1. What is the Jupyter Notebook?

In this page briefly introduce the main components of the *Jupyter Notebook* environment. For a more complete overview see References.

Contents

1.1. Notebook document

Notebook documents (or "notebooks", all lower case) are documents produced by the Jupyter Notebook App, which contain both computer code (e.g. python) and rich text elements (paragraph, equations, figures, links, etc...). Notebook documents are both human-readable documents containing the analysis description and the results (figures, tables, etc..) as well as executable documents which can be run to perform data analysis.

References: Notebook documents in the project homepage and in the official docs.

1.2. Jupyter Notebook App

The *Jupyter Notebook App* is a server-client application that allows editing and running notebook documents via a web browser. The *Jupyter Notebook App* can be executed on a local desktop requiring no internet access (as described in this document) or can be installed on a remote server and accessed through the internet.

In addition to displaying/editing/running notebook documents, the *Jupyter Notebook App* has a "Dashboard" (Notebook Dashboard), a "control panel" showing local files and allowing to open notebook documents or shutting down their kernels.

References: Jupyter Notebook App in the project homepage and in the official docs.

1.3. kernel

A notebook *kernel* is a "computational engine" that executes the code contained in a Notebook document. The *ipython kernel*, referenced in this guide, executes python code. Kernels for many other languages exist (official kernels).

When you open a Notebook document, the associated *kernel* is automatically launched. When the notebook is *executed* (either cell-by-cell or with menu *Cell -> Run All*), the *kernel* performs the computation and produces the results. Depending on the type of computations, the *kernel* may consume significant CPU and RAM. Note that the RAM is not released until the *kernel* is shut-down.

See also Close a notebook: kernel shut down.

References: from the official docs Opening Notebooks and Decoupled two-process model.

1.4. Notebook Dashboard

The *Notebook Dashboard* is the component which is shown first when you launch Jupyter Notebook App. The *Notebook Dashboard* is mainly used to open notebook documents, and to manage the running kernels (visualize and shutdown).

The *Notebook Dashboard* has other features similar to a file manager, namely navigating folders and renaming/deleting files.

References: from the official docs Opening Notebooks.

1.5. References

Official Jupyter Project Pages:

- Project Jupyter Homepage
- Old IPython Notebook Homepage

Official Documentation:

- Jupyter Notebook Documentation
- Jupyter Project Documentation

See also:

- [What is the IPython Notebook?](#)
- [Notebook Basics](#), an example notebook
- [Introducing IPython Notebook](#)
- [Jupyter Notebook: The Definitive Guide](#), an introductory tutorial to Jupyter

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The *Next* button will bring you to the next section (*Installation*).