MyST syntax cheat sheet

Contents

Headers

Syntax	Example	Note
`# Heading level 1` `## Heading level 2` `### Heading level 3` `#### Heading level 4` `##### Heading level 5` `###### Heading level 6`	`# MyST Cheat Sheet`	Level 1-6 headings, denoted by number of #

Target headers

Syntax	Example	Note
`(target_header)=`	`(myst_cheatsheet)=` `# MyST Cheat Sheet`	See below how to reference target headers.

Referencing target headers

Targets can be referenced with the ref inline role which uses the section title by default:


```
{ref}`myst_cheatsheet`
```

You can specify the text of the target:

```
{ref}`MyST syntax lecture <myst_cheatsheet>`
```

Another alternative is to use Markdown syntax:

```
[MyST syntax lecture](myst_cheatsheet)
```

Quote

Syntax	Example	Note
`> text`	`> this is a quote`	quoted text

Thematic break

Syntax	Example	Note
`---`	`This is the end of some text.` `---` `## New Header`	Creates a horizontal line in the output

Line comment

Syntax	Example	Note
`% text`	`a line` `% a comment` `another line`	See Comments for more information.

Block break

Syntax	Example	Result
`+++`	`This is an example of` `+++ {"meta": "data"}` `a block break`	This is an example of a block break

HTML block

Syntax	Example	Result
`<tagName> text <tagName>`	`<p> This is a paragraph </p>`	This is a paragraph

Links

Syntax	Example	Result
`[text](target)`	`[Jupyter Book](https://jupyterbook.org)`	Jupyter Book
`[text](relative_path)`	`[PDF documentation](../advanced/pdf)`	PDF documentation
`[text](target "title")`	`[Jupyter Book](https://jupyterbook.org "JB Homepage")`	Jupyter Book
`<target>`	`<https://jupyterbook.org>`	https://jupyterbook.org
`[text][key]`	`[Jupyter Book][intro_page]` `[intro_page]: https://jupyterbook.org`	Jupyter Book

Lists

Ordered list

Example	Result
`1. First item` `2. Second item` `    1. First sub-item`	1. First item 2. Second item 1. First sub-item
`1. First item` `2. Second item` `    * First sub-item`	1. First item 2. Second item ◦ First subitem

Unordered list

Example	Result
`* First item` `* Second item` `  * First subitem`	• First item • Second item ◦ First subitem
`* First item` `  1. First subitem` `  2. Second subitem`	• First item 1. First subitem 2. Second subitem

Tables

Syntax	Example	Result
`| a  | b  |` `| :--- | ---: |` `| c  | d  |`	`|  Training  |  Validation  |` `| :---------- | ----------: |` `|  0  |  5  |` `|  13720  |  2744  |`	**Training** **Validation** 0 5 13720 2744
`` ```{list-table} :header-rows: 1 * - Col1 - Col2 * - Row1 under Col1 - Row1 under Col2 * - Row2 under Col1 - Row2 under Col2 ``` ````	```` ```{list-table} :header-rows: 1 * - Training - Validation * - 0 - 5 * - 13720 - 2744 ``` ````	**Training** **Validation** 0 5 13720 2744
`` ```{list-table} Table title :header-rows: 1 :name: label-to-reference * - Col1 - Col2 * - Row1 under Col1 - Row1 under Col2 * - Row2 under Col1 - Row2 under Col2 ``` ````	```` ```{list-table} This table title :header-rows: 1 :name: example-table * - Training - Validation * - 0 - 5 * - 13720 - 2744 ``` ````	**Training** **Validation** 0 5 13720 2744 *Table 2* This table title

Referencing tables

Note

In order to reference a table you must add a label to it. To add a label to your table simply include a `:name:` parameter followed by the label of your table. In order to add a numbered reference, you must also include a table title. See example above.

Syntax	Example	Result
`{numref}`label``	`{numref}`example-table` is an example.`	Table 2 is an example.
`{ref}`text <label>``	`This {ref}`table <example-table>` is an example.`	This table is an example.
`{numref}`text %s <label>``	`{numref}`Tbl %s <example-table>` is an example.`	Tbl 2 is an example.

