Oi_Mundo.ipynb`. The Jupyter interface includes a top bar with the notebook name "Oi_Mundo" and a "Last Checkpoint: 06/13/2021 (autosaved)" status. Below this is a menu bar with options: File, Edit, View, Insert, Cell, Kernel, Widgets, and Help. A toolbar contains icons for creating new cells, deleting cells, and running code. The "Cell" menu is open, showing options: Code, Markdown, Raw NBConvert, and Heading. A blue arrow points to the "Markdown" option. The notebook content consists of a markdown cell with the text "Disciplina: Introdução à programação para geocientistas" and a code cell with the following Python code:

```
Aula 1 - Oi mundo

In [3]: print('Oi mundo pandêmico')
Oi mundo pandêmico

In [ ]: print('A Ter')
```

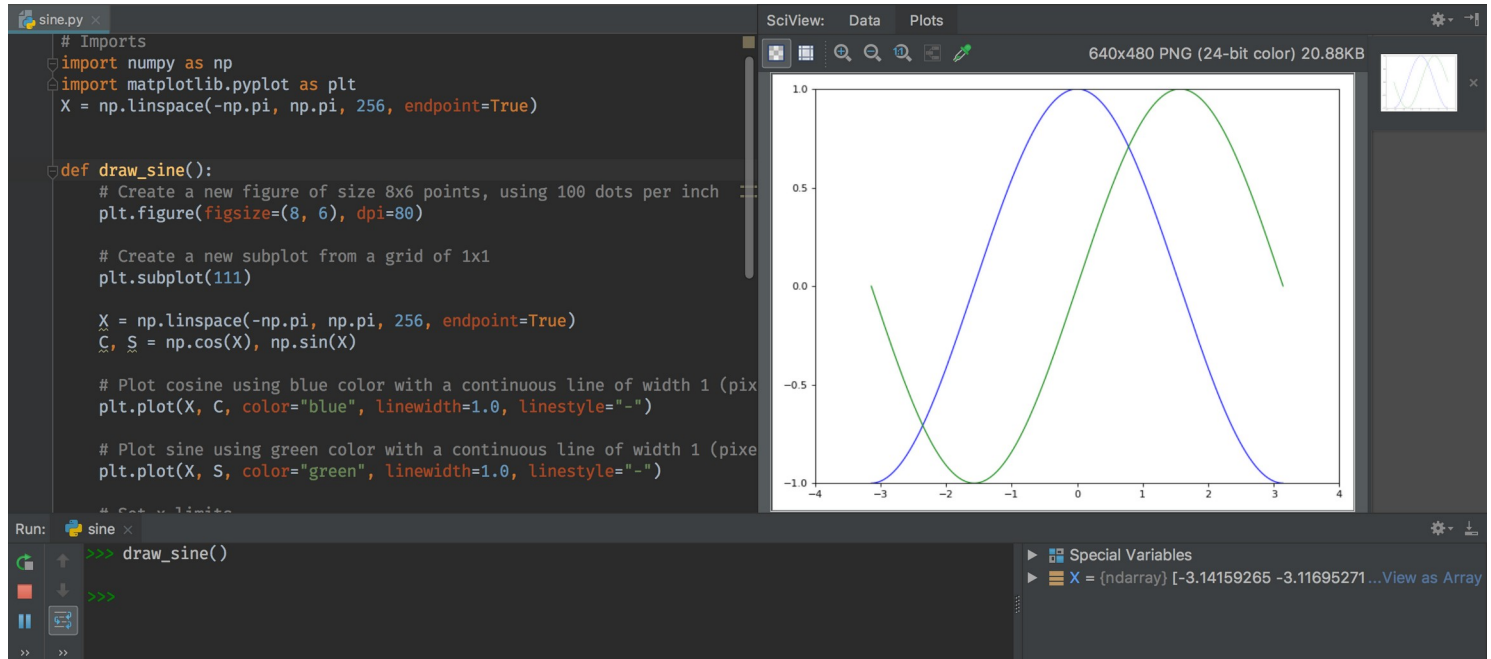
A yellow callout box with the text "Define a função da célula" is positioned over the code cell.

