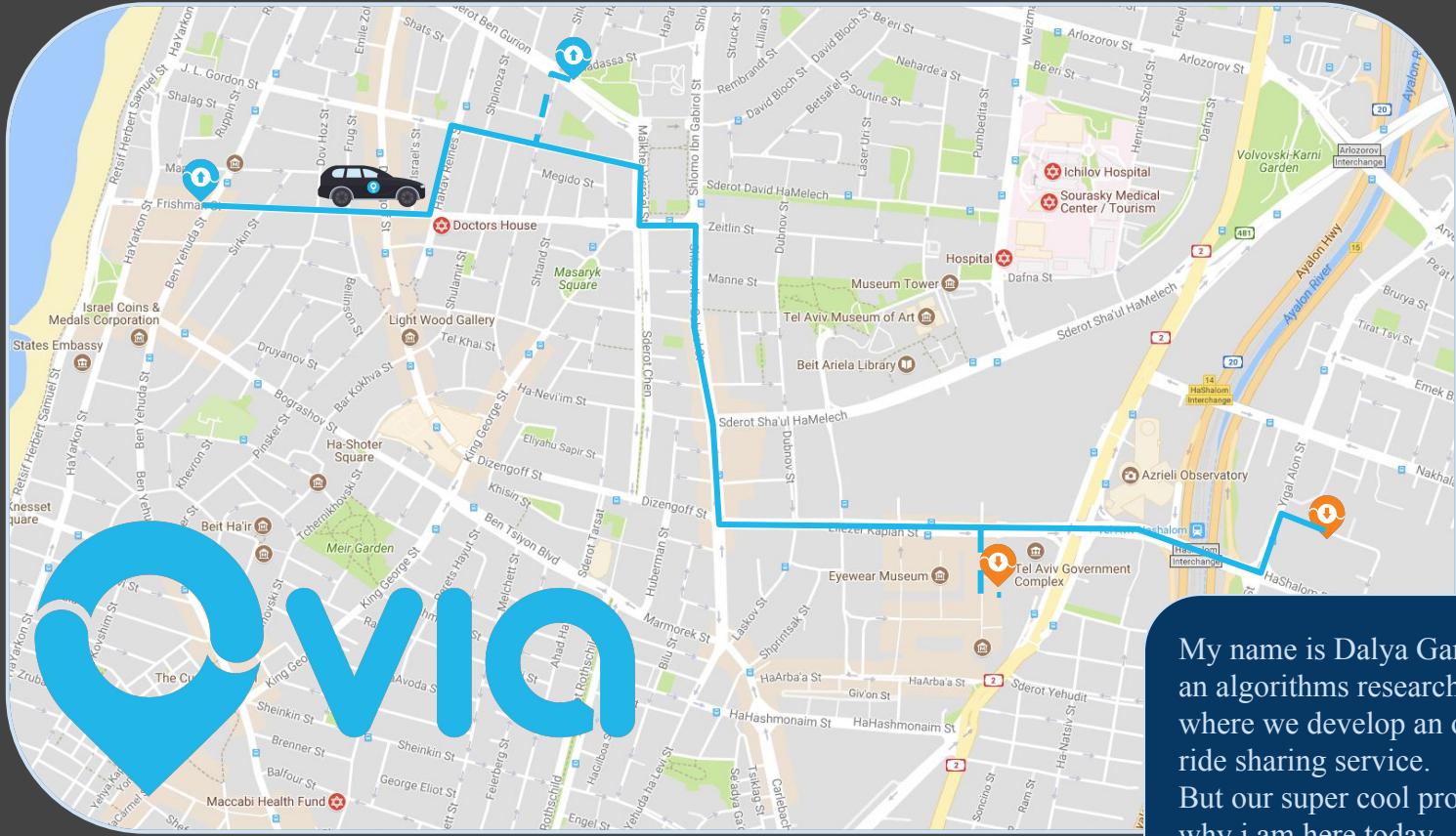


Help your colleagues help themselves - a Sphinx tutorial

Dalya Gartzman

github.com/DalyaG/Sphinx185



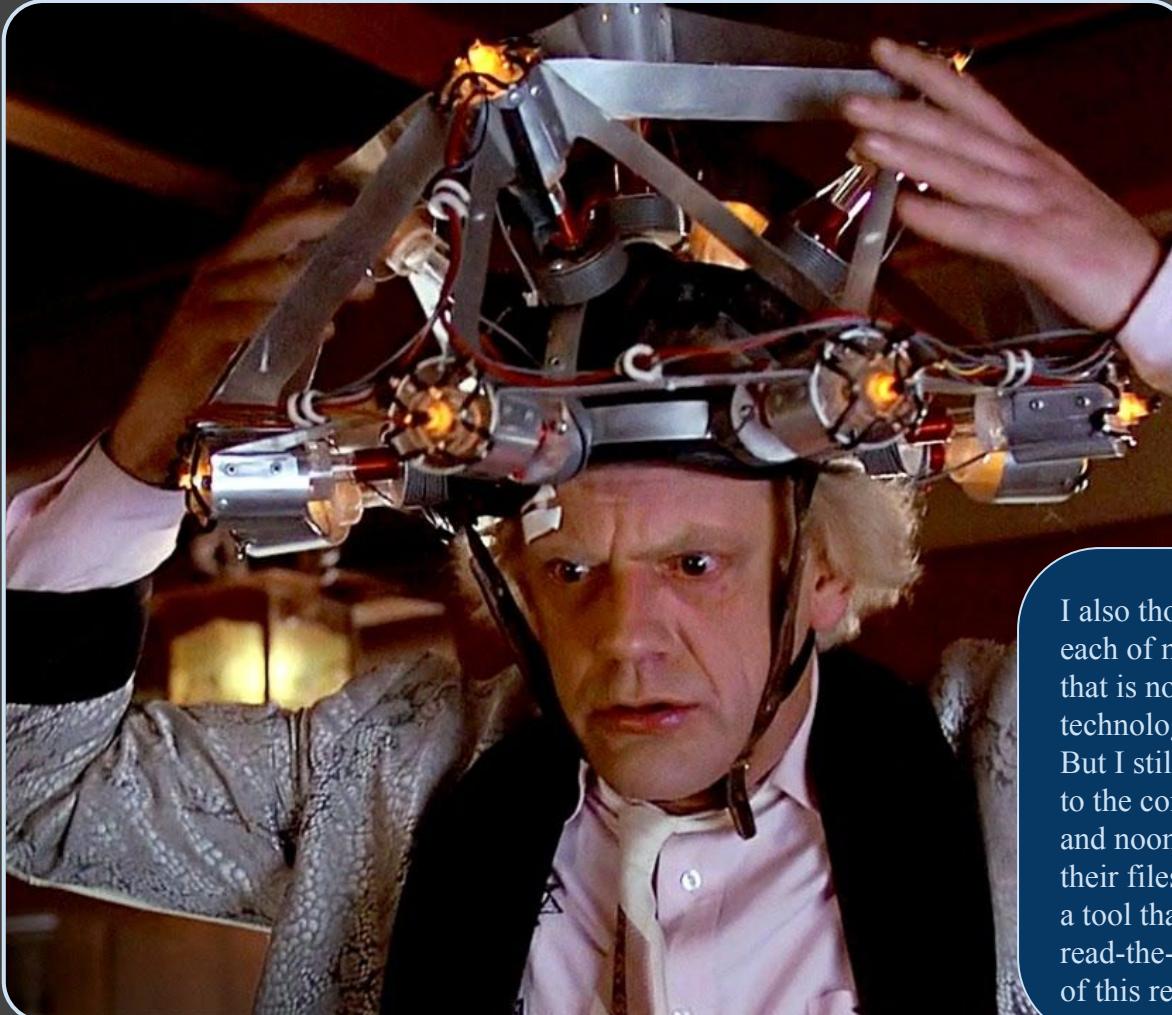
My name is Dalya Gartzman, I am an algorithms researcher in Via, where we develop an on demand ride sharing service. But our super cool product is not why i am here today.



I'm here because we have a really cool research repository that holds, well, our research, but also lots of scripts and modules that we write for ourselves but are for the common use. And the thing is, that in order to discover all the gems in this repo,



I would need to go over every file
and read the docstring to
understand whats in there, and i
wasnt going to do that



I also thought about browsing each of my colleagues brains, but that is not where the world is, technology-wise. But I still wanted an easy access to the content of the repository, and noone was going to wiki all their files, so my goal was to find a tool that will help me make a read-the-docs style documentation of this research repository



And that's how I stumbled upon Sphinx - that The Internet said will automagically do all the work for me, and it seemed really promissing

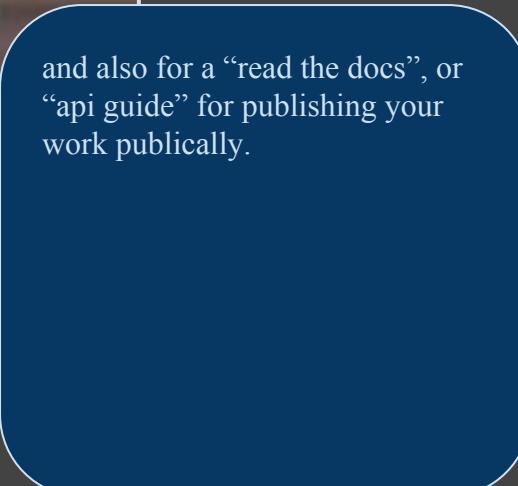


So i thought , hey, thats great, this package could be used also for documentation of inner
colebarative projects, like the
research repository i mentioned,

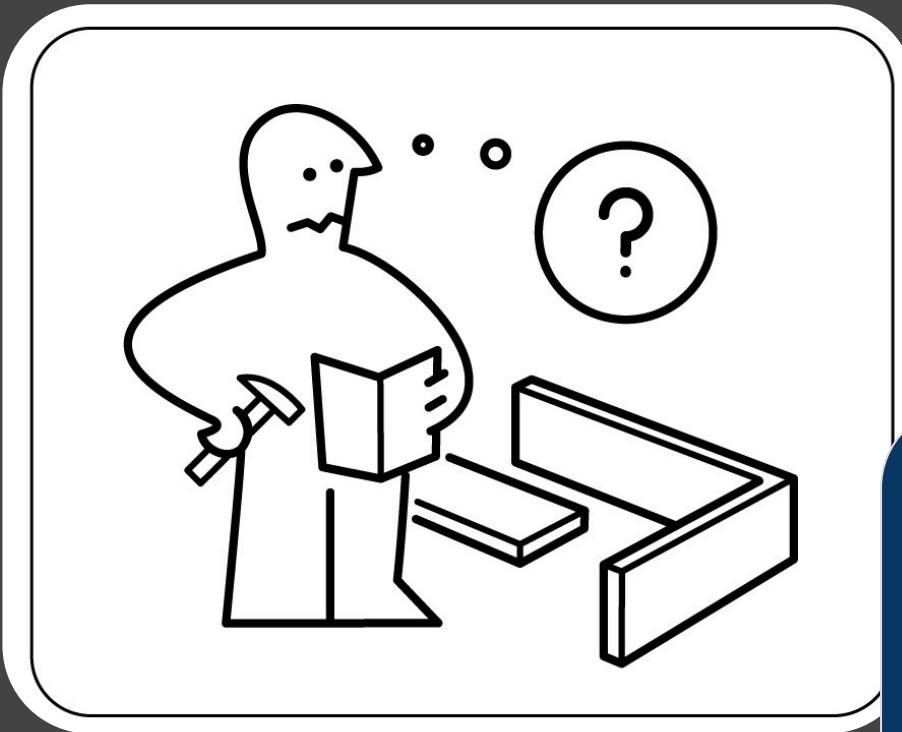
A scene from Toy Story featuring Woody and Buzz Lightyear. Woody, on the left, has a concerned expression. Buzz, on the right, is pointing his finger upwards and shouting. The word "PUBLISH" is overlaid in large white letters at the top of the image.

PUBLISH

PUBLISH EVERYTHING

A blue speech bubble containing text.

and also for a “read the docs”, or “api guide” for publishing your work publically.

