



# 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.

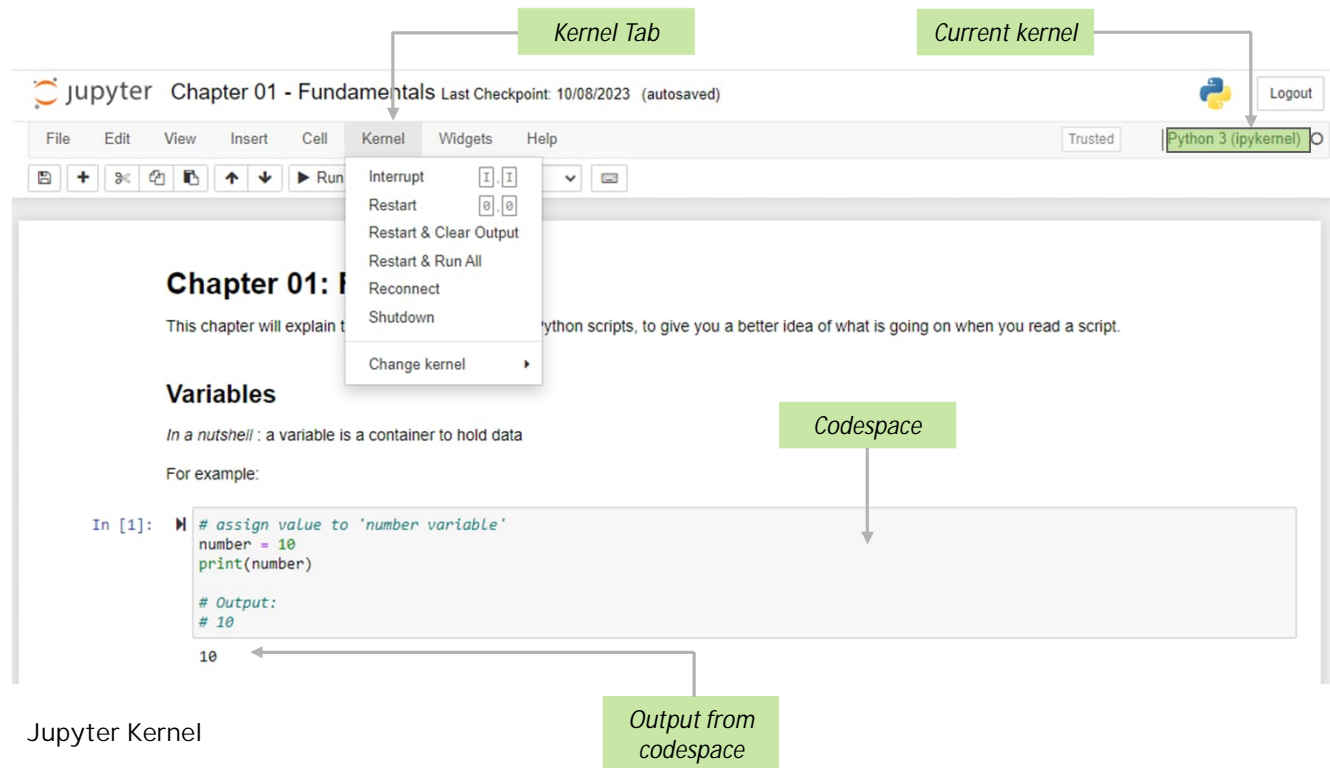
From this tab you can perform various actions. The most useful are:

## 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 with the title "Chapter 00 - Python". The "Run" button in the toolbar is highlighted with a green box and labeled "Hit run to format". The main content area displays the original Markdown script, which is not yet formatted. The script includes a heading "Chapter 00: Python", a paragraph, a subheading "## What is Python?", a paragraph, a list of bullet points, and two more paragraphs. A green box labeled "Original Markdown script" points to the content area.

## Markdown Script

The image shows the same Jupyter Notebook interface after the "Run" button has been clicked. The content area now displays the formatted output of the Markdown script. The heading "Chapter 00: Python" is now bold, the subheading "What is Python?" is also bold, and the bullet points are properly formatted. A green box labeled "Result" points to the formatted content area.

## Markdown Output