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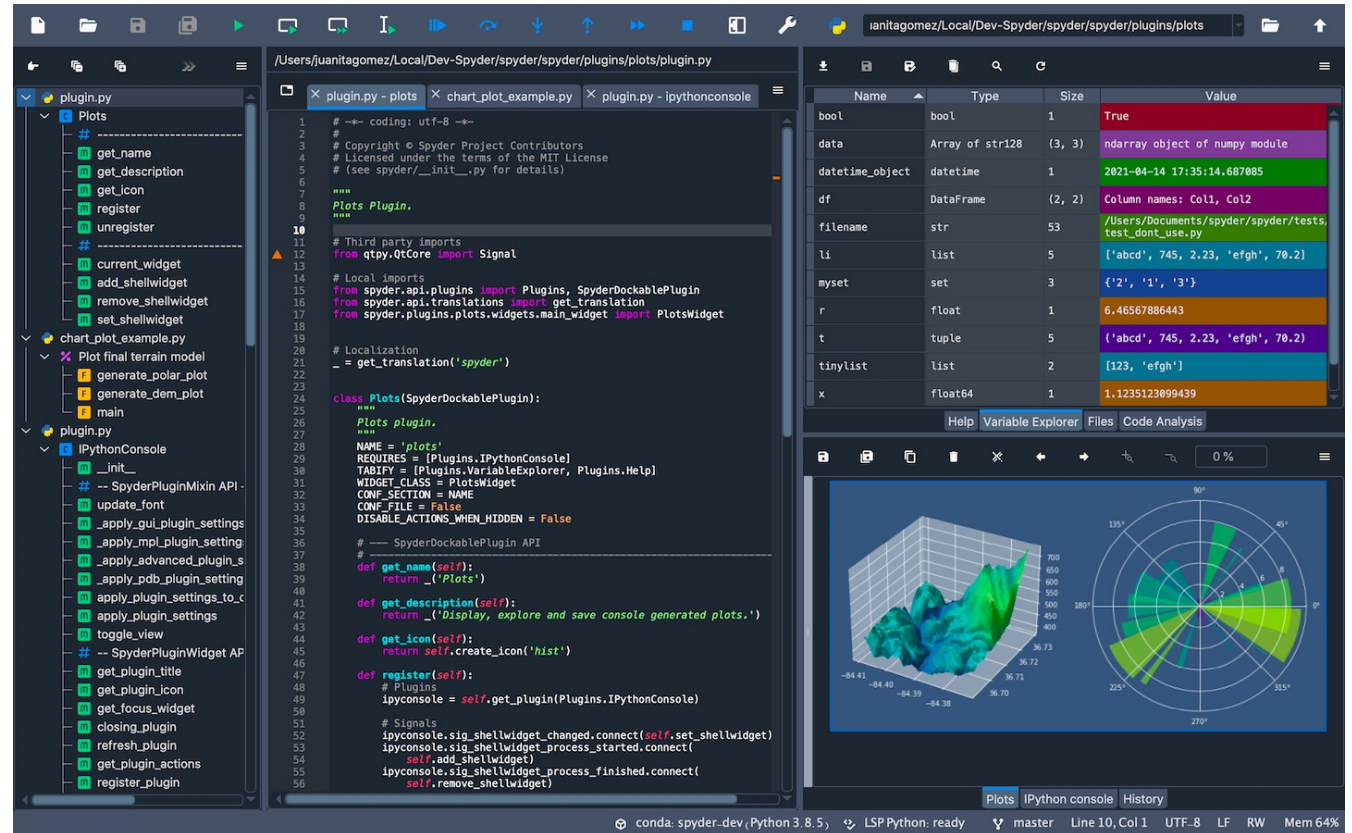
IDE

- PyCharm



IDE

- Spyder



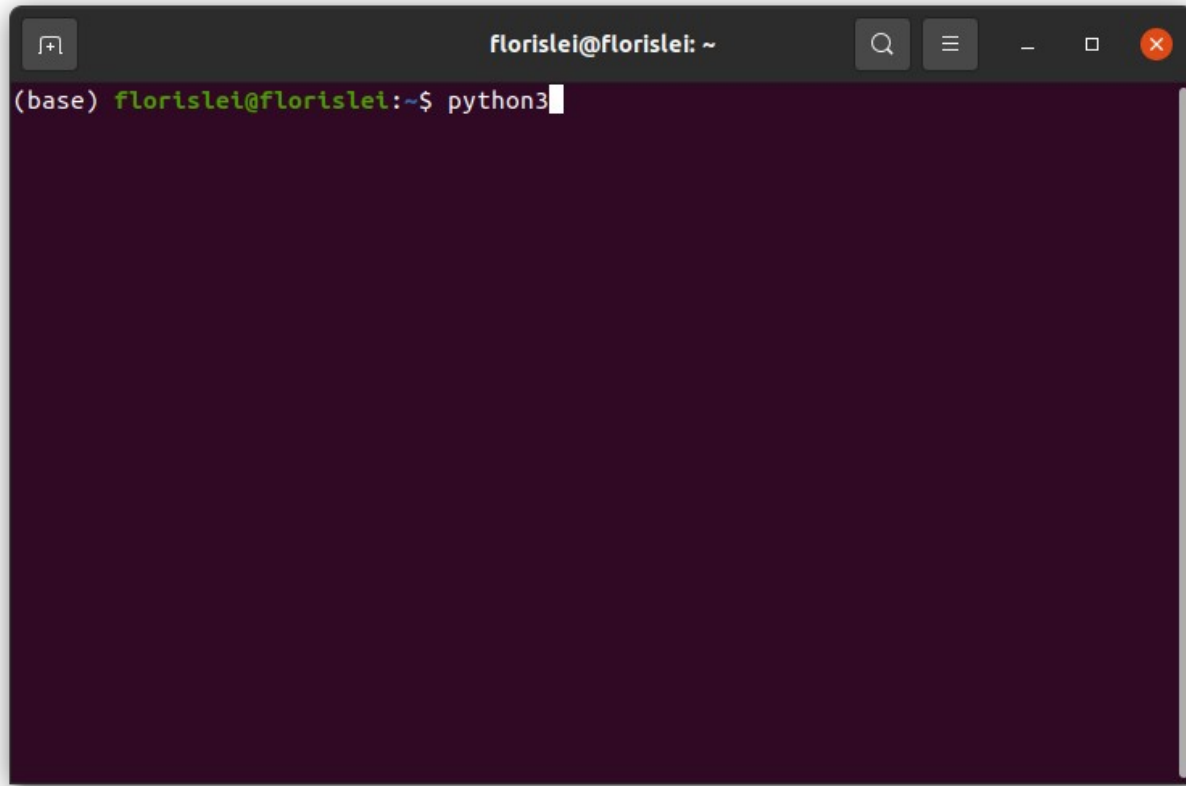
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Terminal