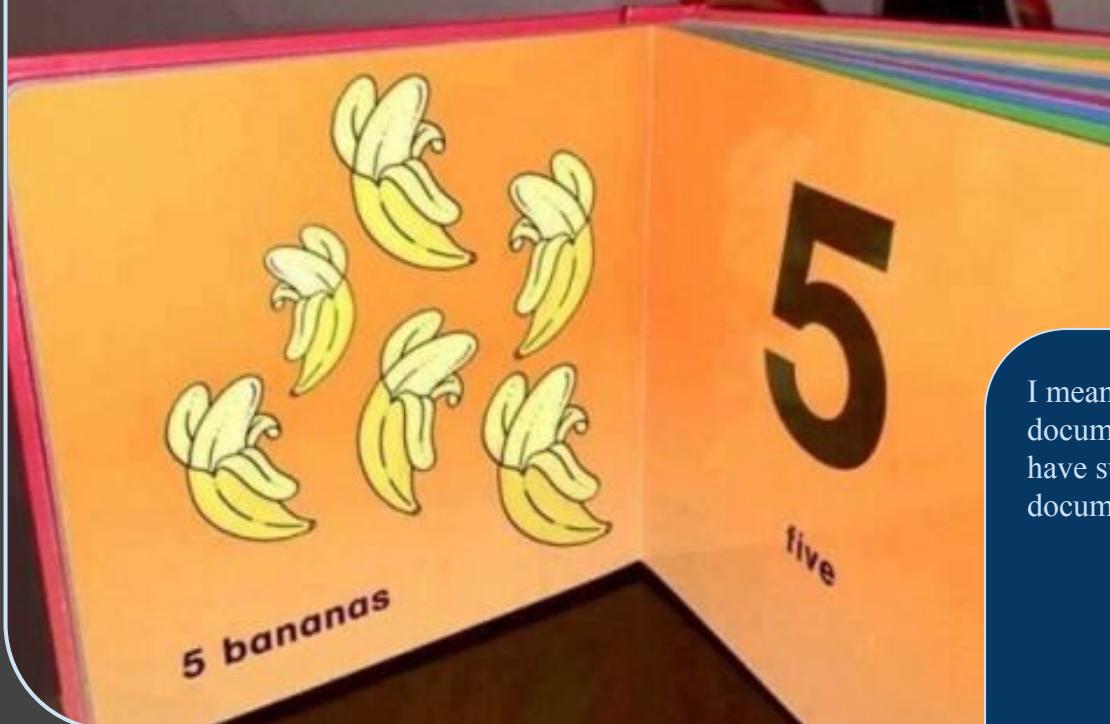


But when i tried using it i found
thats soo not how it goes, and i
couldnt figure out how it DOES
go!!



It seems like one of those many cases i come across, where once i would already know the basics, then it will be a smooth ride, but the onboarding stage is so damn frustrating i nearly abandoned my mission

YOU HAD ONE JOB



I mean, who would have thought a documentation package would have such terrible documentation??



So don't worry, I didn't, and I really like sphinx now, and my goal today is to make this beautiful tool accessible, and to help you sail through this onboarding stage.

READY PLAYER ONE

Press Start

Ready?

READY PLAYER ONE

Press Start



Let's start :)

Intro - What will we accomplish today?

So - what are we going to
accomplish today?

Intro - What will we accomplish today?

Sphinx185 documentation »

[next](#) | [modules](#) | [index](#)



Sphinx185

- [Euler's 185th Riddle](#)
- [Solver Runner](#)
- [Input Parser](#)
- [Naming Utils](#)
- [The ILP Manager class](#)
- [The main configurations file: conf.py](#)
- [How To Use This for YOUR Next Project :\)](#)

Quick search [Go](#)

Welcome to Sphinx185's documentation!

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The goal of this project is to help make [Sphinx](#) accessible and easy to use.
To use this for YOUR next project, browse this documentation and follow the instructions [here](#).
Feel as free as you can to copy, paste and change anything you see here.

The source code is available [here](#).
[Hope you find this useful!](#)
[DalyaG](#)

OK Let's get to business:

- [Euler's 185th Riddle](#)
- [Solver Runner](#)
- [Input Parser](#)
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- [The ILP Manager class](#)
- [The main configurations file: conf.py](#)
- [How To Use This for YOUR Next Project :\)](#)
- [Index](#)

Part I - Overview

In the first part I will give an overview about what is sphinx and how it can be useful for you

Intro - What will we accomplish today?

Sphinx185 documentation »



Sphinx185

- Euler's 185th Riddle
- Solver Runner
- Input Parser
- Naming Utils
- The ILP Manager class
- The main configurations file: conf.py

Quick search

Go

The main configurations file: conf.py

Below is the code for `conf.py`, the main configuration file that is used for generating this documentation. This file was originally made by running `sphinx-quickstart`. It was modified and customized such that, hopefully, it has a clearer structure, and is easier to re-modify for the sake

```
"""
This is the main file in which the configuration for the documentation is made.

"""

# -*- coding: utf-8 -*-

# Sphinx185 documentation build configuration file, created by
# sphinx-quickstart on Sat May 12 19:34:31 2018.

# DalyaG: This file was heavily modified from its original build.
# Hope you find this useful :)

# -- Define here your working directory

import os
import sys
sys.path.append(os.path.abspath('/Users/dalya/Documents/Sphinx185'))

# -- Some general info about the project

project = u'Sphinx185'
copyright = u'2018, DalyaG'
author = u'DalyaG'

# -- A few basic configurations

# The documentation in this project will be mostly generated from .rst files
# In this project, every auto-documented module/class has its own .rst file, under the main documentat
# which is rendered into an .html page.
# Get more information here: http://www.sphinx-doc.org/en/master/usage/restructuredtext/basics.html
source_suffix = ['.rst']
```

Part II - Main configuration file - conf.py

Then I will give a breif note regarding an important configurations file, that will give us a background to the main part -

Intro - What will we accomplish today?

How To Use This for YOUR Next Project :)

1. `pip install sphinx`
2. Copy the `documentation_template_for_your_next_project` folder in this repository, make it a subdirectory in your local project and rename it `documentation`.
3. Edit `conf.py` by searching the pattern `#CHNAGEME#` inside the file and follow the instructions.
4. Edit `index.rst` by following the inline instructions.
5. To add a page to your documentation:
 - a. Create a `.rst` file for the function/module you wish to document (you can use the templates supplied here), and
 - b. Add the name of the `.rst` file to the `toctree` in `index.rst`.
6. In terminal, inside the `documentation` folder, run `make html`.
(TIP OF THE WEEK: actually, always run `make clean html` to clear sphinx cache and build from scratch)
7. To view locally - open the file `documentation/_build/html/index.html` in your browser, and enjoy the read :)
8. To share - you can use [GitHub Pages](#) to host your documentation:
 - a. Copy the content of `documentation/_build/html/` into a new `docs` folder, under the root of the project.
 - b. Create an empty file `.nojekyll` inside `docs` folder
(this tells GitHub Pages to bypass the default `jekyll` themes and use the `html` and `css` in your project)
 - c. Push your changes to master branch.
 - d. In your repository on GitHub, go to “Settings” -> “GitHub Pages” -> “Source” and select “master branch /docs folder”.
 - e. Share your beautiful documentation site at https://<your_git_usrname>.github.io/<project_name>/

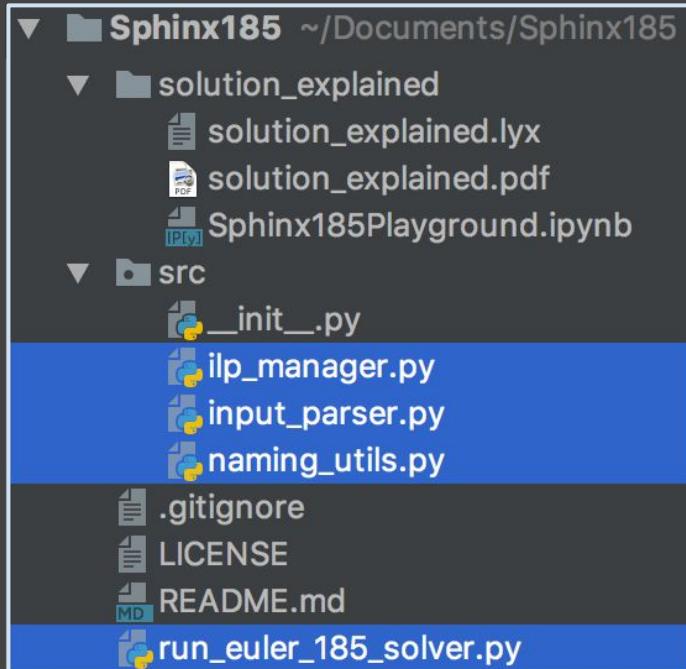
Part III - Document YOUR next project

In which I am going to walk you step-by-step through the process of creating a read-the-docs style documentation for YOUR next project. and we are going to do that using the repository I prepared for this talk.

Part I - Overview

I will start with some background:

Part I - Overview



The setting is this: I took one riddle from the Euler's project website, (which is a website with mathematical riddles that you solve using code) and I want to show my friend my solution - there is some background material such as the playground jupyter notebook, which are less important, and I want to share the three components of the solution, and the runner function.

Part I - Overview

38 commits 1 branch 0 releases 1 contributor MIT

Branch: master ▾ New pull request Create new file Upload files Find file Clone or download ▾

DalyaG updated readme Latest commit 67ca419 2 days ago

data	maybe last update	2 days ago
docs	updated docs	2 days ago
documentation	updated ip	2 days ago
documentation_template_for_your_next_project	updated css	
solution_explained	Documentation is ready	
src	Documentation is ready	
.gitignore	Documentation is ready	
HelpYourColleaguesHelpThemselves_aSphinxTutorial.pdf	maybe last update	
LICENSE	Initial commit	
README.md	updated readme	
run_euler_185_solver.py	Documentation is ready	

Now let's see how it would work if I was to give my friend a link to the repository on GitHub -

Part I - Overview

38 commits 1 branch 0 releases 1 contributor MIT

Branch: master Sphinx185 / run_euler_185_solver.py Find file Copy path

Branch: master DalyaG Documentation is ready 10ae6b1 8 days ago

DalyaG 1 contributor

data 36 lines (22 sloc) | 1.02 KB Raw Blame History

```
1 from optparse import OptionParser
2
3 from src.ilp_manager import ILPManager
4 from src.input_parser import input_parser
5
6
7 def main():
8     """
9     """
10    Run this code to get the solution to 185th problem in Project Euler.
11
12    Terminal options:
13
14    .. option:: -m <sequence_length>, --sequence_length <sequence_length>
15
16        Length of sequence in the riddle. Assume file 'data/input_m.txt' exists.
17
18        """
19
```

The screenshot shows a GitHub repository page for a project named "Sphinx185". The repository has 38 commits, 1 branch (master), 0 releases, and 1 contributor (DalyaG). The README file contains Python code to run Euler problem 185. A callout bubble highlights the need to browse files and look inside every file.

This friend would need to browse the files, look inside every file,

Part I - Overview

38 commits 1 branch 0 releases 1 contributor MIT

Branch: master Sphinx185 / run_euler_185_solver.py

DalyaG Documentation is ready 10ae6b1 8 days ago

1 contributor

data (22) 36 lines

docs

documenter

solution_

src

.gitignore

HelpYour

LICENSE

README

run_euler_185_solver.py

```
86 lines (67 sloc) | 3.95 KB
```

Raw Blame History

```
1 import pulp
2 from itertools import product
3
4 from naming_utils import s_star_index_node, index_color_node
5
6
7 class ILPManager(object):
8     """Model the 185th problem in Project Euler as an ILP (Integer Linear Program)"""
9     def __init__(self, m):
10         """To instantiate this module, please specify the length on sequences."""
11         self.m = m
12         self.n_digits = 10
13         self.optimal_status = 'Optimal'
14         self.active_edge = 1.0
15
16     def build_ilp_solver(self, sequences_list, n_correct_vertices_list):
17         """
18
19             Given input sequences, and number or correct vertices in each of them,
20             build an ILP representation of the problem.
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86
```

Read every docstring, and hopefully understand what is hapening here.
But that's so 90s right?!

Part I - Overview

Sphinx185 documentation >



Sphinx185

- Euler's 185th Riddle
- Solver Runner
- Input Parser
- Naming Utils
- The ILP Manager class
- The main configurations file: conf.py

Quick search

Go

Welcome to Sphinx185's documentation!

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The goal of this piece is to help make [Sphinx](#) accessible and easy to use.

Feel as free as you can to copy, paste and change anything you see here.

The source code is available [here](#).

Hope you find this useful!

@DalyaG

OK Let's get to business:

- [Euler's 185th Riddle](#)
- [Solver Runner](#)
- [Input Parser](#)
- [Naming Utils](#)
- [The ILP Manager class](#)
- [The main configurations file: conf.py](#)
- [Index](#)

So what I am going to show you today is how to make a website that hosts the documentation to your project

dalyag.github.io/Sphinx185

Part I - Overview

Sphinx185 documentation >



Sphinx185

- Euler's 185th Riddle
- Solver Runner
- Input Parser
- Naming Utils
- The ILP Manager
- The main config file: conf.py

Quick search

Solver Runner

`run_euler_185_solver.main()` [\[SOURCE\]](#)

Run this code to get the solution to 185th problem in Project Euler.

Terminal options:

`-m <sequence_length>, --sequence_length <sequence_length>`

Length of sequence in the riddle. Assume file ‘data/input_m.txt’ exists.

And present your docstring nicely in a readable way

Part I - Overview

Sphinx185 documentation >



Sphinx185

- Euler's 185th Riddle
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Quick search

Solver Runner

Class API

run

Run

Term

class `src.ilp_manager.ILPManager(m)` [\[SOURCE\]](#)

Model the 185th problem in Project Euler as an ILP (Integer Linear Program)

To instantiate this module, please specify the length on sequences.

build_ilp_solver(sequences_list, n_correct_vertices_list) [\[SOURCE\]](#)

Given input sequences, and number or correct vertices in each of them, build an ILP representation.

