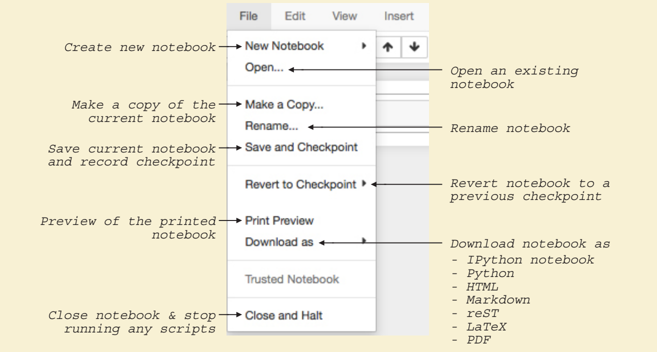
Python For Data Science Cheat Sheet

Jupyter Notebook

Learn Python for Data Science Interactively

Saving/Loading Notebooks

Matplotlib is a Python 2D plotting library which produces publication-quality figures in a variety of hardcopy formats and interactive environments across platforms.



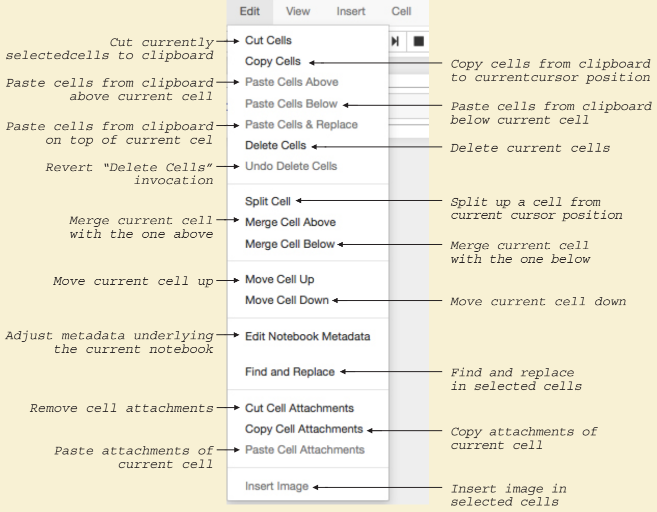
Create new notebook → New Notebook
Open... ← *Open an existing notebook*
Make a copy of the current notebook → Make a Copy...
Rename... ← *Rename notebook*
Save current notebook and record checkpoint → Save and Checkpoint
Revert to Checkpoint ← *Revert notebook to a previous checkpoint*
Preview of the printed notebook → Print Preview
Download as ← *Download notebook as*
- *IPython notebook*
- *Python*
- *HTML*
- *Markdown*
- *reST*
- *LaTeX*
- *PDF*

Close notebook & stop running any scripts → Close and Halt

Writing Code And Text

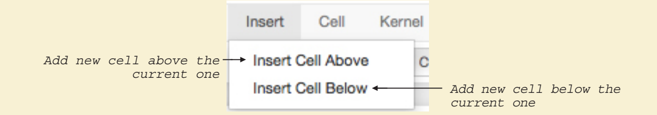
Code and text are encapsulated by 3 basic cell types: markdown cells, code cells, and raw NBConvert cells.

Edit Cells



Cut currently selectedcells to clipboard → Cut Cells
Copy Cells ← *Copy cells from clipboard to currentcursor position*
Paste cells from clipboard above current cell → Paste Cells Above
Paste Cells Below ← *Paste cells from clipboard below current cell*
Paste cells from clipboard on top of current cel → Paste Cells & Replace
Delete Cells ← *Delete current cells*
Revert "Delete Cells" invocation → Undo Delete Cells
Split Cell ← *Split up a cell from current cursor position*
Merge current cell with the one above → Merge Cell Above
Merge Cell Below ← *Merge current cell with the one below*
Move current cell up → Move Cell Up
Move Cell Down ← *Move current cell down*
Adjust metadata underlying the current notebook → Edit Notebook Metadata
Find and Replace ← *Find and replace in selected cells*
Remove cell attachments → Cut Cell Attachments
Copy Cell Attachments ← *Copy attachments of current cell*
Paste attachments of current cell → Paste Cell Attachments
Insert Image ← *Insert image in selected cells*