- Terminal (linux)
- Cmd (windows)

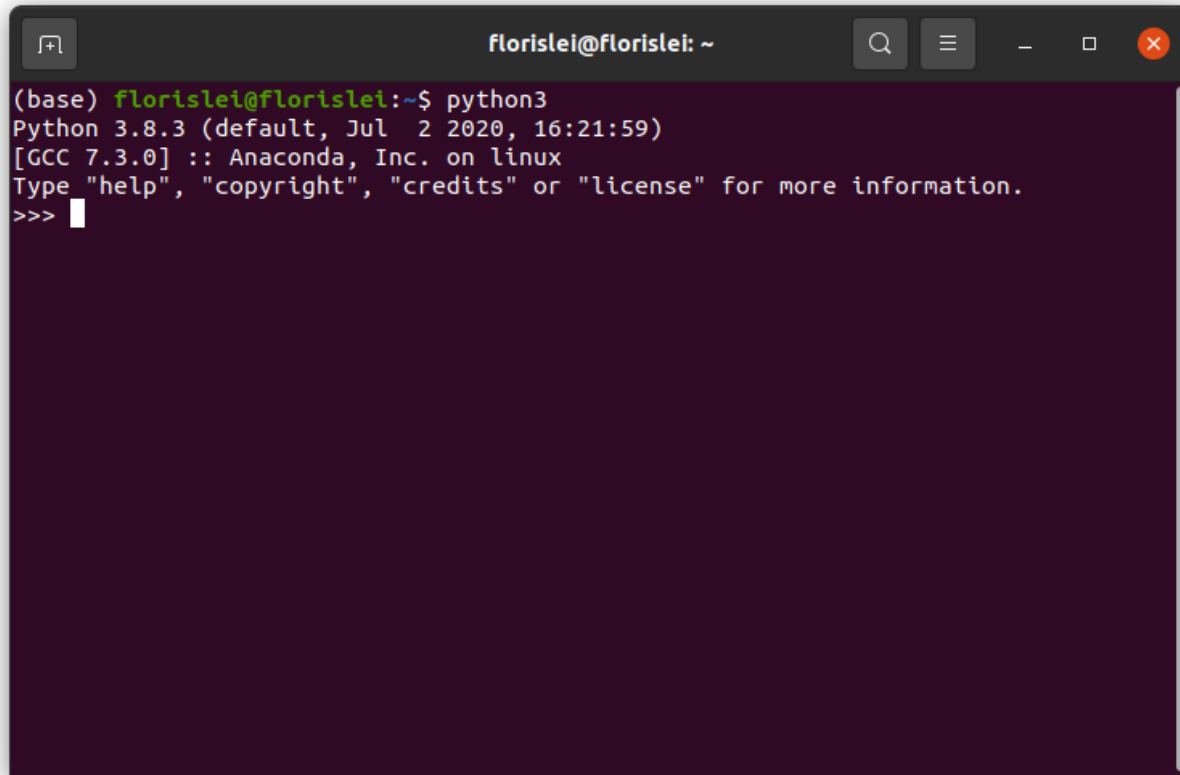
Terminal



A terminal window with a dark gray title bar and a dark purple body. The title bar contains a window icon, the text 'florislei@florislei: ~', and standard window controls (search, menu, minimize, maximize, close). The terminal body shows a green prompt '(base) florislei@florislei:~\$' followed by the command 'python3' and a white cursor.