Parameters:

- **sequences_list** – List of sequences, each of length self.m, of integers between 0 and 9.
- **n_correct_vertices_list** – Number of correct vertices in each sequence, equal to the color of the corresponding vertex in the solution s_star.

Returns:

tuple, containing:

- **ilp_solver**: Pulp instance, holding all the information needed for the solution.
- **s_star_to_color_edges**: The edges (variables) in the ilp_solver.

That is easy to follow
and understand

Part I - Overview

Euler's 185th Riddle

In case you are interested, the riddle goes something like this:

Let s^* be a sequence of m **unknown** digits (colors from 0 to 9).

We are given n sequences of m **known** colors, $x_{i,j}$ marks the color of the j^{th} index in sequence i .

For each sequence we are given the number of **correct colors**, that is, indices in the sequence for which $x_{i,j} = s_j^*$.

Our goal is to discover the colors of s^* , which we are promised are unique, given the input.

So what does this sphinx give you?

First, i can use latex! Anything that lets me use latex is immediately my friend

Part I - Overview

Euler's 185th Riddle

In case you are interested, the riddle goes something like this:

Let s^* be a sequence of m **unknown** digits (colors from 0 to 9).

We are given n sequences of m **known** colors, $x_{i,j}$ marks the i -th

For each sequence we are given the number of **correct colors**, t_i .

Our goal is to discover the colors of s^* , which we are promised a

Solver Runner

[run_euler_185_solver.main\(\)](#) [\[SOURCE\]](#)

Run this code to get the solution to 185th problem in Project Euler

Terminal options:

`-m <sequence_length>, --sequence_`

Length of sequence in the riddle. As

Second - it lets me take the docstring of my functions, and automatically make it into an organized and designed output.

Part I - Overview

Euler's 185th Riddle

Solver Runner

Source code for run_euler_185_solver

In case you are interested

Let s^* be a sequence

We are given

For each sequence

Our goal is to

```
from optparse import OptionParser
from src.ilp_manager import ILPManager
from src.input_parser import input_parser

[docs]def main():
    """
    Run this code to get the solution to 185th problem in Project Euler.

    Terminal options:
    .. option:: -m <sequence_length>, --sequence_length <sequence_length>
        Length of sequence in the riddle. Assume file 'data/input_m.txt' exists.

    ...
    parser = OptionParser()
    parser.add_option("-m", "--sequence_length",
                      help="Length of sequence in the riddle. Assume file 'data/input_m.txt' exists.")
    options, _ = parser.parse_args()

    m = int(options.sequence_length)
    sequences_list, n_correct_vertices_list = input_parser(m)

    ilp_manager = ILPManager(m)
    ilp_solver, s_star_to_color_edges = ilp_manager.build_ilp_solver(sequences_list, n_correct_vertices_list)
    s_star = ilp_manager.solve_ilp(ilp_solver, s_star_to_color_edges)

    print "Solution is: {}".format('.join([str(i) for i in s_star]))

if __name__ == '__main__':
    main()
```

[solver.main\(\) \[SOURCE\]](#)

get the solution to 185th problem in Project Euler

It lets me present the source code, if I want, as part of the documentation

Part I - Overview

Euler's 185th Riddle

In case you are interested:

Let s^* be a sequence.
We are given 10 sequences.
For each sequence we know its color.
Our goal is to find s^* .

Source code for run_euler_185_solver

```
from optparse import OptionParser
from src.ilp_manager import ILPManager
from src.input_parser import input_parser

[docs]def main():
    """
    Run this code to get the solution to 185th problem in Project Euler.

    Terminal options:
    .. option:: -m <sequence_length>, --sequence_length <sequence_length>
        Length of sequence in the riddle. Assume file 'data/input_m.txt' exists.

    parser = OptionParser()
    parser.add_option("-m", "--sequence_length",
                      help="Length of sequence in the riddle. Assume file 'data/input_m.txt' exists")
    options, _ = parser.parse_args()

    m = int(options.sequence_length)
    sequences_list, n_correct_vertices_list = input_parser(m)

    ilp_manager = ILPManager(m)
    ilp_solver, s_star_to_color_edges = ilp_manager.build_ilp_solver(sequences_list,
                                                                     n_correct_vertices_list)
    s_star = ilp_manager.solve_ilp(ilp_solver, s_star_to_color_edges)

    print "Solution is: {}".format(''.join([str(i) for i in s_star]))

if __name__ == '__main__':
    main()
```

Solver Runner

src.ilp_manager.ILPManager(m) [source]

Model the 185th problem in Project Euler as an ILP (Integer Linear Program)

To instantiate this module, please specify the length on sequences.

build_ilp_solver(sequences_list, n_correct_vertices_list) [source]

Given input sequences, and number or correct vertices in each of them, build an ILP representation of the problem

Parameters:

- **sequences_list** – List of sequences, each of length m .
- **n_correct_vertices_list** – Number of correct vertices in each sequence, equal to the color of the corresponding vertex in the graph.

Returns:

tuple, containing:

- **ilp_solver**: Pulp instance, holding all the information about the ILP.
- **s_star_to_color_edges**: The edges (variables) in the graph.

solve_ilp(ilp_solver, s_star_to_color_edges) [source]

Given a solver with the needed information, solve the ILP and extract the solution.

Parameters:

- **ilp_solver** – Pulp instance, holding all the information about the ILP.
- **s_star_to_color_edges** – The edges (variables) in the graph.

Returns:

s_star: List of integers that is the solution to problem 185.

It allows me to take long complex modules and with one line turn them into a clear and structured API

Part I - Overview

Euler's 185th Riddle

In case you are interested

Let s^* be a sequence
We are given n
For each sequence s
Our goal is to determine if s is a solution.

Source code for run_euler_185_solver

```
from optparse import OptionParser
from src.ilp_manager import ILPManager
from src.input_parser import input_parser
[docs]def main():
    """
    Run this code in terminal or
    ... option:
        Length
    """
    parser = OptionParser()
    parser.add_option(
        options,
        m = int(options['m'])
    )
    sequences = []
    ilp_manager = ILPManager()
    ilp_solver = ilp_manager.get_ilp_solver()
    s_star = ilp_solver.solve(sequences)
    print "Solution found: %s" % s_star
    if __name__ == "__main__":
        main()
```

Solver Runner

[class src.ilp_manager.ILPManager\(m\) \[SOURCE\]](https://dalyag.github.io/Sphinx185/index.html)

Secure <https://dalyag.github.io/Sphinx185/index.html>



Sphinx185

- Euler's 185th Riddle
- Solver Runner
- Input Parser
- Naming Utils
- The ILP Manager class
- The main configurations file: config.py
- How To Use This for YOUR Next Project :)

Welcome to Sphinx185's documentation!

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To use this for YOUR next project, browse this documentation and follow the instructions.

Feel as free as you can to copy, paste and change anything you see here.

The source code is available [here](#).

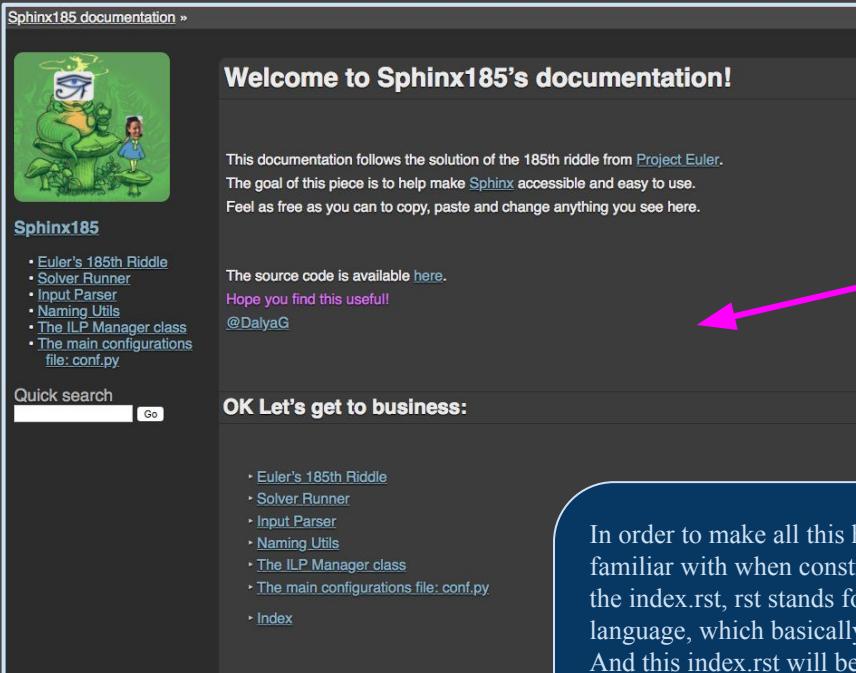
Hope you find this useful!

DalyaG

And finally, it's really easy to make a website out of this. Because that's what people do, right? If someone wants to publish a package they made, and they want other people to know how to use it, so you make a website for your `read-the-docs`. So we'll also gonna learn how to do this today - how to host our beautiful documentation on `github pages`.

Part I - Overview

Sphinx185 documentation >



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The source code is available [here](#).
Hope you find this useful!
@DalyaG

OK Let's get to business:

- [Euler's 185th Riddle](#)
- [Solver Runner](#)
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- [The ILP Manager class](#)
- [The main configurations file: conf.py](#)
- [Index](#)

index.rst -
the content
of the home
page

In order to make all this happen, there are two main files I need to be familiar with when constructing a documentation with sphinx - one is the index.rst, rst stands for ReStructuredText, which is a markdown language, which basically means its text with some cool features. And this index.rst will become the homepage of your documentation - index.html
And also every page in your documentation is a something.rst file that you write, and is then transformed into something.html in the documentation.

Part I - Overview

conf.py -
settings for
the entire
project

Sphinx185 documentation >

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The source code is available [here](#).
Hope you find this useful!
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- [Naming Utils](#)
- [The ILP Manager class](#)
- [The main configurations file: conf.py](#)
- [Index](#)

The second file you need to know is conf.py, which holds the configurations and settings for the entire project. This file could be quite cryptic, so i made some editing that i hope made it more easy to use, and if you go to the repository of this project you could find slides that explain this file line-by-line.

Part II - Main configuration file - conf.py

And now for the dreadful conf.py

Part II - Main configuration file - conf.py

```
"""
This is the main file in which the configuration for the documentation is made.

"""

# -*- coding: utf-8 -*-

# Sphinx185 documentation build configuration file, created by
# sphinx-quickstart on Sat May 12 19:34:31 2018.

# DalyaG: This file was heavily modified from its original build.
# Hope you find this useful :)

# -- Define here your working directory --

import os
import sys
sys.path.append(os.path.abspath('/Users/dalya/Documents/Sphinx185'))

# -- Some general info about the project --

project = u'Sphinx185'
copyright = u'2018, DalyaG'
author = u'dalyaG'

# -- A few basic configurations --

# The documentation in this project will be mostly generated from .rst files
# In this project, every auto-documented module/class has its own .rst file, under the main documentation dir,
# which is rendered into an .html page.
# Get more information here: http://www.sphinx-doc.org/en/master/usage/restructuredtext/basics.html
source_suffix = ['.rst']

# This is the name of the main page of the project.
# It means that you need to have an `index.rst` file where you will design the landing page of your project.
# It will be rendered into an .html page that you can find at: `build/html/index.html`
# (this is a standard name. change it only if you know what you are doing)
master_doc = 'index'

# List of patterns, relative to source directory, that match files and
# directories to ignore when looking for source files.
# This patterns also effect to html_static_path and html_extra_path
exclude_patterns = ['_build']

# List here any paths that contain templates, relative to this directory.
# You can find some not-so-intuitive information here: http://www.sphinx-doc.org/en/master/template.html
# But the best way to learn is by example, right? :)
# So, for example, in this project, I wanted to change the title of the Table Of Contents in the sidebar.
# So I copied '<Sphinx install dir>/themes/basic/globaltoc.html' into the '_templates' folder,
# and replaced 'Table of Content' with 'Sphinx185'.
templates_path = ['_templates']
```

```
# -- Define and configure non-default extensions ----

# You can find a list of available extension here: http://www.sphinx-doc.org/en/master/extensions.html
extensions = ['sphinx.ext.todo', 'sphinx.ext.viewcode', 'sphinx.ext.autodoc', 'sphinx.ext.imgmath']

# Above extensions explanation and configurations:

# todo: When you use the syntax ``:todo::`` some todo command" in your doctstring,
# it will appear in a highlighted box in the documentation
# In order for this extension to work, make sure you include the following:
todo_include_todos = True

# viewcode: Next to each function/module in the documentation, you will have an internal link to the source code.
# The source code will have colors defined by the Pygments (syntax highlighting) style.
# You can checkout the available pygments here: https://help.farbox.com/pygments.html
pygments_style = 'native'

# autodoc: The best thing about Sphinx INHO is autodoc.
# It can automatically generate documentation for the docstrings in your code.
# Get more info here: http://www.sphinx-doc.org/en/master/ext/autodoc.html
# Some useful configurations:
autoclass_content = 'both' # Include both the class's and the init's docstrings.
autodoc_member_order = 'bysource' # In the documentation, keep the same order of members as in the code.
autodoc_default_flags = ['members'] # Default: include the docstrings of all the class/module members.

# imgmath: Sphinx allows use of LaTeX in the html documentation, but not directly. It is first rendered to an image.
# You can add here whatever preamble you are used to add to your LaTeX document.
imgmath_latex_preamble = r'''
\usepackage{color}
\defn{\textcolor{brown}{offwhite}}{(230,238,238)}
\everypar{\color{offwhite}}
\everydisplay{\color{offwhite}}
...
'''

# -- Options for HTML output --
# The theme to use for HTML and HTML Help pages
# You can find available themes here: http://
# In this project, I wanted to use a non-default theme, so I chose 'epiphany'.
# Some adjustments I made to graphite:
# - I did not use the pygment configurations
# - In the static folder, I configured so you can download the original and
#   static files.
# When using a non-built-in theme, define the
html_theme = 'epiphany'

# Add any paths that contain custom static files
# relative to this directory. They are copied
# as sub-folders named 'default.css' will overwrite
html_static_path = ['_static']

# Defining the static path allows me to add
# (make sure the theme of your choice supports it)
html_logo = '_static/epiphany_and_dalya.png'

# Custom sidebar templates, must be a dictionary
# In this project I chose to include in the
# - Table of Contents: I chose globaltoc and
#   configured the title by editing the
#   tocclass box. It appears below the ToC, and
#   globaltoc.html
#   searchbox.html
html_sidebars = {
    '**': [
        'globaltoc.html',
        'searchbox.html'
    ]
}
```