Admonitions

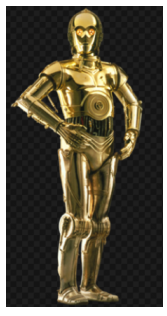
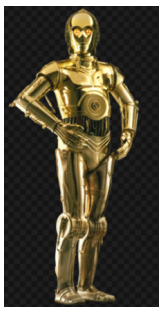
Syntax	Example	Result
``{admonition} Title text ```	```{admonition} This is a title An example of an admonition with a title. ```	**This is a title** An example of an admonition with a title.
``{note} text ``` or ```{note} text some more text... ```	```{note} Notes require **no** arguments, so content can start here. ```	**Note** Notes require **no** arguments, so content can start here.
``{warning} text some more text... ```	```{warning} This is an example of a warning directive. ```	**Warning** This is an example of a warning directive.
``{tip} text some more text... ```	```{tip} This is an example of a tip directive. ```	**Tip** This is an example of a tip directive.
``{caution} text some more text... ```	```{caution} This is an example of a caution directive. ```	**Caution** This is an example of a caution directive.
``{attention} text some more text... ```	```{attention} This is an example of an attention directive. ```	**Attention** This is an example of an attention directive.
``{danger} text some more text... ```	```{danger} This is an example of a danger directive. ```	**Danger** This is an example of a danger directive.
``{error} text some more text... ```	```{error} This is an example of an error directive. ```	**Error** This is an example of an error directive.

Syntax	Example	Result
``{hint} text some more text... ```	```{hint} This is an example of a hint directive. ```	**Hint** This is an example of a hint directive.
``{important} text some more text... ```	```{important} This is an example of an important directive. ```	**Important** This is an example of an important directive.

Figures and images

Note

Content is not permitted in the image directive.

Syntax	Example	Result
``{figure} ./path/to/figure.jpg :name: label caption ```	```{figure} ../images/C-3PO_droid.png :height: 150px :name: figure-example Here is my figure caption! ```	 ***Fig. 15*** Here is my figure caption!
``{image} ./path/to/figure.jpg :name: label ```	```{image} ../images/C-3PO_droid.png :height: 150px :name: image-example ```	

See Images and figures and Markdown files for more information.

Referencing figures

Syntax	Example	Result
`{numref}`label``	`{numref}`figure-example`is a figure example.`	Fig. 15 is a figure example.
`{numref}`text %s <label>``	`{numref}`Figure %s <figure-example>` is an example.`	Figure 15 is an example.
`{ref}`text <label>``	`This {ref}`figure <figure-example>` is an example.`	This figure is an example.

Referencing images

Syntax	Example	Result
`{ref}`text <label>``	`This {ref}`image <image-example>` is an example.`	This image is an example.

Math

Syntax	Example	Result
Inline	`This is an example of an inline equation $z=\sqrt{x^2+y^2}$.`	This is an example of an inline equation $z = \sqrt{x^2 + y^2}$.
Math blocks	`This is an example of a math block` `$$` `z=\sqrt{x^2+y^2}` `$$`	This is an example of a math block $$z = \sqrt{x^2 + y^2}$$
Math blocks with labels	`This is an example of a math block with a label` `$$` `z=\sqrt{x^2+y^2}` `$$ (mylabel)`	This is an example of a math block with a label $$z = \sqrt{x^2 + y^2} \tag{6}$$
Math directives	`This is an example of a math directive with a label` ```` ```{math} ```` `:label: eq-label` `z=\sqrt{x^2+y^2}` ```` ``` ````	This is an example of a math directive with a label $$z = \sqrt{x^2 + y^2} \tag{7}$$

See Math and equations for more information.

Referencing math directives

Syntax	Example	Result
`{eq}`label``	`Check out equation {eq}`eq-label`.`	Check out equation (7).

Code

In-line code

Example:

```
Wrap in-line code blocks in backticks: `boolean example = true;`.
```

Result:

Wrap in-line code blocks in backticks: `boolean example = true;`.

Code and syntax highlighting

v: stable

Example:

````
```python
note = "Python syntax highlighting"
print(node)
```
````

or

````
```
No syntax highlighting if no language
is indicated.
```
````

Result:

```
note = "Python syntax highlighting"
print(node)
```

or

```
No syntax highlighting if no language
is indicated.
```

Executable code

Warning

Make sure to include this front-matter YAML block at the beginning of your `.ipynb` or `.md` files.

```
---
jupytext:
  formats: md:myst
  text_representation:
    extension: .md
    format_name: myst
kernelspec:
  display_name: Python 3
  language: python
  name: python3
---
```

Example:

````
```{code-cell} ipython3
note = "Python syntax highlighting"
print(note)
```
````

Result:

```
note = "Python syntax highlighting"
print(note)
```

```
Python syntax highlighting
```

See Notebooks written entirely in Markdown for more information.

