



Jupyter Notebooks

Kernels and Markdown

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Kernels

When you work in Jupyter, you are working in a 'kernel'. The kernel allows processes in the notebook to be executed in a certain programming language.

Jupyter can interpret several languages but in our course it uses a Python kernel, interpreting code as being written in Python.

All the 'codespace' sections in the notebook are where Python code is written, stored, and run from.

The notebook's kernel can be controlled using the Kernel tab within Jupyter.

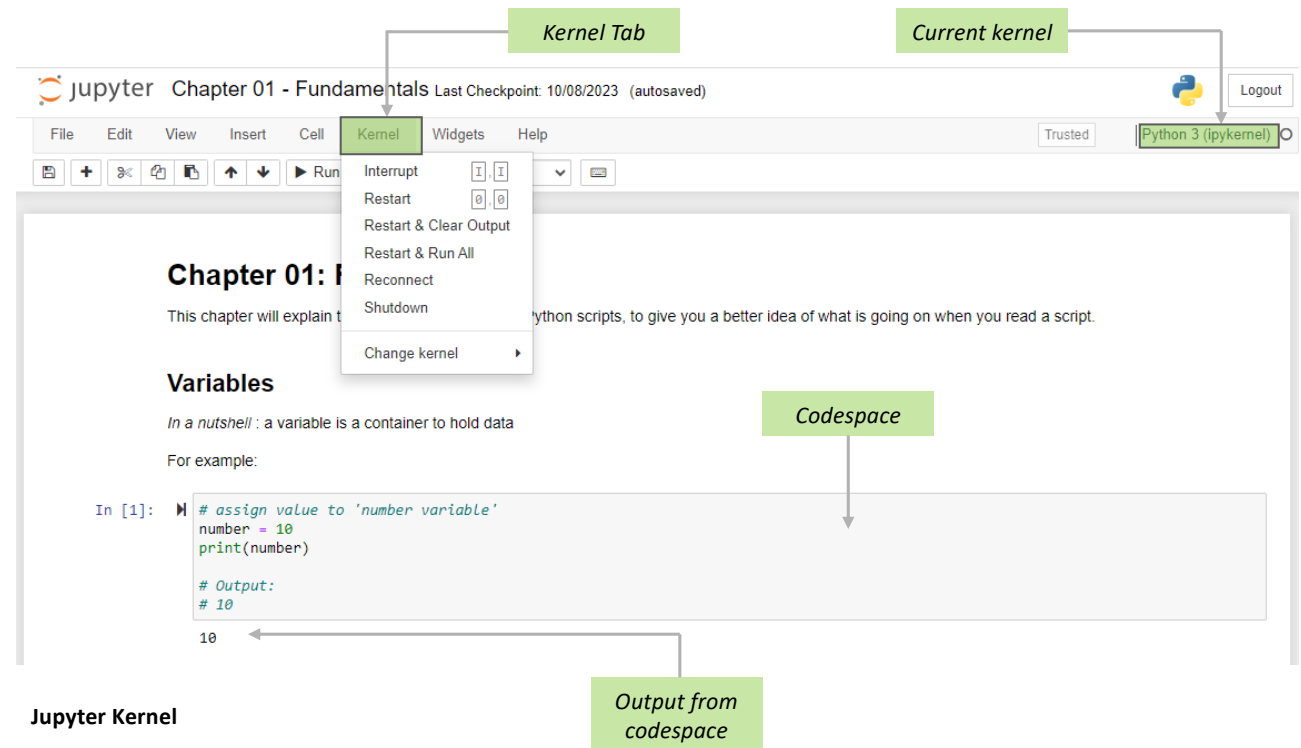
From this tab you can perform various actions. The most useful are:

Interrupt

- + If your code is taking too long to run or is stuck in an infinite loop, this will stop the code from running.

Restart

- + When code is run its output is displayed, you may wish to have all codespaces run, or clear any outputs to clean up the notebook. This may be done using restart.



Markdown

Markdown is a programming language that allows formatted text to be shown in the Jupyter Notebook, such as headings, bullet points, bold text, etc.

You may accidentally access the source code when working in Jupyter by double-clicking the area it is written.

If this happens, just run the Markdown space and it will reformat.

A cheat sheet if you want to create your own Markdown spaces can be found here:

<https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet>

The image shows a Jupyter Notebook interface for 'Chapter 00 - Python'. The top bar includes the Jupyter logo, the chapter title, and the last checkpoint information. The menu bar has options: File, Edit, View, Insert, Cell, Kernel, Widgets, and Help. The toolbar shows icons for file operations, a 'Run' button (highlighted with a green box and an arrow pointing to it from a green box labeled 'Hit run to format'), and a 'Markdown' dropdown menu. The main content area displays the 'Original Markdown script' in a code editor. The script includes a heading 'Chapter 00: Python', a paragraph, a subheading '## What is Python?', a paragraph, a list of bullet points, another paragraph, and a final paragraph. The text is currently in a plain, unformatted font.

Markdown Script

The image shows the same Jupyter Notebook interface after the 'Run' button has been clicked. The 'Markdown' dropdown menu is now set to 'Output'. The main content area displays the 'Result' of the formatted Markdown script. The text is now properly formatted: the heading 'Chapter 00: Python' is in a larger font, the subheading 'What is Python?' is in a smaller font, the bullet points are listed with hyphens, and the paragraphs are separated by line breaks. A green box labeled 'Result' has an arrow pointing to the formatted output.

Markdown Output