At first when i planned this talk i thought i would go over all this file with you, since there are several non-trivial stuff here, but it was soooo exhausting,

Part

DONT LET CONF.PY EAT YOU UP, KID

nf.py

```
"""
This is the main file in which t
"""

# -*- coding: utf-8 -*-
#
# Sphinx185 documentation build
# sphinx-quickstart on Sat May 1
#
# DalyaG: This file was heavily
# Hope you find this useful :)

# -- Define here your working di

import os
import sys
sys.path.append(os.path.abspath('

# -- Some general info about th
project = u'Sphinx185'
copyright = u'2018, DalyaG'
author = u'dalyaG'

# -- A few basic configurations
# The documentation in this proj
# In This project, every auto-do
# which is rendered into an .ht
# Get more information here: ht
source_suffix = ['.rst']

# This is the name of the main p
# It means that you need to have
# It will be rendered into an .ht
# (this is a standard name. chan
master_doc = 'index'

# List of patterns, relative to
# directories to ignore when loo
# This patterns also effect to h
exclude_patterns = ['_build']

# List here any paths that conta
# You can find some not-so-intui
# But the best way to learn is b
# So, for example, in this proje
# So I copied `<Sphinx install
# and replaced `Table of Co
templates_path = ['_templates']
```

GO ON, YOU CAN DO IT!

```
er/extensions.html
x.ext.mathjax'

ernal link to the source code,
ating) style.
gments.html

gs in your code.

mbers as in the code.
ass/module members.

t is first rendered to an image.
```

even with this
cute panda to
cheer us up

Part II - Main configuration file - conf.py

```
"""
This is the main file in which the configuration for the documentation is made.
```

```
"""
# -*- coding: utf-8 -*-
#
# Sphinx185 documentation build
# sphinx-quickstart on Sat May
#
# DalyaG: This file was heavil
# Hope you find this useful :)
```

```
# -- Define here your working
import os
import sys
sys.path.append(os.path.abspath('.'))

```

```
# -- Some general info about
project = u'Sphinx185'
copyright = u'2018, DalyaG'
author = u'dalyaG'
```

```
# -- A few basic configuration
# The documentation in this pr
# In This project, every auto-
# which is rendered into an
# Get more information here: h
source_suffix = ['.rst']
```

```
# This is the name of the main
# It means that you need to ha
# It will be rendered into an
# (this is a standard name. ch
master_doc = 'index'
```

```
# List of patterns, relative to .
# directories to ignore when looki
# This patterns also effect to html
exclude_patterns = ['_build']
```

```
# List here any paths that contain templates, relative to this directory.
# You can find some not-so-intuitive information here: http://www.sphinx-doc.org/en/master/template.html
# But the best way to learn is by example, right? :)
# So, for example, in this project, I wanted to change the title of the Table Of Contents in the sidebar.
# So I copied '<Sphinx install dir>/themes/basic/globaltoc.html' into the '_templates' folder,
# and replaced 'Table of Content' with 'Sphinx185'.
templates_path = ['_templates']
```

```
"""
# -- Define and configure non-default extensions -----
# You can find a list of available extension here: http://www.sphinx-doc.org/en/master/extensions.html
extensions = ['sphinx.ext.todo', 'sphinx.ext.viewcode', 'sphinx.ext.autodoc', 'sphinx.ext.imgmath']

# Above extensions explanation and configurations:
```

" in your docstring,
the following:
have an internal link to the source code.
writer highlighting) style.
sphinx.com/pygments.html

The docstrings in your code.
autodoc.html
docstrings.
order of members as in the code.
of all the class/module members.
directly. It is first rendered to an image.
x document.

Full details - EXTRA SLIDE

So i decided to edit almost all of it out, and the full details are under extra slides, and here i just want to talk about one property that is pretty much the essence of Sphinx

```
# Custom sidebar templates, must be a dictio
# In This project I chose to include in the
# - Table of Contents: I chose globaltoc a
# and configured the title by editing the
# Content box appears below the TOC, and
html_sidebars = {
    '**': [
        'globaltoc.html',
        'searchbox.html'
    ]
}
```

Part II - Main configuration file - conf.py

'sphinx.ext.autodoc'

```
#           It will appear in a highlighted box in the documentation.
#           In order for this extension to work, make sure you include the following:
todo_include_todos = True

# viewcode: Next to each function/module in the documentation, you will have an internal link to the source code.
#           The source code will have colors defined by the Pygments (syntax highlighting) style.
#           You can checkout the available pygments here: https://help.farbox.com/pygments.html
pygments_style = 'native'

# autodoc: The best thing about Sphinx IMO is autodoc.
#           It allows you to automatically generate documentation for the docstrings in your code.
#           Get more info here: http://www.sphinx-doc.org/en/master/ext/autodoc.html
# Some useful configurations:
autoclass_content = "both" # Include both the class's and the init's docstrings.
autodoc_member_order = "bysource" # In the documentation, keep the same order of members as in the code.
autodoc_default_flags = ['members'] # Default: include the docstrings of all the class/module members.

# imgmath: Sphinx allows use of LaTeX in the html documentation, but not directly. It is first rendered to an image.
# You can add here whatever preamble you are used to adding to your LaTeX document.
imgmath_latex_preamble = r'''
\usepackage{color}
\def\mathcolor#1#2#3{{#2}\color{#1}{#3}}
\everymath{\color{offwhite}}
\everydisplay{\color{offwhite}}
...
'''

# -- Options for HTML output --
# The theme to use for HTML and HTML Help pages.
# You can find available themes here: http://
# In this project, I wanted to use a non-default theme: sphinx_rtd_theme
# Some adjustments I made to graphite:
# - I did not use the pygment configurations
# - In the static folder, I configured several themes. You can see the original and
#   when using a non-built-in theme, define the
html_theme = '_graphite'
# When using a non-built-in theme, define the
html_theme_path = ['..']

# Add any paths that contain custom static files
# relative to this directory. They are copied
# as sub-directories under the main static
# path. "default.css" will overwrite
# any existing "default.css" in this directory.
html_static_path = ['_static']

# Defining the static path allows me to add
# (make sure the theme of your choice supports it)
html_logo = '_static/sphinx_and_daiya.png'

# Custom sidebar templates, must be a dictionary.
# In This project I chose to include in the
# - Table of Contents: I chose globaltoc as
#   and configured the title by editing the
#   tocbox. The tocbox appears below the ToC, and
#   html_sidebars = {
#     '**': [
#       'globaltoc.html',
#       'searchbox.html'
#     ]
#   }
```

The autodoc extension -
This thing is the magic behind
sphinx,

Part II - Main configuration file - conf.py

'sphinx.ext.autodoc'

.. autoclass:: src.ilp_manager.ILPManager

```
#           it will appear in a highlighted box in the documentation.
#           In order for this extension to work, make sure you include the following:
todo_include_todos = True

# Sphinx is autodoc.
# automatically generate documentation for the docstrings in your code.
# module in the documentation, you will have an internal link to the source code.
# use colors defined by the Pygments (syntax highlighting) style.
# available pygments here: https://help.farbox.com/pygments.html

# -- Options for LaTeX output --
# You can add here whatever preamble you are used to adding to your LaTeX document.
imgmath_latex_preamble = r'''
\usepackage{color}
\def\mathcolor#1#2#3{{#2}\color{#1}{#3}}
\newcommand{\textcolor}[2]{\textcolor{#1}{#2}}
\everymath{\color{offwhite}}
\everydisplay{\color{offwhite}}
...
\begin{document}
\begin{equation*}
\mathcolor{blue}{\int_{-\infty}^{\infty} \frac{e^{-x^2}}{1+e^{-x}} dx = \pi/2}
\end{equation*}
\end{document}
'''

# -- Options for HTML output --
# The theme to use for HTML and HTML Help pages
# You can find available themes here: http://
# In this project, I wanted to use a non-def
# https://github.com/epinix/sphinx_and_daiya
# Some adjustments I made to graphite
# - I did not use the pygment configurati
# - In the static folder, I configured se
#   you can download the original and
#   html_theme = 'graphite'
# When using a non-built-in theme, define th
html_theme_path = ['.']

# Add any paths that contain custom static files
# relative to this directory. They are copied
# as sub-files named 'default.css' will overwri
html_static_path = ['_static']

# Defining the static path allows me to add
# (make sure the theme of your choice supp
html_logo = '_static/epinix_and_daiya.png'

# Custom sidebar templates, must be a dictio
# In This project I chose to include in the
# - Table of Contents: I chose globaltoc a
# and configured the title by editing the
# Content box appears below the ToC, and
html_sidebars = {
    '**': [
        'globaltoc.html',
        'searchbox.html'
    ]
}
```

and it lets you, with one simple
line

Part II - Main configuration file - conf.py

```
'sphinx.ext.autodoc'
```

```
.. autoclass:: src.ilp_manager.ILPManager
```



```
class src.ilp_manager.ILPManager(m) [source]
```

Model the 185th problem in Project Euler as an ILP (Integer Linear Program)

To instantiate this module, please specify the length on sequences.

```
build_ilp_solver(sequences_list, n_correct_vertices_list) [source]
```

Given input sequences, and number or correct vertices in each of them, build an ILP representation of the problem.

Parameters:

- `sequences_list` – List of sequences, each of length self.m, of integers between 0 and 9.
- `n_correct_vertices_list` – Number of correct vertices in each sequence in `sequences_list`. A vertex is correct if its color is equal to the color of the corresponding vertex in the solution `s_star`.

Returns:

tuple, containing:

- `ilp_solver`: Pulp instance, holding all the information needed for the solution.
- `s_star_to_color_edges`: The edges (variables) in the `ilp_solver`.

```
solve_ilp(ilp_solver, s_star_to_color_edges) [source]
```

Given a solver with the needed information, solve the ILP and extract the solution to problem 185.

Parameters:

- `ilp_solver` – Pulp instance, holding all the information needed for the solution.
- `s_star_to_color_edges` – The edges (variables) in the `ilp_solver`.

