

Example Jupyter Notebook

The R4DS Online Learning Community

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Welcome

This is a companion for the book [Practical Python Programming](#) by David Beazley.

This website is being developed by the [R4DS Online Learning Community](#). Follow along and [join the community](#) to participate.

This companion follows the [R4DS Online Learning Community Code of Conduct](#).

Book club meetings

- Each week, a volunteer will present a chapter from the book.
 - This is the best way to learn the material.
- Presentations will usually consist of a review of the material, a discussion, and/or a demonstration of the principles presented in that chapter.
- More information about how to present is available in the GitHub repo.
- Presentations will be recorded and will be available on the [R4DS Online Learning Community YouTube Channel](#).

Part I

1. Introduction to Python

Learning Objectives

- Learning objective 1

Notes

Slides

[insert slides]

Notes

[insert notes]

Video

Cohort 01

[insert video here]

Part II

2. Working with Data

Learning Objectives

- Learning objective 1

Notes

Slides

[insert slides]

Notes

[insert notes]

Video

Cohort 01

[insert video here]

Part III

Examples

1 Example Quarto Document

1.1 Quarto

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see <https://quarto.org>.

1.2 Running Code

When you click the **Render** button a document will be generated that includes both content and the output of embedded code. You can embed code like this:

```
1 + 1
```

2

You can add options to executable code like this

4

The `echo: false` option disables the printing of code (only output is displayed).

2 Example Jupyter Notebook

2.1 NumPy

```
import numpy as np
a = np.arange(15).reshape(3, 5)
a
```

```
array([[ 0,  1,  2,  3,  4],
       [ 5,  6,  7,  8,  9],
       [10, 11, 12, 13, 14]])
```

2.2 Matplotlib

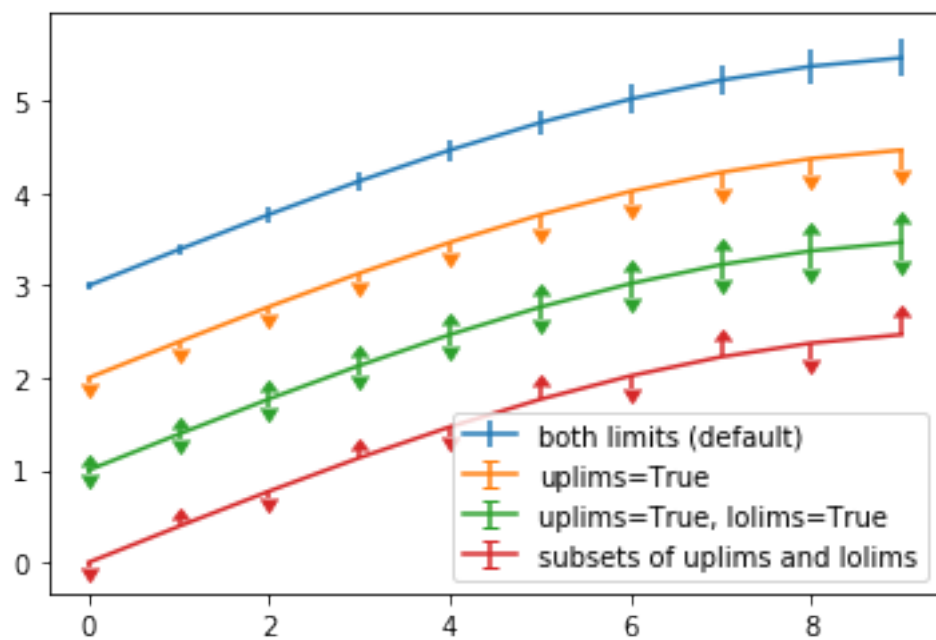
```
import matplotlib.pyplot as plt

fig = plt.figure()
x = np.arange(10)
y = 2.5 * np.sin(x / 20 * np.pi)
yerr = np.linspace(0.05, 0.2, 10)

plt.errorbar(x, y + 3, yerr=yerr, label='both limits (default)')
plt.errorbar(x, y + 2, yerr=yerr, uplims=True, label='uplims=True')
plt.errorbar(x, y + 1, yerr=yerr, uplims=True, lolims=True,
             label='uplims=True, lolims=True')

upperlimits = [True, False] * 5
lowerlimits = [False, True] * 5
plt.errorbar(x, y, yerr=yerr, uplims=upperlimits, lolims=lowerlimits,
             label='subsets of uplims and lolims')

plt.legend(loc='lower right')
plt.show(fig)
```



How to add to the book

Set up Quarto

This book is made with [Quarto](#). Please see the [Get Started](#) chapter of the Quarto documentation to learn how to install and run Quarto in your IDE.

Add to book

Once you have everything set up, forked the repo, and cloned to your computer, you can add a new chapter to the book:

- In the `_quarto.yml` file, under `chapters`, add a part with your chapter like so:

```
- part: 01_main.qmd
  chapters:
    - 01_notes.qmd
    - 01_video.qmd
```

Create the corresponding files in the main directory. You can use `.qmd` or `.ipynb` files that run computations if you would like, or just plain `.md` files. Check out the files under Examples to see how they are done.

Render the book

Once you have added and edited your files, don't forget to render the book:

```
quarto render
```


Push up to GitHub

Push your changes to your forked repo and then create a pull request for the R4DS admins to merge your changes.