
Sphinx Tutorial

Release 0.1

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Lumache (/lu'make/) is a Python library for cooks and food lovers that creates recipes mixing random ingredients. It pulls data from the [Open Food Facts database](#) and offers a *simple* and *intuitive* API.

Note: This project is under active development.

Check out the [Usage](#) section for further information, including how to *install* the project.

NOTEBOOKS

1.1 Output Examples Inner

This notebook is designed to provide examples of different types of outputs that can be used to test the JupyterLab frontend and other Jupyter frontends.

```
[27]: from IPython.display import display
      from IPython.display import (
          HTML, Image, Latex, Math, Markdown, SVG
      )
```

1.1.1 Text

Plain text:

```
[28]: text = """Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam urna
      libero, dictum a egestas non, placerat vel neque. In imperdiet iaculis fermentum.
      Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia
      Curae; Cras augue tortor, tristique vitae varius nec, dictum eu lectus. Pellentesque
      id eleifend eros. In non odio in lorem iaculis sollicitudin. In faucibus ante ut
      arcu fringilla interdum. Maecenas elit nulla, imperdiet nec blandit et, consequat
      ut elit."""
      print(text)
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam urna
 libero, dictum a egestas non, placerat vel neque. In imperdiet iaculis fermentum.
 Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia
 Curae; Cras augue tortor, tristique vitae varius nec, dictum eu lectus. Pellentesque
 id eleifend eros. In non odio in lorem iaculis sollicitudin. In faucibus ante ut
 arcu fringilla interdum. Maecenas elit nulla, imperdiet nec blandit et, consequat
 ut elit.

Text as output:

```
[29]: text
[29]: 'Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam urna\nlibero, dictum a
      ↪egestas non, placerat vel neque. In imperdiet iaculis fermentum. \nVestibulum ante
      ↪ipsum primis in faucibus orci luctus et ultrices posuere cubilia \nCurae; Cras augue
      ↪tortor, tristique vitae varius nec, dictum eu lectus. Pellentesque \nid eleifend eros.
      ↪In non odio in lorem iaculis sollicitudin. In faucibus ante ut \narcu fringilla
      ↪interdum. Maecenas elit nulla, imperdiet nec blandit et, consequat \nut elit'
      (continues on next page)
```

(continued from previous page)

Standard error:

```
[30]: import sys; print('this is stderr', file=sys.stderr)
      this is stderr
```

1.1.2 HTML

```
[31]: div = HTML('<div style="width:100px;height:100px;background:grey;" />')
      div
```

```
[31]: <IPython.core.display.HTML object>
```

```
[32]: for i in range(3):
      print(10**10)
      display(div)
```

```
10000000000
```

```
<IPython.core.display.HTML object>
```

```
10000000000
```

```
<IPython.core.display.HTML object>
```

```
10000000000
```

```
<IPython.core.display.HTML object>
```

1.1.3 Markdown

```
[33]: md = Markdown("""
      ### Subtitle

      This is some *markdown* text with math  $F=ma$ .

      """)
      md
```

```
[33]: Subtitle
```

This is some *markdown* text with math $F = ma$.

```
[34]: display(md)
```

Subtitle

This is some *markdown* text with math $F = ma$.

1.1.4 LaTeX

Examples LaTeX in a markdown cell:

$$\nabla \times \vec{\mathbf{B}} - \frac{1}{c} \frac{\partial \vec{\mathbf{E}}}{\partial t} = \frac{4\pi}{c} \vec{\mathbf{j}} \quad (1.1)$$

$$\nabla \cdot \vec{\mathbf{E}} = 4\pi\rho \quad (1.2)$$

$$\nabla \times \vec{\mathbf{E}} + \frac{1}{c} \frac{\partial \vec{\mathbf{B}}}{\partial t} = \vec{\mathbf{0}} \quad (1.3)$$

$$\nabla \cdot \vec{\mathbf{B}} = 0 \quad (1.4)$$

```
[35]: math = Latex("$F=ma$")
      math
```

```
[35]: F = ma
```

```
[36]: maxwells = Latex(r"""
\begin{align}
\nabla \times \vec{\mathbf{B}} - \frac{1}{c} \frac{\partial \vec{\mathbf{E}}}{\partial t} &= \frac{4\pi}{c} \vec{\mathbf{j}} \\
\nabla \cdot \vec{\mathbf{E}} &= 4\pi \rho \\
\nabla \times \vec{\mathbf{E}} + \frac{1}{c} \frac{\partial \vec{\mathbf{B}}}{\partial t} &= \vec{\mathbf{0}} \\
\nabla \cdot \vec{\mathbf{B}} &= 0
\end{align}
""")
maxwells
```