Returns:

`s_star`: List of integers that is the solution to problem 185.

```
# It will appear in a highlighted box in the documentation.
# In order for this extension to work, make sure you include the following:
todo_include_todos = True
```

```
module_in the documentation, you will have an internal link to the source code.
use colors defined by the Pygments (syntax highlighting) style.
available pygments here: https://help.farbox.com/pygments.html
```

```
html_THEME = autodoc,
# automatically generate documentation for the docstrings in your code.
# p://www.sphinx-doc.org/en/master/ext/autodoc.html
```

```
add both the class's and the init's docstrings.
# In the documentation, keep the same order of members as in the code.
# default: include the docstrings of all the class/module members.
```

```
# imgmath: Sphinx allows use of LaTeX in the html documentation, but not directly. It is first rendered to an image.
# You can add here whatever preamble you are used to adding to your LaTeX document.
imgmath_latex_preamble = r"""
\usepackage{color}
\definecolor{offwhite}{rgb}{(230,238,238)}
\everymath{\color{offwhite}}
\everydisplay{\color{offwhite}}
..."""

# -- Options for HTML output --
```

```
# The theme to use for HTML and HTML Help pages.
# You can find available themes here: http://
# In this project I wanted to use a non-default theme.
# https://github.com/rtfd/sphinx-bootstrap-theme
# Some adjustments I made to graphite:
# - I did not use the pygments configuration
# - In the static folder, I configured so you can download the original and
```

```
html_theme = 'graphite'
# When using a non-built-in theme, define the
html_theme_path = ['.']

# Add any paths that contain custom static files
# relative to this directory. They are copied
# as sub-folders named 'default.css' will overwrite
html_static_path = ['_static']
```

```
# Defining the static path allows me to add
# (make sure the theme of your choice supports)
html_logo = '_static/epiphany_and_daiya.png'

# Custom sidebar templates, must be a dictionary
# In This project I chose to include in the
# - Table of Contents: I chose globaltoc and
# configured the title by editing the
# contents box appears below the Toc, and
html_sidebars = {
    '**': [
        'globaltoc.html',
        'searchbox.html'
    ]
}
```

Create a documentation for the entire module

Part II - Main configuration file - conf.py

'sphinx.ext.autodoc'

```
#           It will appear in a highlighted box in the documentation.
#           In order for this extension to work, make sure you include the following:
todo_include_todos = True

# viewcode: Next to each function/module in the documentation, you will have an internal link to the source code.
#           The source code will have colors defined by the Pygments (syntax highlighting) style.
#           You can checkout the available pygments here: https://help.farbox.com/pygments.html
pygments_style = 'native'

# autodoc: The best thing about Sphinx IMO is autodoc.
#           It allows you to automatically generate documentation for the docstrings in your code.
#           Get more info here: http://www.sphinx-doc.org/en/master/ext/autodoc.html
# Some useful configurations:
autoclass_content = 'both' # Include both the class's and the init's docstrings.
autodoc_member_order = 'bysource' # In the documentation, keep the same order of members as in the code.
autodoc_default_flags = ['members'] # Default: include the docstrings of all the class/module members.

# imgmath: Sphinx allows use of LaTeX in the html documentation, but not directly. It is first rendered to an image.
# You can add here whatever preamble you are used to adding to your LaTeX document.
imgmath_latex_preamble = r'''
\usepackage{color}
\def\mathcolor#1#2#3{{#2}\color{#1}{#3}}
\everymath{\color{offwhite}}
\everydisplay{\color{offwhite}}
...
'''

# -- Options for HTML output --
# The theme to use for HTML and Help pages
# You can find available themes here: http://
# In this project, I wanted to use a non-default theme: sphinx_rtd_theme
# Some adjustments I made to graphite:
# - I did not use the pygment configurations
# - In the static folder, I configured so you can download the original and
#   html theme 'graphite'
# When using a non-built-in theme, define the
html_theme_path = ['.']

# Add any paths that contain custom static files
# relative to this directory. They are copied
# as subdirectories named 'default.css' will overwrite
html_static_path = ['_static']

# Defining the static path allows me to add
# (make sure the theme of your choice supports it)
html_logo = '_static/sphinx_and_daiya.png'

# Custom sidebar templates, must be a dictionary
# In This project I chose to include in the
# - Table of Contents: I chose globaltoc and
#   configured the title by editing the
#   tocbox. The tocbox appears below the ToC, and
#   html_sidebars = {
#     '**': [
#       'globaltoc.html',
#       'searchbox.html'
#     ]
# }
```

Full details here:

<http://www.sphinx-doc.org/en/master/ext/autodoc.html>

There a lot of such options, but just
keep this functionality in mind
when we venture into the heart of
this talk -

Part III - Document YOUR next project

Where we will finally start crating
a documentation for YOUR
project

Part III - Document YOUR next project



Before we start, I would like to point out that this part is going to be rather technical.

My goal here is not to dictate actions that you will remember by heart, and go home to apply, but rather give an overview of how this process goes, so that later, if you want to make a documentation for yourself, you could use the project I published on GitHub, and these slides that are available there, to guide you in the process.

Part III - Document YOUR next project

We will follow these instructions:

(found here https://dalyag.github.io/Sphinx185/how_to_use_this_for_your_next_project.html)

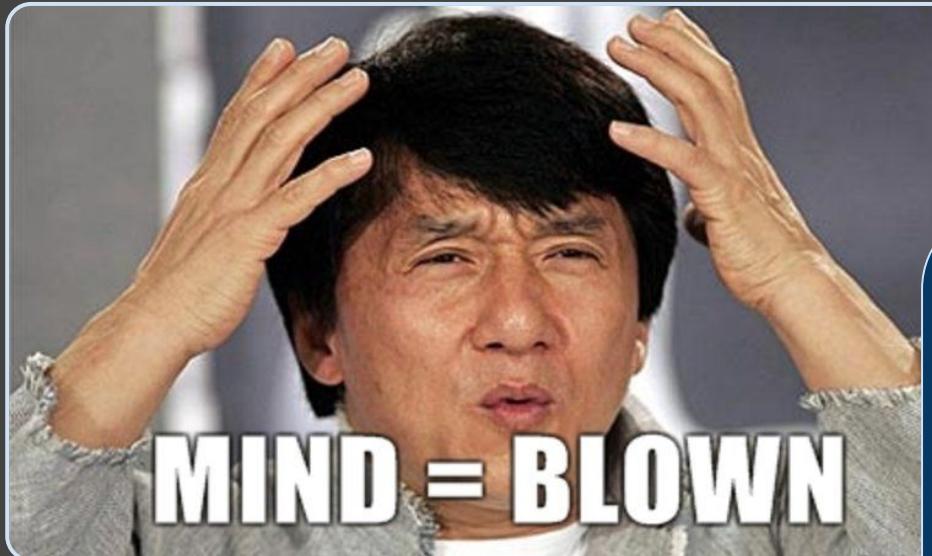
How To Use This for YOUR Next Project :)

1. `pip install sphinx`
2. Copy the `documentation_template_for_your_next_project` folder in this repository, make it a subdirectory in your local project and rename it `documentation`.
3. Edit `conf.py` by searching the pattern `#CHNAGEME#` inside the file and follow the instructions.
4. Edit `index.rst` by following the inline instructions.
5. To add a page to your documentation:
 - a. Create a `.rst` file for the function/module you wish to document (you can use the templates supplied here), and
 - b. Add the name of the `.rst` file to the `toctree` in `index.rst`.
6. In terminal, inside the `documentation` folder, run `make html`.
(TIP OF THE WEEK: actually, always run `make clean html` to clear sphinx cache and build from scratch)
7. To view locally - open the file `documentation/_build/html/index.html` in your browser, and enjoy the read :)
8. To share - you can use [GitHub Pages](#) to host your documentation:
 - a. Copy the content of `documentation/_build/html/` into a new `docs` folder, under the root of the project.
 - b. Create an empty file `.nojekyll` inside `docs` folder (this tells GitHub Pages to bypass the default `jekyll` themes and use the `html` and `css` in your project)
 - c. Push your changes to master branch.
 - d. In your repository on GitHub, go to "Settings" -> "GitHub Pages" -> "Source" and select "master branch /docs folder".
 - e. Share your beautiful documentation site at https://<your_git_usename>.github.io/<project_name>/

In this part we will follow the instructions that you can find in the same place where you can find all the other things in this talk

Part III - Document YOUR next project

1. pip install sphinx



And we will start with
pip-install-sphinx
Did not see this one coming, ha?
;)

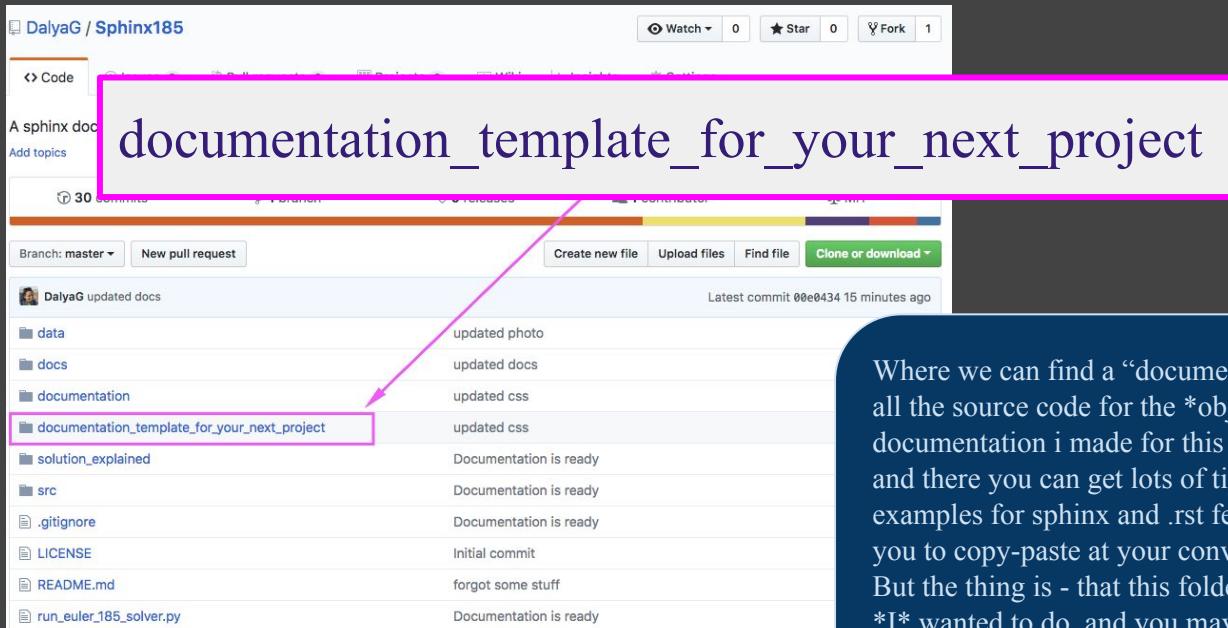
Part III - Document YOUR next project

2. Go to <https://github.com/DalyaG/Sphinx185>

Ok now we can really start, by going to the github of this project

Part III - Document YOUR next project

2. Go to <https://github.com/DalyaG/Sphinx185>



Where we can find a “documentation” folder, that holds all the source code for the *objectively* beautiful documentation i made for this project, and there you can get lots of tips and ideas and usage examples for sphinx and .rst features that i curated for you to copy-paste at your convenience. But the thing is - that this folder is busy with things that *I* wanted to do, and you may not want to use them all, So for this purpose I created a lean and simple version, under

Part III - Document YOUR next project

2. Go to <https://github.com/DalyaG/Sphinx185>

- * Download this folder to your local project:
documentation_template_for_your_next_project
- * Rename it *documentation*

and in my opinion the best way to start with sphinx is by downloading this folder into your local project, and rename it “documentation”, and from now on i am going to assume that this is what you did

Part III - Document YOUR next project

Bravo! You now have a documentation!

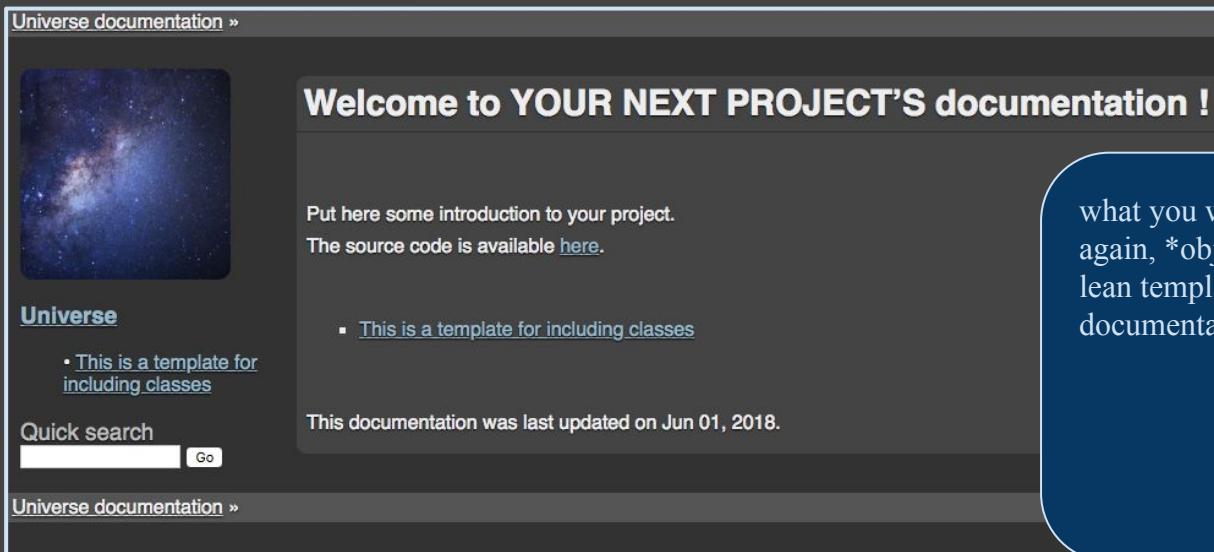
And i promise i didnt make you download some virus or something,

Part III - Document YOUR next project

Bravo! You now have a documentation!

Open this file in your browser to see:

<your_project>/documentation/_build/html/index.html



what you will download is this, again, *objectively* beautiful and lean template to start building your documentation upon.