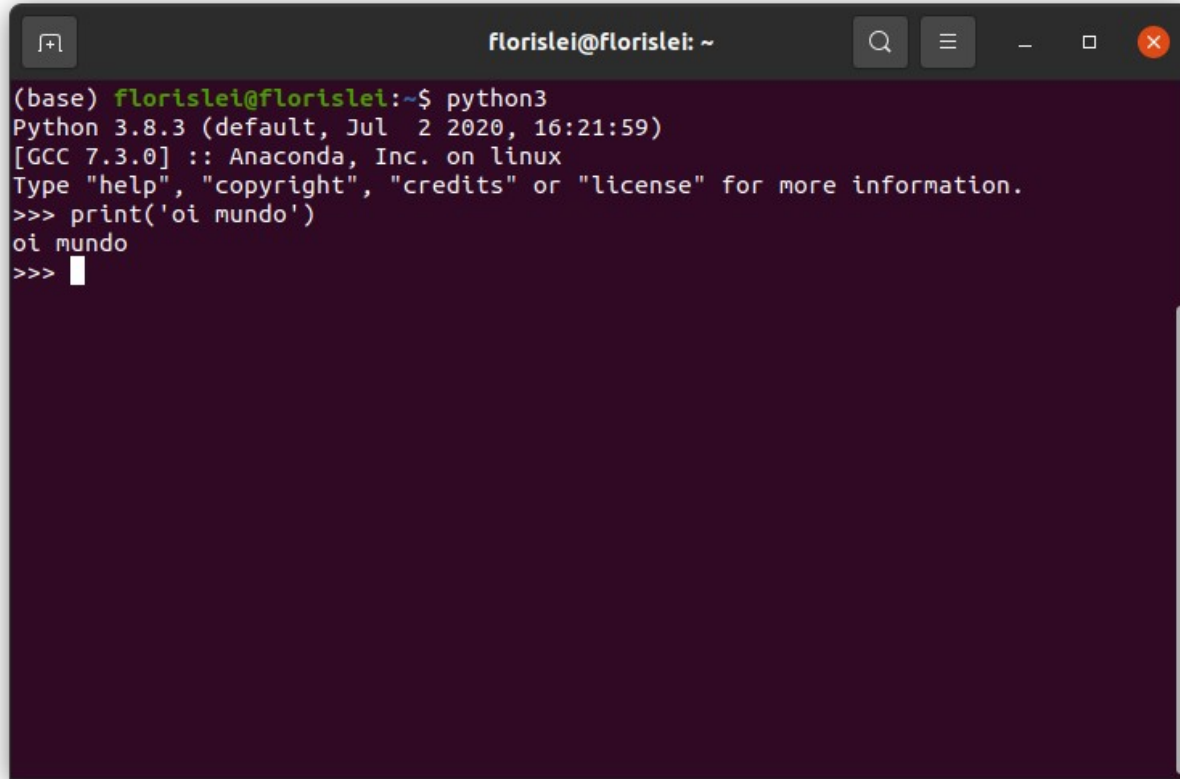
```
(base) florislei@florislei:~$ python3
```

Terminal

A terminal window with a dark purple background. The title bar at the top shows 'florislei@florislei: ~' and standard window controls. The terminal text shows the execution of 'python3', which displays the Python version (3.8.3), build date (Jul 2 2020), and the fact that it's the Anaconda distribution on Linux. It prompts the user to type 'help', 'copyright', 'credits', or 'license' for more information. The prompt '>>>' is followed by a white cursor.

```
(base) florislei@florislei:~$ python3
Python 3.8.3 (default, Jul 2 2020, 16:21:59)
[GCC 7.3.0] :: Anaconda, Inc. on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> █
```


Terminal



```
(base) florislei@florislei:~$ python3
Python 3.8.3 (default, Jul 2 2020, 16:21:59)
[GCC 7.3.0] :: Anaconda, Inc. on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> print('oi mundo')
oi mundo
>>> 
```

The image shows a terminal window with a dark purple background. The window title bar at the top reads "florislei@florislei: ~" and includes standard window controls (search, menu, and close buttons). The terminal content shows the execution of the Python 3.8.3 interpreter. The prompt is "(base) florislei@florislei:~\$". The user enters "python3", which starts the Python interpreter. The interpreter displays its version and the environment it's running in: "Python 3.8.3 (default, Jul 2 2020, 16:21:59) [GCC 7.3.0] :: Anaconda, Inc. on linux". It then shows the standard Python startup message: "Type 'help', 'copyright', 'credits' or 'license' for more information." The prompt changes to ">>>". The user enters "print('oi mundo')", and the interpreter outputs "oi mundo". The prompt returns to ">>>" with a cursor, indicating the session is still active.