

Before doing anything else:

- Fork: <https://github.com/lswetlick/2024-ims-CI-project>
- Clone!
- Make an environment
- Pip install brewing pytest
- Run pytest to see if everything works!

Sphinx

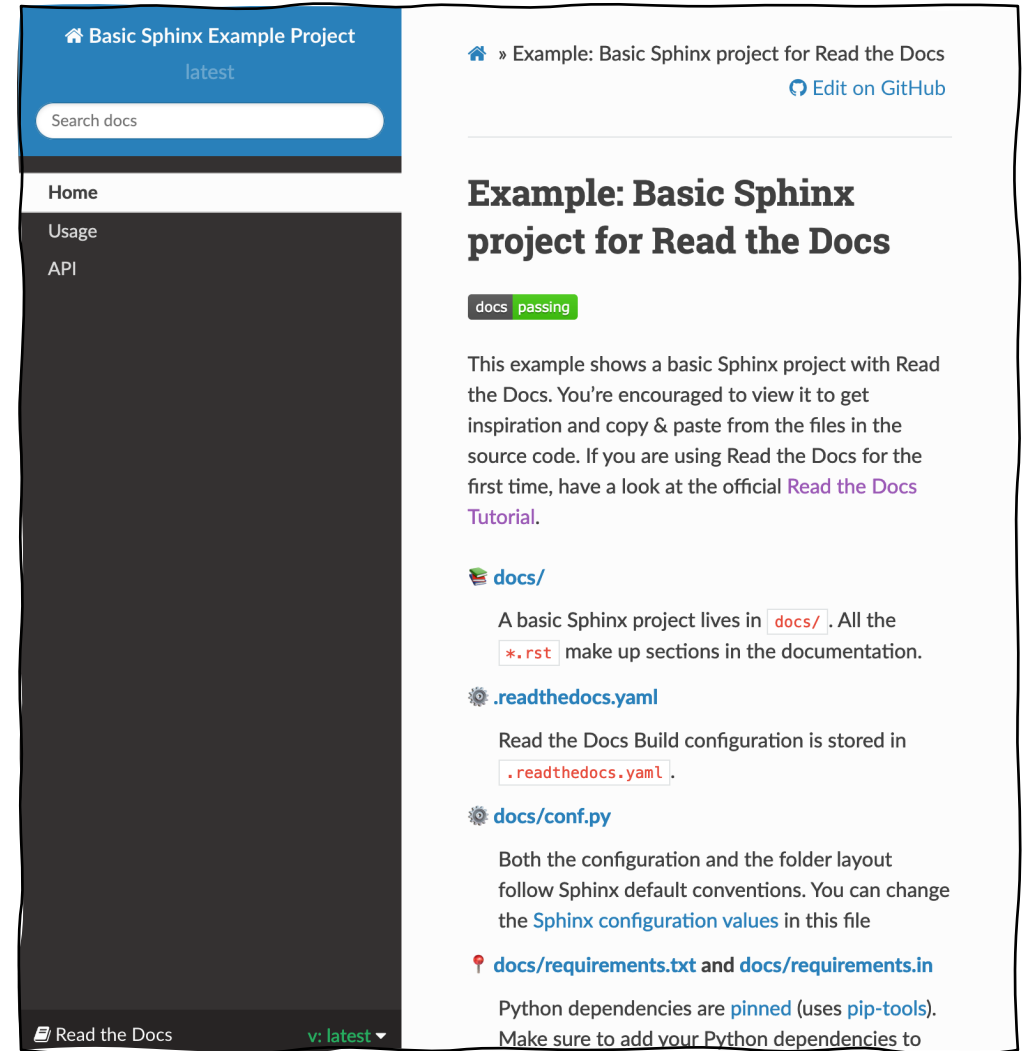
Lisa Schwetlick
Stuttgart 2024



Documentation

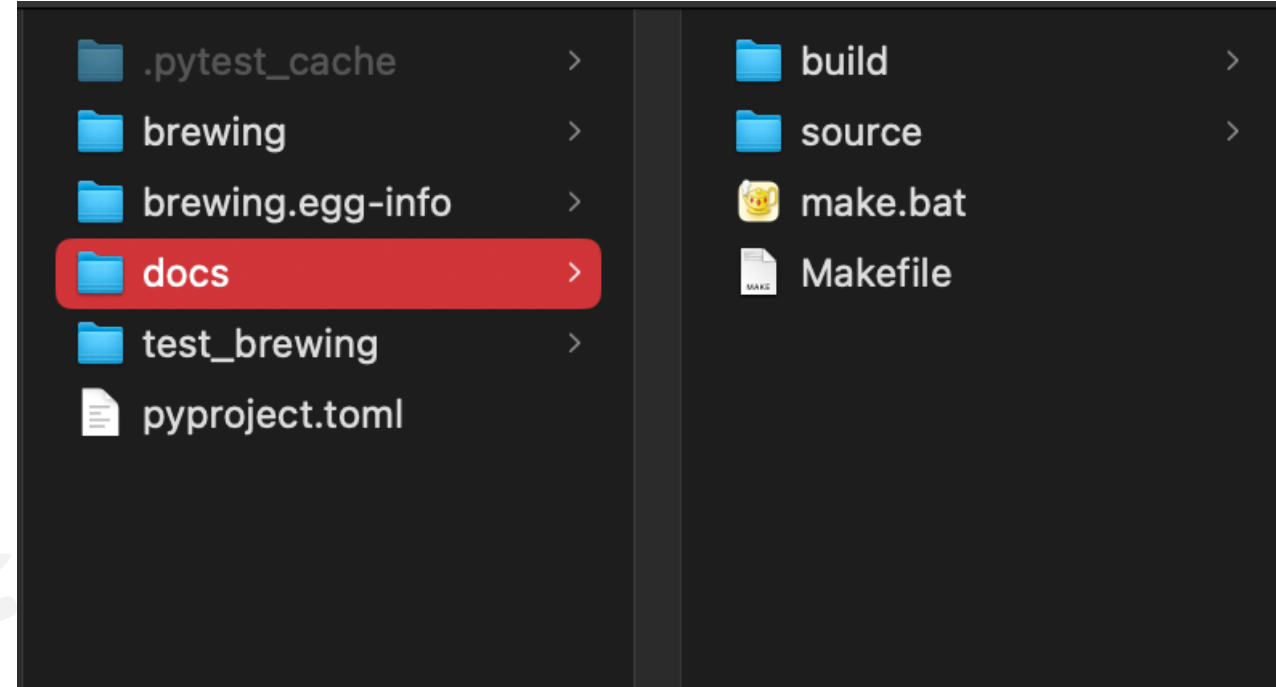
Aside from **comments** and **docstrings** we want a professional documentation!

- Why?
 - It makes your code much more usable
 - Nobody likes having to open the code files to find out what the function does
 - You can add examples and notebooks
 - It makes for a great portfolio to showcase your work!
- Example:
 - http://lisschwetlick.de/SceneWalk_ModeI/
 - <https://github.com/computational-psychology/stimupy>



Steps

1. In your environment
`pip install sphinx`
2. Make a folder called docs
3. Move to that folder
4. In your [my_project]/docs folder:
`sphinx-quickstart`
- separate folders: yes please!
5. In your docs folder:
`make html`
6. In the docs/build/html folder you will find index.html that contains your current documentation



Index.rst

- docs/source/index.rst
- You can write a kind of markdown, with all the information you like
- Make multi-page websites (multiple rst files)

```
.. Lisa documentation master file, created by
   sphinx-quickstart on Mon Mar  4 14:21:12 2024.
   You can adapt this file completely to your liking, but it should at least
   contain the root `toctree` directive.

Welcome to Lisa's documentation!
=====

.. toctree::
   :maxdepth: 2
   :caption: Contents:


Indices and tables
=====

* :ref:`genindex`
* :ref:`modindex`
* :ref:`search`
```

Exercise

- Go through the same steps as in slide 4
- Change something about your index.rst file
- Make html again and see the changes

Autodoc

- The main advantage of using something like sphinx is the autodocumentation features
 - Add your docstrings to the documentation page directly