Part III - Document YOUR next project

3. Edit *conf.py*

So - the first step in the personalization of this template is to edit the dreaded *conf.py*

Part III - Document YOUR next project

3. Edit *conf.py* by searching the pattern **#CHNAGEME#** inside the file and follow the instructions.

```
# --- Some general info about the project
#CHNAGEME# Change this to fit your project
project = u'Universe'
copyright = u'2018, DalyaG'
author = u'DalyaG'
```

I made this process as easy as I could by including a #CHANGEME# pattern with helper notes on what you need to edit

Part III - Document YOUR next project

4. Edit *index.rst*

The next step will be to edit the home page of your project's documentation

Part III - Document YOUR next project

4. Edit *index.rst* by following the inline instructions.

```
Welcome to YOUR NEXT PROJECT'S documentation !  
=====|  
|  
Put here some introduction to your project.  
  
The source code is available `here <https://github.com/username>`_
```

This index.rst that you downloaded also has helper notes inside, and this file you will keep editing as you go along with your documentation, so you can start with a simple introduction, just to get things going.

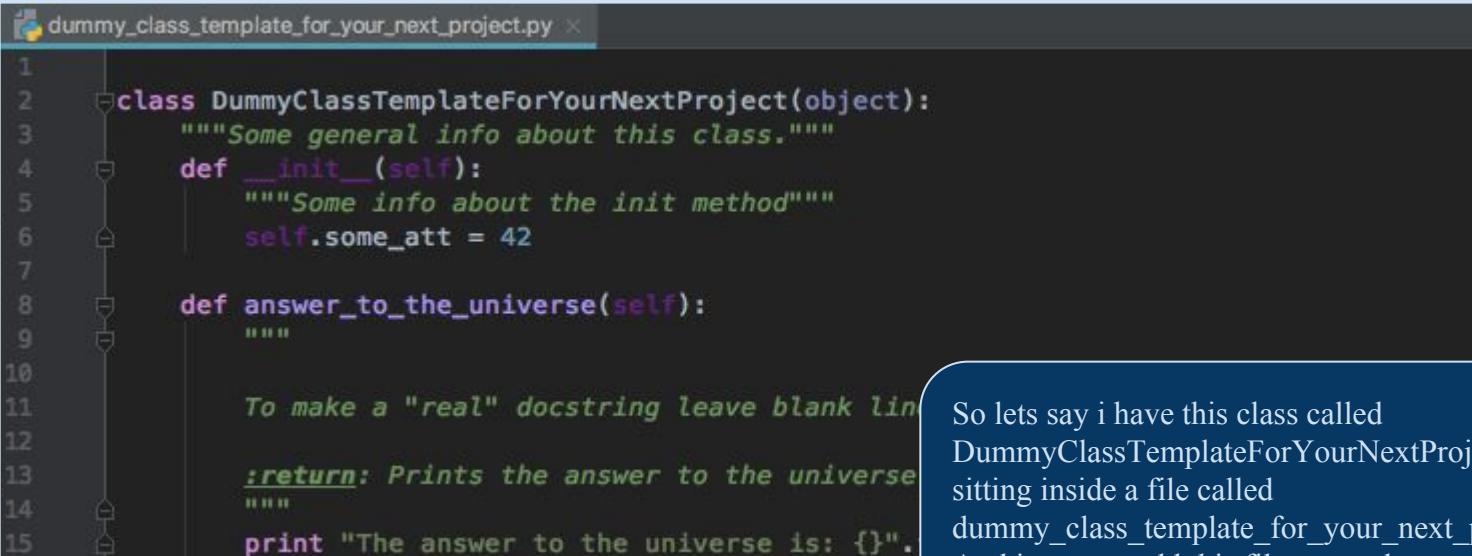
Part III - Document YOUR next project

5. To add a page to your documentation:

Now, if you want to add a page to your documentation -

Part III - Document YOUR next project

5. To add a page to your documentation:

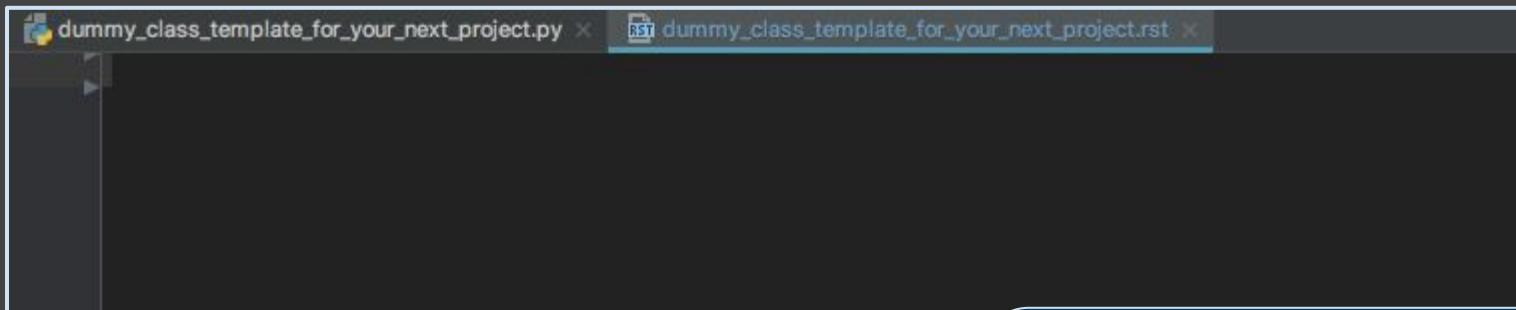


```
1  dummy_class_template_for_your_next_project.py
2
3  class DummyClassTemplateForYourNextProject(object):
4      """Some general info about this class."""
5      def __init__(self):
6          """Some info about the init method"""
7          self.some_att = 42
8
8  def answer_to_the_universe(self):
9      """
10
11      To make a "real" docstring leave blank line
12
13      :return: Prints the answer to the universe
14      """
15      print "The answer to the universe is: {}."
```

So lets say i have this class called DummyClassTemplateForYourNextProject sitting inside a file called dummy_class_template_for_your_next_project.py, And i want to add this file to my documentation

Part III - Document YOUR next project

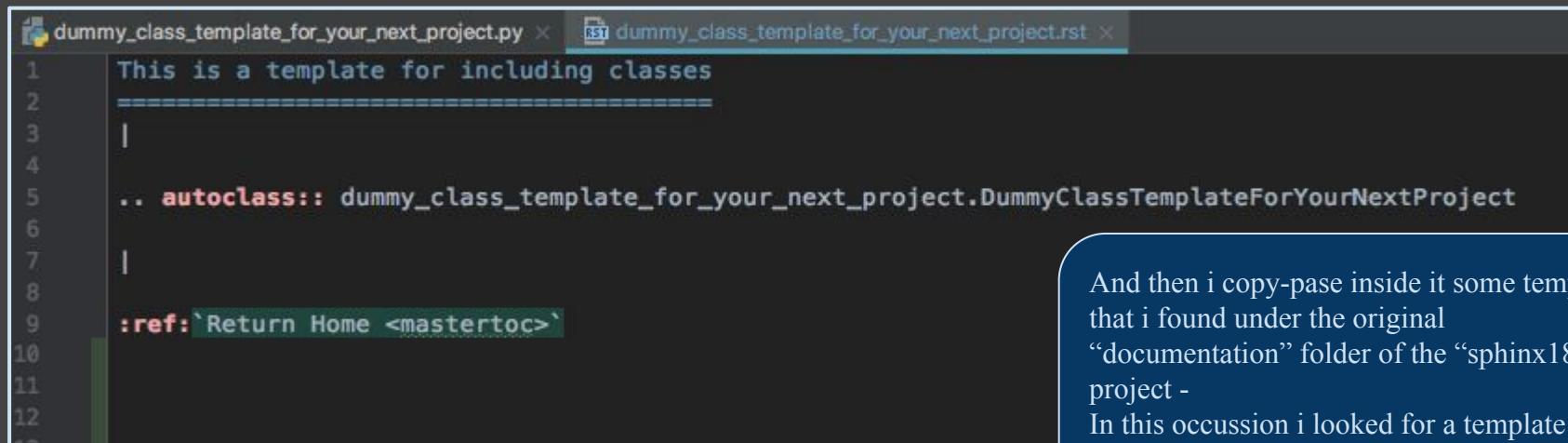
5. To add a page to your documentation: Create a *.rst* file



Then i need to create an empty .rst file, and its easy to follow the backend of this project if I call it by the same name as the source code,
So that is
`dummy_class_template_for_your_next_project.rst`

Part III - Document YOUR next project

5. To add a page to your documentation: Create a *.rst* file and edit is to include your module



The screenshot shows a code editor with two tabs open. The left tab is named "dummy_class_template_for_your_next_project.py" and contains Python code. The right tab is named "dummy_class_template_for_your_next_project.rst" and contains reStructuredText (rst) code.

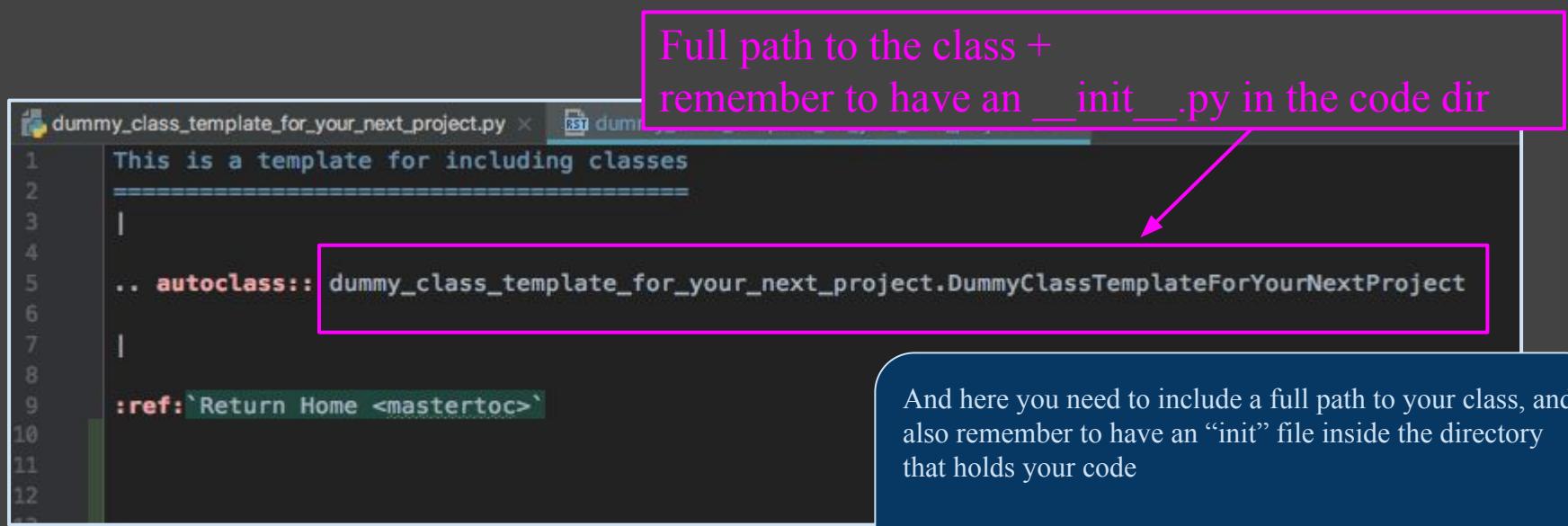
```
This is a template for including classes
=====
|
.. autoclass:: dummy_class_template_for_your_next_project.DummyClassTemplateForYourNextProject
|
:ref:`Return Home <mastertoc>`
```

And then i copy-pase inside it some template that i found under the original “documentation” folder of the “sphinx185” project -
In this occussion i looked for a template for a class documentation and copied this call for “autoclass”

Part III - Document YOUR next project

5. To add a page to your documentation:

Create a *.rst* file and edit it to include your module



```
dummy_class_template_for_your_next_project.py  RST dummy.rst
1 This is a template for including classes
2 =====
3 |
4 ...
5 .. autoclass:: dummy_class_template_for_your_next_project.DummyClassTemplateForYourNextProject
6 |
7 |
8 :ref:`Return Home <mastertoc>`
```

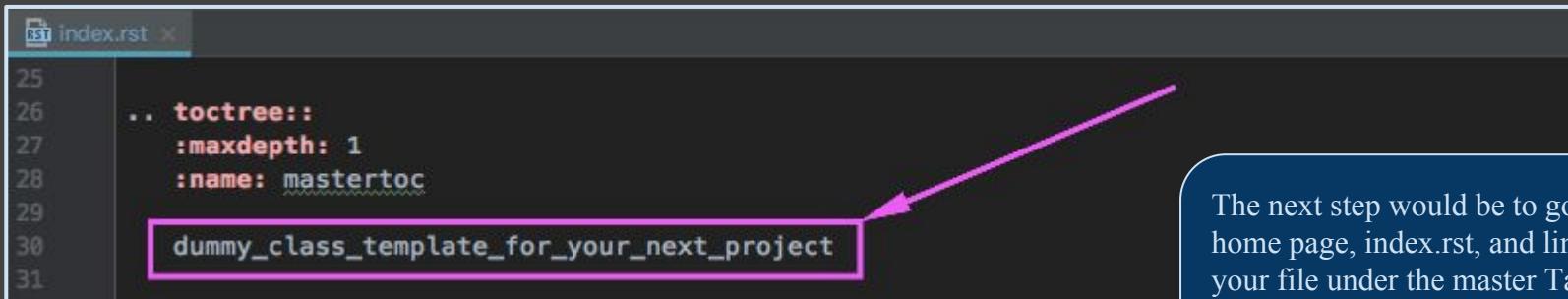
Full path to the class +
remember to have an `__init__.py` in the code dir