Edit Cells



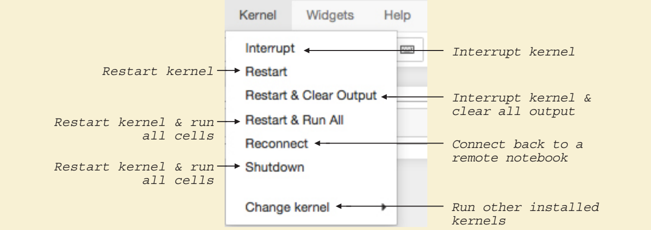
Add new cell above the current one → Insert Cell Above
Insert Cell Below ← *Add new cell below the current one*

Working with Different Programming Languages

Kernels provide computation and communication with front-end interfaces like the notebooks. There are three main kernels:

IPython IRkernel IJulia

Installing Jupyter Notebook will automatically install the IPython kernel.

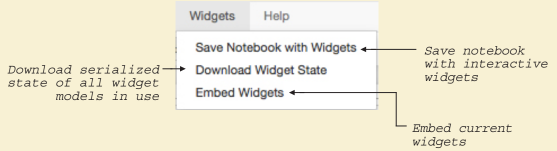


Interrupt ← *Interrupt kernel*
Restart kernel → Restart
Restart & Clear Output ← *Interrupt kernel & clear all output*
Restart kernel & run all cells → Restart & Run All
Reconnect ← *Connect back to a remote notebook*
Restart kernel & run all cells → Shutdown
Change kernel ← *Run other installed kernels*

Widgets

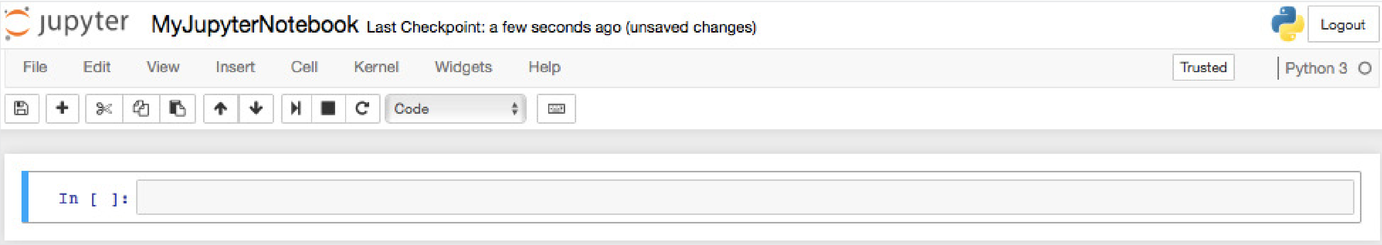
Notebook widgets provide the ability to visualize and control changes in your data, often as a control like a slider, textbox, etc.

You can use them to build interactive GUIs for your notebooks or to synchronize stateful and stateless information between Python and JavaScript.

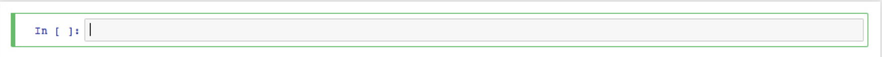


Save Notebook with Widgets ← *Save notebook with interactive widgets*
Download serialized state of all widget models in use → Download Widget State
Embed Widgets ← *Embed current widgets*

Command Mode:

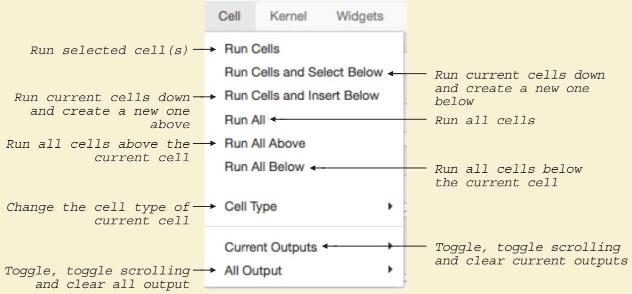


Edit Mode:



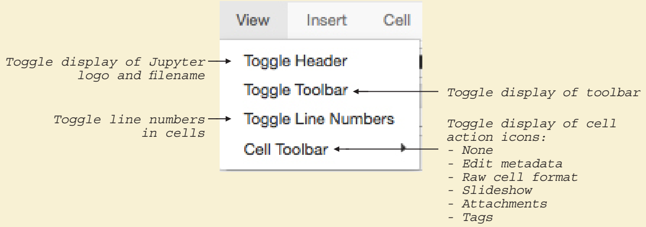
1. *Save and checkpoint*
2. *Insert cell below*
3. *Cut cell*
4. *Copy cell(s)*
5. *Paste cell(s) below*
6. *Move cell up*
7. *Move cell down*
8. *Run current cell*
9. *Interrupt kernel*
10. *Restart kernel*
11. *Display characteristics*
12. *Open command palette*
13. *Current kernel*
14. *Kernel status*
15. *Log out from notebook server*

Edit Cells



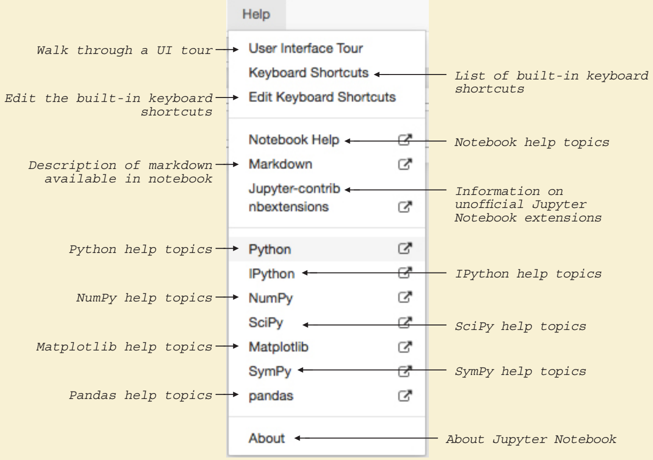
Run selected cell(s) → Run Cells
Run Cells and Select Below ← *Run current cells down and create a new one below*
Run current cells down and create a new one above → Run Cells and Insert Below
Run All ← *Run all cells*
Run all cells above the current cell → Run All Above
Run All Below ← *Run all cells below the current cell*
Change the cell type of current cell → Cell Type
Current Outputs ← *Toggle, toggle scrolling and clear current outputs*
Toggle, toggle scrolling and clear all output → All Output

View Cells



Toggle display of Jupyter logo and filename → Toggle Header
Toggle Toolbar ← *Toggle display of toolbar*
Toggle line numbers in cells → Toggle Line Numbers
Cell Toolbar ← *Toggle display of cell action icons:*
- *None*
- *Edit metadata*
- *Raw cell format*
- *Slideshow*
- *Attachments*
- *Tags*

Asking For Help



Walk through a UI tour → User Interface Tour
Keyboard Shortcuts ← *List of built-in keyboard shortcuts*
Edit the built-in keyboard shortcuts → Edit Keyboard Shortcuts
Notebook Help ← *Notebook help topics*
Description of markdown available in notebook → Markdown
Jupyter-contrib nbextensions ← *Information on unofficial Jupyter Notebook extensions*
Python help topics → Python
IPython ← *IPython help topics*
NumPy help topics → NumPy
SciPy ← *SciPy help topics*
Matplotlib help topics → Matplotlib
SymPy ← *SymPy help topics*
Pandas help topics → pandas
About ← *About Jupyter Notebook*