Tags

The following `tags` can be applied to code cells by introducing them as options:

Tag option	Description	Example
`"full-width"`	Cell takes up all of the horizontal space	```` ```{code-cell} ipython3 :tags: ["full-width"] print("This is a test.") ``` ````
`"output_scroll"`	Make output cell scrollable	```` ```{code-cell} ipython3 :tags: ["output_scroll"] for ii in range(100): print("This is a test.") ``` ````
`"margin"`	Move code cell to the right margin	```` ```{code-cell} ipython3 :tags: ["margin"] print("This is a test.") ``` ````
`"hide-input"`	Hide cell but the display the outputs	```` ```{code-cell} ipython3 :tags: ["hide-input"] print("This is a test.") ``` ````
`"hide-output"`	Hide the outputs of a cell	```` ```{code-cell} ipython3 :tags: ["hide-output"] print("This is a test.") ``` ````
`"hide-cell"`	Hides inputs and outputs of code cell	```` ```{code-cell} ipython3 :tags: ["hide-cell"] print("This is a test.") ``` ````
`"remove-input"`	Remove the inputs of a cell	```` ```{code-cell} ipython3 :tags: ["remove-input"] print("This is a test.") ``` ````
`"remove-output"`	Remove the outputs of a cell	```` ```{code-cell} ipython3 :tags: ["remove-output"] print("This is a test.") ``` ````
`"remove-cell"`	Remove the entire code cell	```` ```{code-cell} ipython3 :tags: ["remove-cell"] print("This is a test.") ``` ````

Tag option	Description	Example
`"raises-exception"`	Mark cell as “expected to error”	```` ```{code-cell} ipython3 :tags: ["raises-exception"] while True print('Hello world') ``` ````

Gluing variables

Example:

```
```{code-cell} ipython3
from myst_nb import glue
my_variable = "here is some text!"
glue("glued_text", my_variable)
```

Here is an example of how to glue text: {glue:}`glued_text`
```

Result:

```ipython3
from myst_nb import glue
my_variable = "here is some text!"
glue("glued_text", my_variable)
```

```
'here is some text!'
```

Here is an example of how to glue text: 'here is some text!'

See Gluing variables in your notebook for more information.

Gluing numbers

Example:

```
```{code-cell} ipython3
from myst_nb import glue
import numpy as np
import pandas as pd

ss = pd.Series(np.random.randn(4))
ns = pd.Series(np.random.randn(100))

glue("ss_mean", ss.mean())
glue("ns_mean", ns.mean(), display=False)
```

Here is an example of how to glue numbers: {glue:}`ss_mean` and {glue:}`ns_mean`.
```

Result:

```ipython3
from myst_nb import glue
import numpy as np
import pandas as pd

ss = pd.Series(np.random.randn(4))
ns = pd.Series(np.random.randn(100))

glue("ss_mean", ss.mean())
glue("ns_mean", ns.mean(), display=False)
```

```
0.08835706501360399
```

Here is an example of how to glue numbers: 0.08835706501360399 and -0.039561806871167955.

See Gluing variables in your notebook for more information.

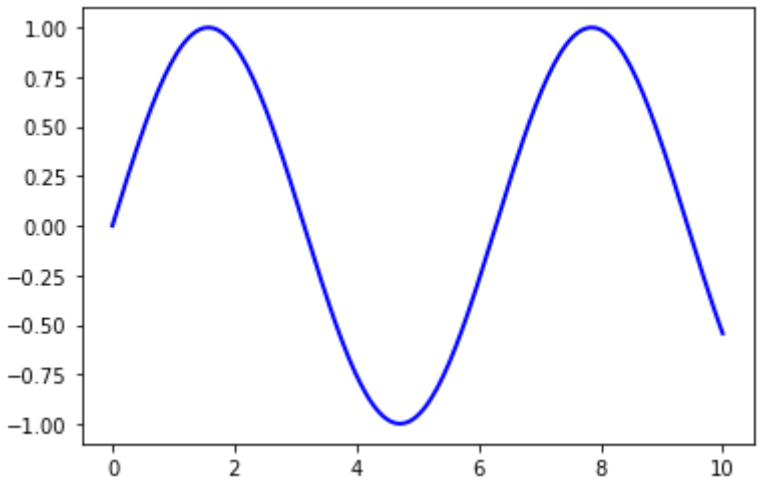
Gluing visualizations

Example:

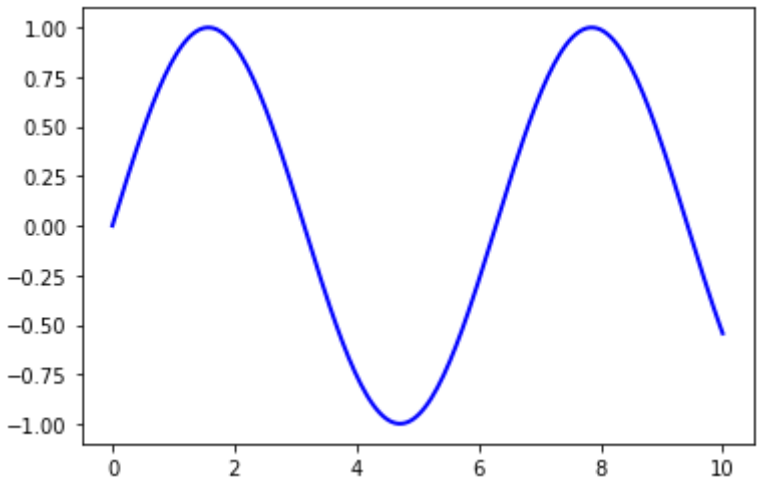
````
```{code-cell} ipython3
from myst_nb import glue
import matplotlib.pyplot as plt
import numpy as np

x = np.linspace(0, 10, 200)
y = np.sin(x)
fig, ax = plt.subplots()
ax.plot(x, y, 'b-', linewidth=2)

glue("glued_fig", fig, display=False)
```

This is an inline glue example of a figure: {glue:}`glued_fig`.
This is an example of pasting a glued output as a block:
```{glue:} glued_fig
```
````

Result:

```ipython3
from myst_nb import glue
import matplotlib.pyplot as plt
import numpy as np

x = np.linspace(0, 10, 200)
y = np.sin(x)
fig, ax = plt.subplots()
ax.plot(x, y, 'b-', linewidth=2)

glue("glued_fig", fig, display=False)
```



This is an inline glue example of a figure:  . This is an example of pasting a glued output as a block:



See Gluing variables in your notebook for more information.

Gluing math

Example:

````
```{code-cell} ipython3
import sympy as sym
x, y = sym.symbols('x y')
z = sym.Function('z')
z = sym.sqrt(x**2+y**2)
glue("example_eq", z, display=False)
```

To glue a math equation try
```{glue:math} example_eq
:label: glue-eq-example
```
````

Result:

```{code-cell} ipython3
import sympy as sym
x, y = sym.symbols('x y')
z = sym.Function('z')
z = sym.sqrt(x**2+y**2)
glue("example_eq", z, display=False)
```

To glue a math equation try:

$$\sqrt{x^2 + y^2} \tag{}$$

See Store code outputs and insert into content for more information.

Reference documents

Syntax	Example	Result
`{doc}path/to/document`	`See {doc}../content/citations for more information.`	See Citations and bibliographies for more information.
`{doc}text <path/to/document>`	`See {doc}here <../content/citations> for more information.`	See here for more information.

Footnotes

> **Note**
>
> Footnotes are displayed at the very bottom of the page.

Syntax	Example	Result
`[^ref]` `[^ref]: Footnote text`	`This is an example of a footnote. [^footnote1]` `[^footnote1]: The definition for referencing footnotes is generally placed at the bottom of the document.`	This is a footnote reference.[1]

See Footnotes for more information.

Citations

Note

Make sure you have a reference bibtex file. You can create one by running `touch references.bib` or view a **`references.bib`** example.

Syntax	Example	Result
`{cite}mybibtexcitation`	`This example generates the following citation {cite}perez2011python.`	This example generates the following citation [Perez *et al.*, 2011].

To include a list of citations mentioned in the document, introduce the `bibliography` directive

```
```{bibliography}
:filter: docname in docnames
```
```

See Citations and bibliographies for more information.

[1] This **is** the footnote definition.