And here you need to include a full path to your class, and
also remember to have an “init” file inside the directory
that holds your code

Part III - Document YOUR next project

5. To add a page to your documentation:

Create a `.rst` file and edit it to include your module
And add its name to the *TOC* in `index.rst`



```
RST index.rst x
25
26 .. toctree::
27   :maxdepth: 1
28   :name: mastertoc
29
30   dummy_class_template_for_your_next_project
31
```

The next step would be to go to the home page, `index.rst`, and link to your file under the master Table Of Content

Part III - Document YOUR next project

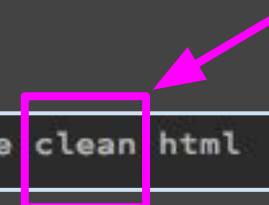
6. In terminal, inside the *documentation* folder,
run *make clean html*:

Now in order to apply these
changes

Part III - Document YOUR next project

6. In terminal, inside the *documentation* folder, run *make clean html*:

```
~/Documents/Sphinx185/documentation (git::master) ] make clean html
```



Run “make clean html”
You can also run just “make html”
but then sphinx holds some cache
of your previous builds, and in
order for this build to catch all the
changes you made, i recommend
always running with “clean”

Part III - Document YOUR next project

6. In terminal, inside the *documentation* folder, run *make clean html*:

```
[ dalya@Dalya-Gartzman-Mackbook ~/Documents/Sphinx185/documentation (git::master) ] make clean html
Removing everything under '_build'...
Running Sphinx v1.6.6
making output directory...
loading pickled environment... not yet created
building [mo]: targets for 0 po files that are out of date
building [html]: targets for 8 source files that are out of date
updating environment: 8 added, 0 changed, 0 removed
reading sources... [100%] run_euler_185_solver
looking for now-outdated files... none found
pickling environment... done
checking consistency... done
preparing documents... done
writing output... [100%] run_euler_185_solver
generating indices... genindex py-modindex
highlighting module code... [100%] src.naming_utils
writing additional pages... search
copying static files... done
copying extra files... done
dumping search index in English (code: en) ... done
dumping object inventory... done
build succeeded.

Build finished. The HTML pages are in _build/html.
[ dalya@Dalya-Gartzman-Mackbook ~/Documents/Sphinx185/documentation (git::master) ]
```

And then hopefully you will see this clean output

Part III - Document YOUR next project

6. In terminal, inside the *documentation* folder, run *make clean html*:

```
[ dalya@Dalya-Gartzman-Mackbook ~/Documents/Sphinx185/documentation (git::master) ] make clean html
Removing everything under '_build'...
Running Sphinx v1.6.6
making output directory...
loading pickled environment... not yet created
building [mo]: targets for 0 po files that are out of date
building [html]: targets for 8 source files that are out of date
updating environment: 8 added, 0 changed, 0 removed
reading sources... [100%] run_euler_185_solver
/Users/dalya/Documents/Sphinx185/documentation/index.rst:9: WARNING: Line block ends without a b
looking for now-outdated files... none found
pickling environment... done
checking consistency... done
preparing documents... done
writing output... [100%] run_euler_185_solver
generating indices... genindex py-modindex
highlighting module code... [100%] src.naming_utils
writing additional pages... search
copying static files... done
copying extra files... done
dumping search index in English (code: en) ... done
dumping object inventory... done
build succeeded, 1 warning.

Build finished. The HTML pages are in _build/html.
[ dalya@Dalya-Gartzman-Mackbook ~/Documents/Sphinx185/documentation (git::master) ]
```

If you do happen to see some warning or errors, they are sometimes rather indicative, and sometimes they also have available solutions online, so just look for the error, and, you know, copy-paste from somewhere the solution

Part III - Document YOUR next project

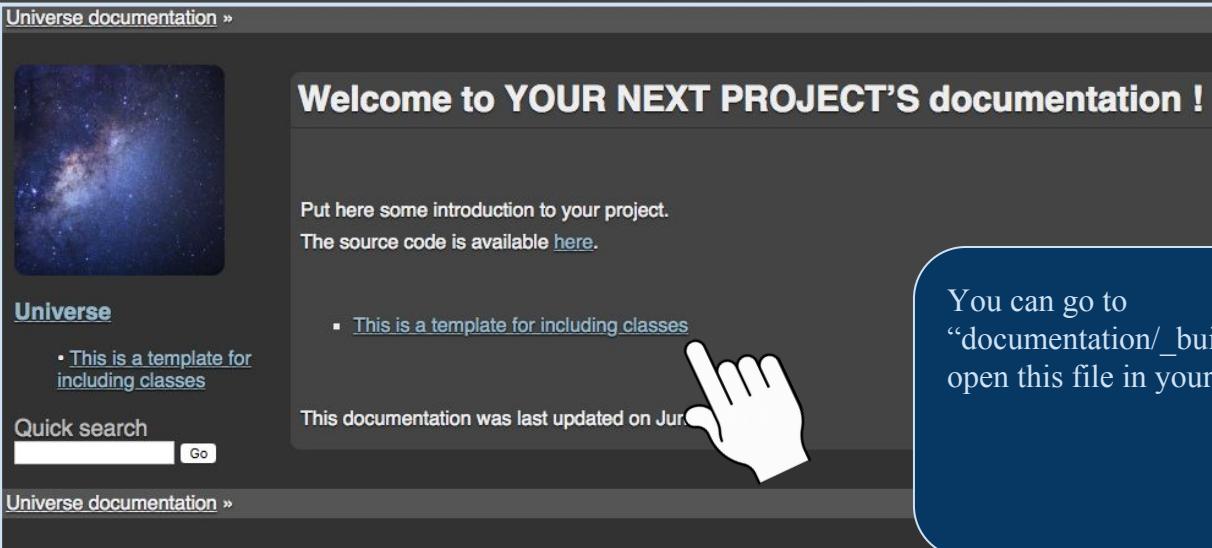
7. To view locally

And thats it, its ready

Part III - Document YOUR next project

7. To view locally, open this file in your browser
documentation/_build/html/index.html

Universe documentation »



Welcome to YOUR NEXT PROJECT'S documentation !

Put here some introduction to your project.
The source code is available [here](#).

- [This is a template for including classes](#)

This documentation was last updated on Jun.

Universe

- This is a template for including classes

Quick search Go

Universe documentation »

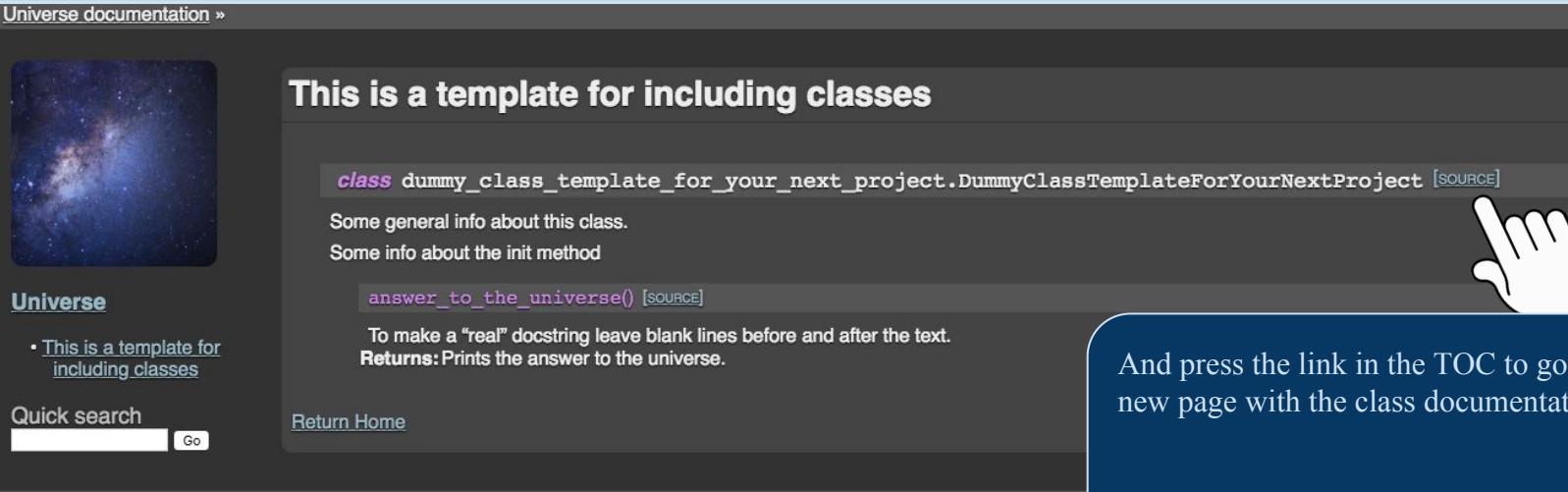


You can go to
“[documentation/_build/html/index.html](#)” and
open this file in your browser,

Part III - Document YOUR next project

7. To view locally, open this file in your browser
documentation/_build/html/index.html

Universe documentation »



This is a template for including classes

`class dummy_class_template_for_your_next_project.DummyClassTemplateForYourNextProject [SOURCE]`

Some general info about this class.
Some info about the init method

`answer_to_the_universe() [SOURCE]`

To make a “real” docstring leave blank lines before and after the text.
Returns: Prints the answer to the universe.

Universe

- This is a template for including classes

Quick search Go

Return Home

Universe documentation »



And press the link in the TOC to go into your new page with the class documentation

Part III - Document YOUR next project

7. To view locally, open this file in your browser
documentation/_build/html/index.html

Universe documentation » Module code »



Source code for dummy_class_template_for_your_next_project

```
[docs]class DummyClassTemplateForYourNextProject(object):
    """Some general info about this class."""
    def __init__(self):
        """Some info about the init method"""
        self.some_att = 42

[docs]    def answer_to_the_universe(self):
        """
        To make a "real" docstring leave blank lines before and after the text.

        :return: Prints the answer to the universe.
        """
        print "The answer to the universe is: {}".format(self.some_att)
```

Universe

- This is a template for including classes

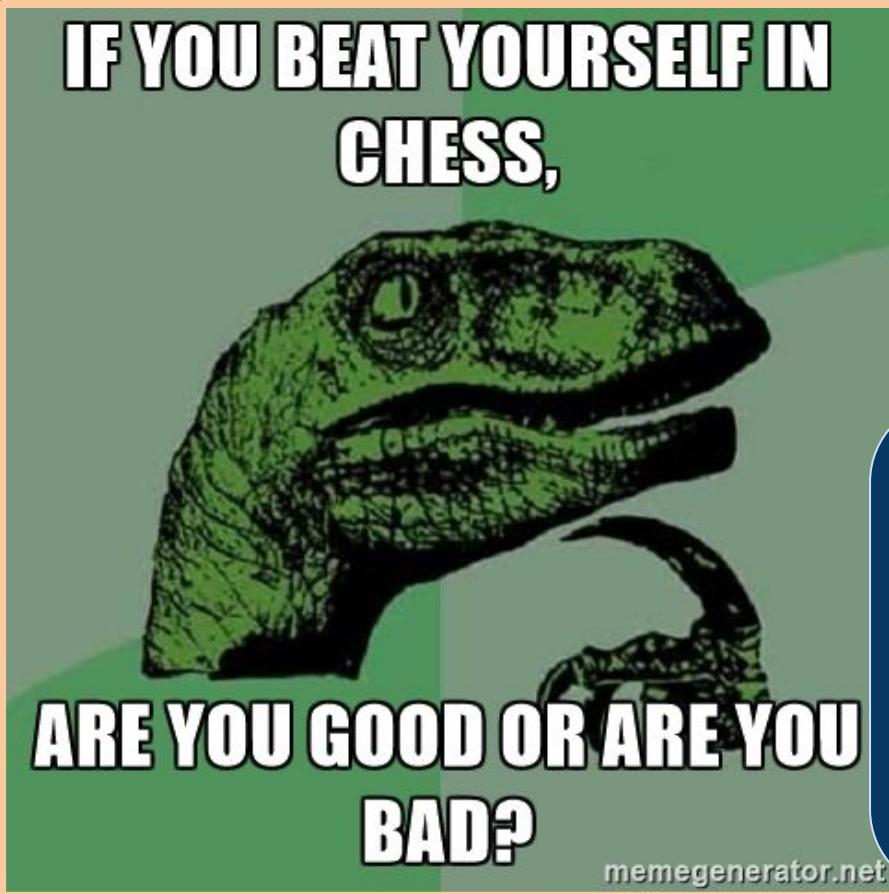
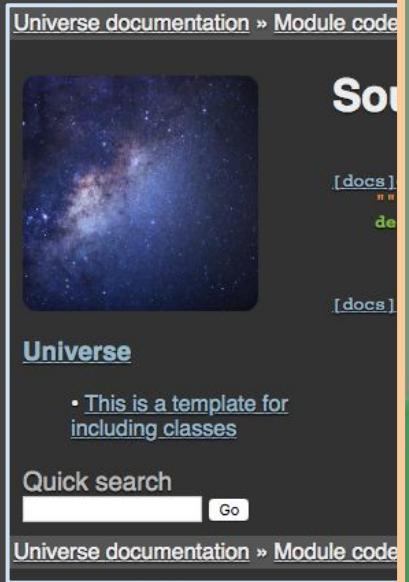
Quick search Go

Universe documentation » Module code »

And even go inside the source code

Part III - Document YOUR next project

7. To view local documentation



browser

your next project

But the thing is, that having your documentation on your own device is nice and all, but we are not here to share the documentation with ourselves, *we* already know what this project does.