```
[36]:
```

$$\nabla \times \vec{\mathbf{B}} - \frac{1}{c} \frac{\partial \vec{\mathbf{E}}}{\partial t} = \frac{4\pi}{c} \vec{\mathbf{j}} \quad (1.5)$$

$$\nabla \cdot \vec{\mathbf{E}} = 4\pi\rho \quad (1.6)$$

$$\nabla \times \vec{\mathbf{E}} + \frac{1}{c} \frac{\partial \vec{\mathbf{B}}}{\partial t} = \vec{\mathbf{0}} \quad (1.7)$$

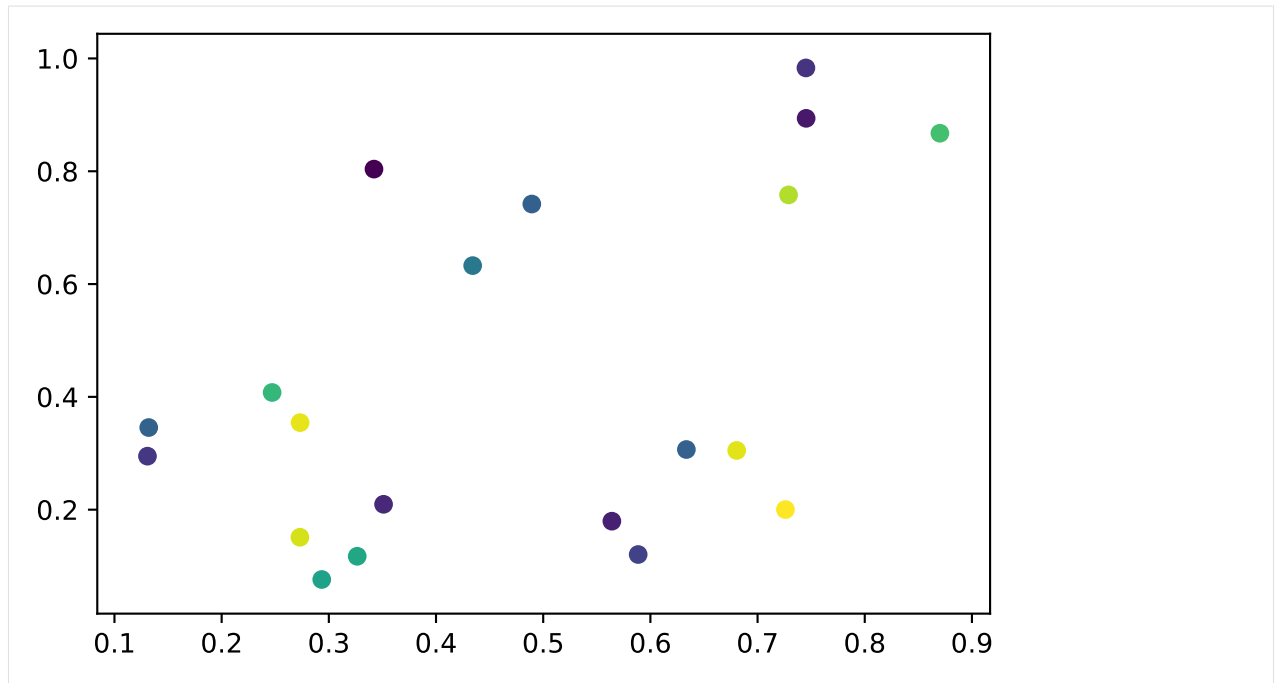
$$\nabla \cdot \vec{\mathbf{B}} = 0 \quad (1.8)$$

1.1.5 PDF

```
[37]: %matplotlib inline
import matplotlib.pyplot as plt
import numpy as np
from IPython.display import set_matplotlib_formats
set_matplotlib_formats('pdf')
```

```
[38]: plt.scatter(np.random.rand(20), np.random.rand(20), c=np.random.rand(20))
```

```
[38]: <matplotlib.collections.PathCollection at 0x7f48b5cdf5c0>
```



1.1.6 Image

```
[39]: img = Image("https://apod.nasa.gov/apod/image/1707/GreatWallMilkyWay_Yu_1686.jpg")
img
```

[39]:



Set the image metadata:

```
[40]: img2 = Image(  
    "https://apod.nasa.gov/apod/image/1707/GreatWallMilkyWay_Yu_1686.jpg",  
    width=100,  
    height=200  
)  
img2
```

[40]:



1.1.7 SVG

```
[41]: svg_source = """
<svg width="400" height="110">
  <rect width="300" height="100" style="fill:#E0E0E0;" />
</svg>
"""

svg = SVG(svg_source)
svg
```

```
[41]:
```

```
[42]: for i in range(3):
      print(10**10)
      display(svg)
```

```
1000000000000
```

```
1000000000000
```

```
1000000000000
```

1.1.8 HTML Tables

```
[47]: from vega_datasets import data
```

```
[50]: df = data.cars()
```

```
[51]: df.head()
```

```
[51]:
```

	Name	Miles_per_Gallon	Cylinders	Displacement	\
0	chevrolet chevelle malibu	18.0	8	307.0	
1	buick skylark 320	15.0	8	350.0	
2	plymouth satellite	18.0	8	318.0	
3	amc rebel sst	16.0	8	304.0	
4	ford torino	17.0	8	302.0	

	Horsepower	Weight_in_lbs	Acceleration	Year	Origin
0	130.0	3504	12.0	1970-01-01	USA
1	165.0	3693	11.5	1970-01-01	USA
2	150.0	3436	11.0	1970-01-01	USA
3	150.0	3433	12.0	1970-01-01	USA
4	140.0	3449	10.5	1970-01-01	USA

Compared to a table in a Markdown cell:

Firstname

Lastname

Age

Jill

Smith

50

Eve

Jackson

94

USER GUIDE

Hello, user guide here.

3.1 Installation

To use Lumache, first install it using pip:

```
(.venv) $ pip install lumache
```