 - If you change it in the code, it will update in the documentation too
- 1. Add the appropriate extensions to the conf.py file
- 2. Add the appropriate references to the index.rst

```
extensions = [  
  
    "sphinx.ext.duration",  
  
    "sphinx.ext.doctest",  
  
    "sphinx.ext.autodoc",  
  
    "sphinx.ext.autosummary",  
  
    "sphinx.ext.intersphinx",  
  
]
```

conf.py

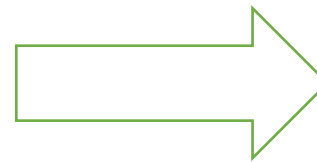
- Configuration file written in python
- You can add a lot of different configurations
 - Check out the like for examples and ideas
 - <https://www.sphinx-doc.org/en/master/examples.html>

```
extensions = [  
    "sphinx.ext.duration",  
    "sphinx.ext.doctest",  
    "sphinx.ext.autodoc",  
    "sphinx.ext.autosummary",  
    "sphinx.ext.intersphinx",  
]
```


Index.rst

- Conf.py has to import your package
 - They advise to add to PYTHONPATH. I recommend just installing your package with pip!

```
cooking
=====
.. automodule:: brewing.cooking
   :members:
```



Automatically
looks up your
docstrings

cooking

`brewing.cooking.simmer(potion, duration)`
Cooks the potion.

Updates simmer_duration and cooked attributes in the class instance.

Parameters

`potion` : *Potion instance*
The potion to be cooked.

`duration` : *int*
How long to cook the potion for [hours].

`brewing.cooking.stir(potion, direction)`
Stirs the potion.

Updates colour in the class instance.

Parameters

`potion` : *Potion instance*
The potion to be stirred.

`direction` : *{'clockwise', 'anti-clockwise'} str*
The direction in which the potions is to be stirred

readthedocs.io

- Hosting site for documentation pages
 - <https://docs.readthedocs.io/en/stable/tutorial/index.html>
1. Sign up
 2. Integrated with Github
 3. import any Github repo
 4. Add readthedocs.yaml file (see template)
 5. Make sure the path to the conf.py file is correct
 6. Your documentation is automatically built and updated!

Thank you!

