My sample book

The Jupyter Book Community

20 Αυγούστου 2022

Περιεχόμενα

This is a small και μερικά ελληνικά εδώ για να δούμε πως λειτουργεί sample book to give you a feel for how book content is structured. It shows off a few of the major file types, as well as some sample content. It does not go in-depth into any particular topic - check out the Jupyter Book documentation[1] for more information.

Check out the content pages bundled with this sample book to see more. Καλημέρα και καλησπέρα

[1] https://jupyterbook.org

ΚΕΦΑΛΑΙΟ 1

Markdown Files

Whether you write your book's content in Jupyter Notebooks (`.ipynb`) or in regular markdown files (`.md`), you'll write in the same flavor of markdown called **MyST Markdown**. This is a simple file to help you get started and show off some syntax.

1.1 What is MyST?

MyST stands for «Markedly Structured Text». It is a slight variation on a flavor of markdown called «CommonMark» markdown, with small syntax extensions to allow you to write **roles** and **directives** in the Sphinx ecosystem.

For more about MyST, see the MyST Markdown Overview[2].

1.2 Sample Roles and Directives

Roles and directives are two of the most powerful tools in Jupyter Book. They are kind of like functions, but written in a markup language. They both serve a similar purpose, but **roles are written in one line**, whereas **directives span many lines**. They both accept different kinds of inputs, and what they do with those inputs depends on the specific role or directive that is being called.

Here is a «note» directive:

Σημείωση: Here is a note

It will be rendered in a special box when you build your book.

Here is an inline directive to refer to a document: *Notebooks with MyST Markdown*.

[2] https://jupyterbook.org/content/myst.html

1.3 Citations

You can also cite references that are stored in a `bibtex` file. For example, the following syntax: `{cite}`holdgraf_evidence_2014`` will render like this: [HdHPK14].

Moreover, you can insert a bibliography into your page with this syntax: The `{bibliography}` directive must be used for all the `{cite}` roles to render properly. For example, if the references for your book are stored in `references.bib`, then the bibliography is inserted with:

1.4 Learn more

This is just a simple starter to get you started. You can learn a lot more at jupyterbook.org[3].

[3] https://jupyterbook.org

ΚΕΦΑΛΑΙΟ 2

Content with notebooks

You can also create content with Jupyter Notebooks. This means that you can include code blocks and their outputs in your book.

2.1 Markdown + notebooks

As it is markdown, you can embed images, HTML, etc into your posts!

You can also add_{math} and

$$math^{blocks}$$

or

$$\text{mean} la_{tex}$$

$$mathblocks$$

But make sure you \$Escape \$your \$dollar signs \$you want to keep!

2.2 MyST markdown

MyST markdown works in Jupyter Notebooks as well. For more information about MyST markdown, check out the MyST guide in Jupyter Book[4], or see the MyST markdown documentation[5].

[4] https://jupyterbook.org/content/myst.html
[5] https://myst-parser.readthedocs.io/en/latest/

2.3 Code blocks and outputs

Jupyter Book will also embed your code blocks and output in your book. For example, here's some sample Matplotlib code:

```
from matplotlib import rcParams, cycler
import matplotlib.pyplot as plt
import numpy as np
plt.ion()
```

