**Format Text in Jupyter Notebook with Markdown**

**Markdown Cells in Jupyter Notebook**

In the previous chapter on Jupyter Notebook, you learned how to add new Markdown cells to your Jupyter Notebook files using Menu tools and Keyboard Shortcuts to create new cells.

| **Function** | **Keyboard Shortcut** | **Menu Tools** |
| --- | --- | --- |
| Create new cell | Esc + a (above), Esc + b (below) | Insert→ Insert Cell Above OR Insert → Insert Cell Below |
| Copy Cell | c | Copy Key |
| Paste Cell | v | Paste Key |

You also learned how to change the default type of the cell by clicking in the cell and selecting a new cell type (e.g. Markdown) in the cell type menu in the toolbar. Furthermore, you learned that in a Jupyter Notebook file, you can double-click in any Markdown cell to see the syntax, and then run the cell again to see the Markdown formatting.

**Note:** if you type text in a Markdown cell with no additional syntax, the text will appear as regular paragraph text. You can add additional syntax to that text to format it in different ways.

On this page, you will learn basic Markdown syntax that you can use to format text in Jupyter Notebook files.

**Section Headers**

You can create a heading using the pound (#) sign. For the headers to render properly, there must be a space between the # and the header text.

Heading one is denoted using one # sign, heading two is denoted using two ## signs, etc, as follows:

## Heading Two

### Heading Three

#### Heading Four

Here is a sample of the rendered Markdown:

**Heading Three**

**Heading Four**

**Note**: the titles on this page are actually formatted using Markdown (e.g. the words **Section Headers** above are formatted as a heading two).

**Lists**

You can also use Markdown to create lists using the following syntax:

\* This is a bullet list

\* This is a bullet list

\* This is a bullet list

1. And you can also create ordered lists

2. by using numbers

3. and listing new items in the lists

4. on their own lines

It will render as follows:

* This is a bullet list
* This is a bullet list
* This is a bullet list

And you can also create ordered lists

1. by using numbers
2. and listing new items in the lists
3. on their own lines

Notice that you have space between the \* or 1. and the text. The space triggers the action to create the list using Markdown.

**Bold and Italicize**

You can also use \*\* to bold or \* to italicize words. To bold and italicize words, the symbols have to be touching the word and have to be repeated before and after the word using the following syntax:

*\*These are italicized words, not a bullet list\**

**\*\*These are bold words, not a bullet list\*\***

\* **\*\*This is a bullet item with bold words\*\***

\* *\*This is a bullet item with italicized words\**

It will render as follows:

*These are italicized words, not a bullet list* **These are bold words, not a bullet list**

* **This is a bullet item with bold words**
* *This is a bullet item with italicized words*

**Highlight Code**

If you want to highlight a function or some code within a plain text paragraph, you can use one backtick on each side of the text like this:

`Here is some code!`

which renders like this:

Here is some code!

The symbol used is the backtick, or grave; not an apostrophe (on most US keyboards, it is on the same key as the tilde (~)).

**Horizontal Lines (Rules)**

You can also create a horizontal line or rule to highlight a block of Markdown syntax (similar to the highlighting a block of code using the backticks):

\*\*\*

Here is some important text!

\*\*\*

which renders like this:

Here is some important text!

**Hyperlinks**

You can also use HTML in Markdown cells to create hyperlinks to websites using the following syntax:

<a href="url" target="\_blank">hyperlinked words</a>

You can identify the words that will be hyperlinked (i.e. prompt a web page to open when clicked) by replacing hyperlinked words in the example above.

For example, the following syntax:

Our program website can be found at <a href="[http://earthdatascience.org](http://earthdatascience.org/)" target="\_blank">this link</a>.

will render as follows with this link as the hyperlinked words:

Our program website can be found at [this link](http://earthdatascience.org/).

**Render Images**

You can also use Markdown to link to images on the web using the following syntax:

![alt text here](url-to-image-here)

The alt text is the alternative text that appears if an image fails to load on webpage; it is also used by screen-reading tools to identify the image to users of the screen-reading tools.

For example, the following syntax:

![Markdown Logo is here.](<https://www.fullstackpython.com/img/logos/markdown.png>)

will render as follows with an alt text of Markdown Logo is here.:

**Local Images Using Relative Computer Paths**

You can also add images to a Markdown cell using relative paths to files in your directory structure using:

![alt text here](path-to-image-here)

For relative paths (images stored on your computer) to work in Jupyter Notebook, you need to place the image in a location on your computer that is RELATIVE to your .ipynb file. This is where good file management becomes extremely important.

For a simple example of using relative paths, imagine that you have a subdirectory named images in your earth-analytics directory (i.e. earth-analytics/images/).

If your Jupyter Notebook file (.ipynb) is located in root of this directory (i.e. earth-analytics/notebook.ipynb), and all images that you want to include in your report are located in the images subdirectory (i.e. earth-analytics/images/), then the path that you would use for each image is:

images/image-name.png

If all of your images are in the images subdirectory, then you will be able to easily find them. This also follows good file management practices because all of the images that you use in your report are contained within your project directory.