Part III - Document YOUR next project

8. SHARE your documentation!



SHARING IS CARING

Our goal is to share this documentation with others!

Part III - Document YOUR next project

8. Hosting on GitHub Pages:



So, last stretch, lets build a website for our documentation, using github pages -

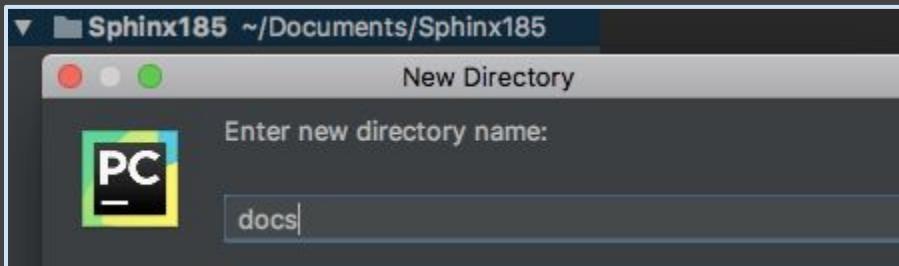
Part III - Document YOUR next project

8. Hosting on GitHub Pages:

Part III - Document YOUR next project

8. Hosting on GitHub Pages:

a. Create a folder *docs* under the root of the project

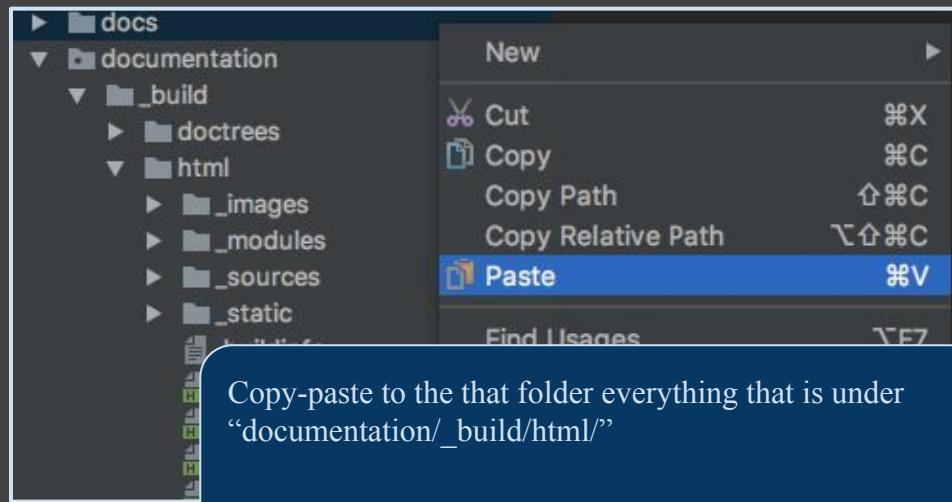
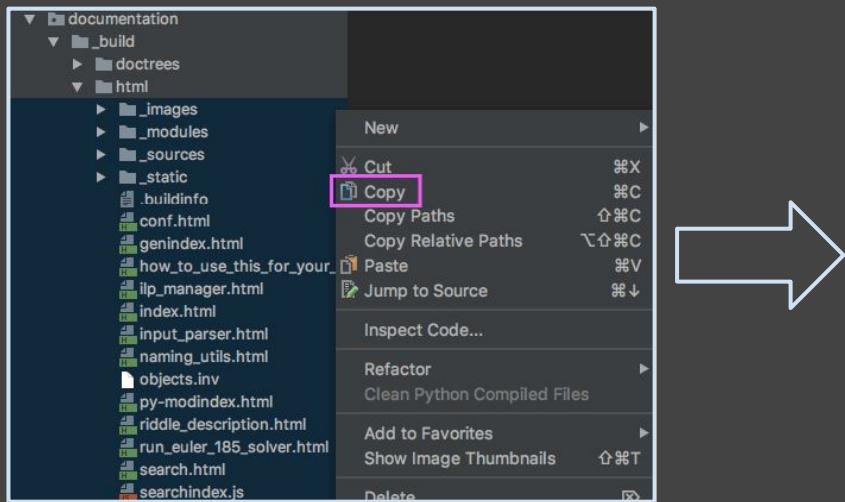


First step - inside you local project, create a directory called "docs"

Part III - Document YOUR next project

8. Hosting on GitHub Pages:

a. And copy inside it the content of
documentation/_build/html/



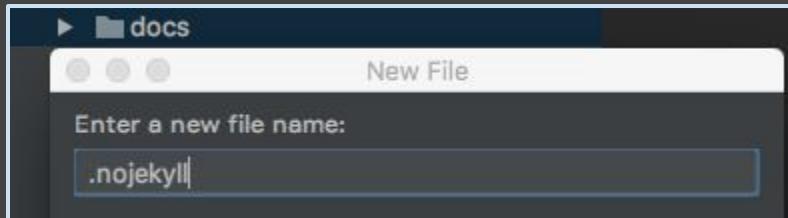
Copy-paste to the that folder everything that is under
“documentation/_build/html/”

Part III - Document YOUR next project

8. Hosting on GitHub Pages:

b. Create an empty file `.nojekyll` inside `docs` folder

(this tells GitHub Pages to bypass the default jekyll themes and use the html and css in your project)



Inside this directory create an empty file called “`.nojekyll`” - this is a sign for github pages to bypass the “`jekyll`” themes, and use the html and css in your project

Part III - Document YOUR next project

8. Hosting on GitHub Pages:

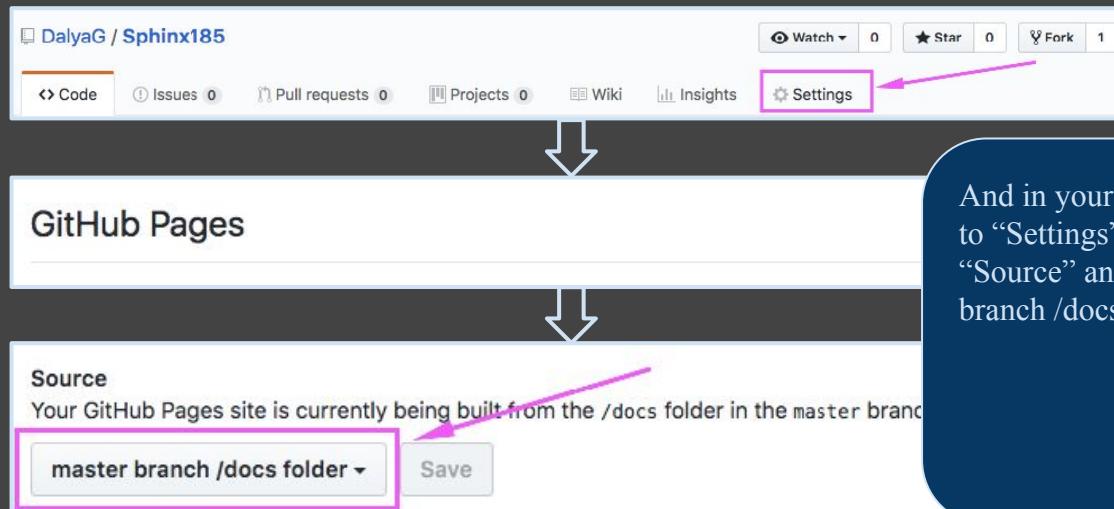
c. Push your changes to master branch.

Now push your changes to your master branch

Part III - Document YOUR next project

8. Hosting on GitHub Pages:

d. In your repository on GitHub, go to “Settings” -> “GitHub Pages” -> “Source”



And in your project on github - go to “Settings” -> “GitHub Pages” -> “Source” and choose “master branch /docs folder”

Part III - Document YOUR next project

8. Hosting on GitHub Pages:

e. Share your beautiful documentation site at

https://<your_git_username>.github.io/<project_name>/

GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a Git

✓ Your site is published at <https://dalyag.github.io/Sphinx185/>

And its ready!

Part III - Document YOUR next project

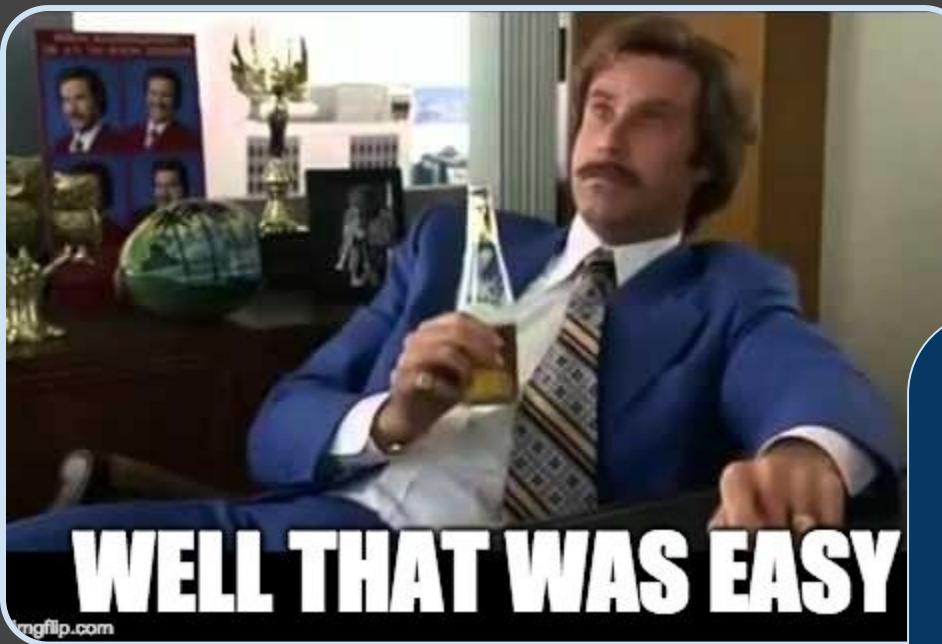
8. Hosting on GitHub Pages.

e. Share
ht

The screenshot shows a GitHub Pages documentation site for a project named "Universe". The main page features a large image of a galaxy on the left and a dark-themed sidebar on the left containing navigation links like "Universe", "GitHub", and "GitHub Pages". The main content area has a header "Welcome to YOUR NEXT PROJECT'S documentation !", a placeholder text "Put here some introduction to your project.", a link "The source code is available [here](#).", and a bullet point "• [This is a template for including classes](#)". At the bottom, it says "This documentation was last updated on Jun 01, 2018."

Now you can share your
objectively beautiful
documentation

Part III - Document YOUR next project



Wasnt so hard right?

Part III - Recap



WHO CAN DO IT?

YOU CAN DO IT!

As I am a true believer in knowledge sharing, I did my best in this tutorial to make this tool accessible and easy to use, so that next time you want to share something, you will have an easy time doing so.

Part IV - Surprise! Live Demo!

```
HANDLEP*** Address 8016a950 has base at 80100000  
.6.2 irq1:if  SYSVER 0xf0000565  
  
Name          Dll Base DateStamp - Name  
ntoskrnl.exe 80010000 33247f80  n1.dll  
atapi.sys    80007000 33248040  SIPORT.  
Disk.sys     801db000 336015c0  ASS2.SY  
Ntfs.sys     80237000 344eeb40  w  
NTice.sys    f1f48000 31ec6c80  1c  
Cdrom.SYS    f228e000 31ec6c90  u  
KSecDD.SYS   f2290000 335e  
win32k.sys   fe0e2000 34  
Cdfs.SYS    fdca2000 33  
fdca35000
```

github.com/DalyaG/Sphinx185

So I am going to take a leap of faith in the universe, and try to do a modest live demo, of browsing the repository i kept talking about -

Take Home Message



If you are working on a collaborative project, like the research repository i mentioned at the begining, or you want to publish an open source tool, the best way to make people use it, is by making it accesible and easy to use. What Sphinx allows you to do is skip all the overhead of managing your documentation system, and simply use the docstrings you have in your code. So i wish you all good luck with your projects, and keep sharing the knowledge :D

Thank you :)

Questions?

DalyaG@gmail.com