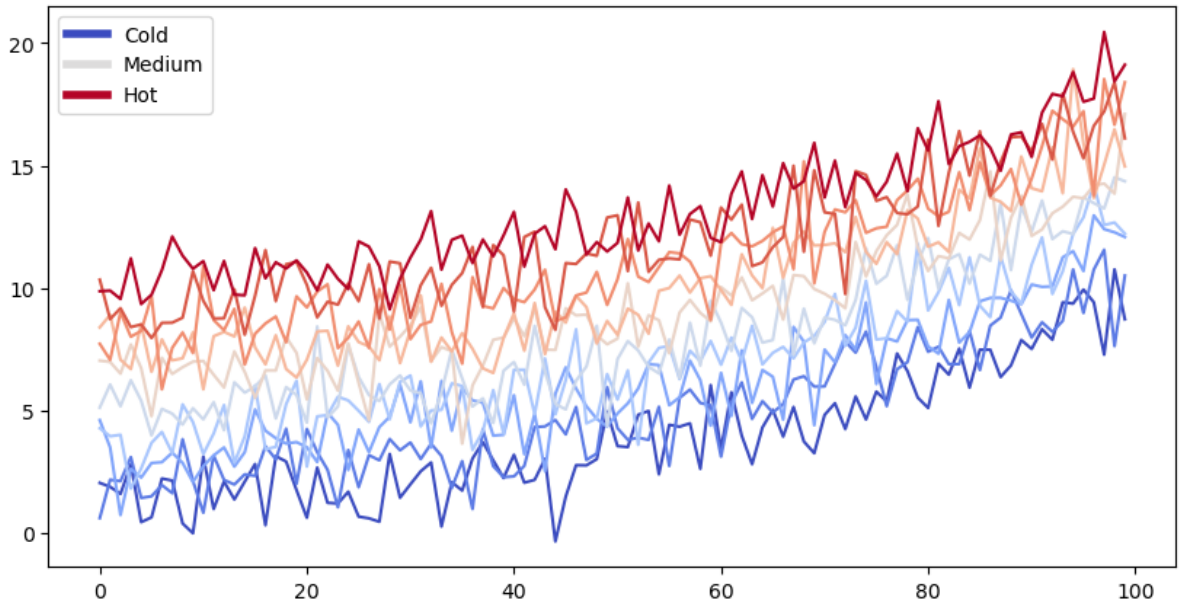
```
<matplotlib.pyplot._IonContext at 0x7fbef07411c0>
```

```
# Fixing random state for reproducibility
np.random.seed(19680801)

N = 10
data = [np.logspace(0, 1, 100) + np.random.randn(100) + ii for ii in range(N)]
data = np.array(data).T
cmap = plt.cm.coolwarm
rcParams['axes.prop_cycle'] = cycler(color=cmap(np.linspace(0, 1, N)))


from matplotlib.lines import Line2D
custom_lines = [Line2D([0], [0], color=cmap(0.), lw=4),
                Line2D([0], [0], color=cmap(.5), lw=4),
                Line2D([0], [0], color=cmap(1.), lw=4)]

fig, ax = plt.subplots(figsize=(10, 5))
lines = ax.plot(data)
ax.legend(custom_lines, ['Cold', 'Medium', 'Hot']);
```



There is a lot more that you can do with outputs (such as including interactive outputs) with your book. For more

information about this, see the Jupyter Book documentation[6]

[6] https://jupyterbook.org

ΚΕΦΑΛΑΙΟ 3

Notebooks with MyST Markdown

Jupyter Book also lets you write text-based notebooks using MyST Markdown. See the Notebooks with MyST Markdown documentation[7] for more detailed instructions. This page shows off a notebook written in MyST Markdown.

3.1 An example cell

With MyST Markdown, you can define code cells with a directive like so:

```
print(2 + 2)
```

```
4
```

When your book is built, the contents of any `{code-cell}` blocks will be executed with your default Jupyter kernel, and their outputs will be displayed in-line with the rest of your content.

Δείτε επίσης:

Jupyter Book uses Jupytext[8] to convert text-based files to notebooks, and can support many other text-based notebook files[9].

[7] https://jupyterbook.org/file-types/myst-notebooks.html
[8] https://jupytext.readthedocs.io/en/latest/
[9] https://jupyterbook.org/file-types/jupytext.html

3.2 Create a notebook with MyST Markdown

MyST Markdown notebooks are defined by two things:

1. YAML metadata that is needed to understand if / how it should convert text files to notebooks (including information about the kernel needed). See the YAML at the top of this page for example.
2. The presence of `{code-cell}` directives, which will be executed with your book.

That's all that is needed to get started!

3.3 Quickly add YAML metadata for MyST Notebooks

If you have a markdown file and you'd like to quickly add YAML metadata to it, so that Jupyter Book will treat it as a MyST Markdown Notebook, run the following command:

```
jupyter-book myst init path/to/markdownfile.md
```

Βιβλιογραφία

[HdHPK14] Christopher Ramsay Holdgraf, Wendy de Heer, Brian N. Pasley, and Robert T. Knight. Evidence for Predictive Coding in Human Auditory Cortex. In *International Conference on Cognitive Neuroscience*. Brisbane, Australia, Australia, 2014. Frontiers in Neuroscience.