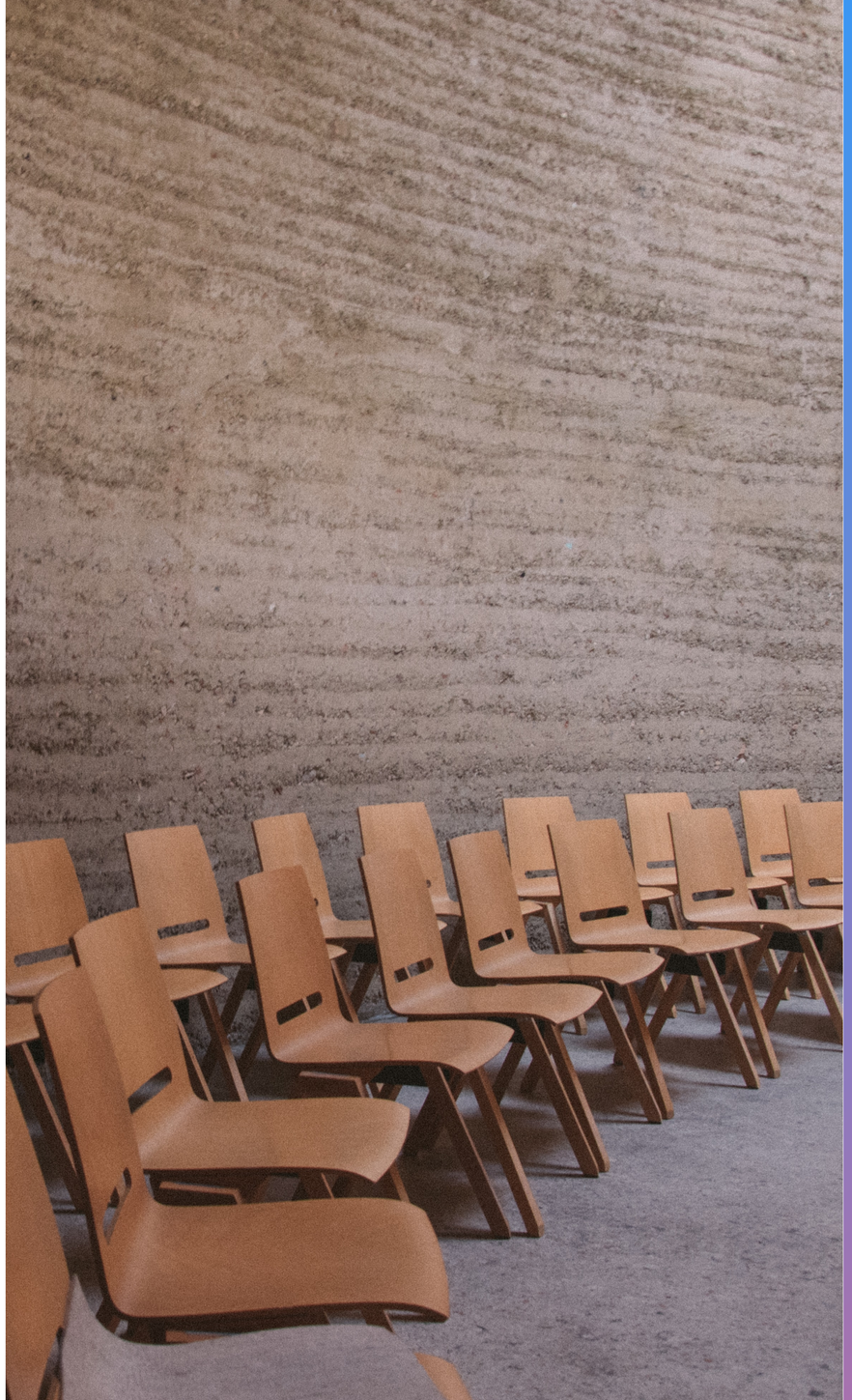
COFFEE & CODE

MAKING BEAUTIFUL DOCS

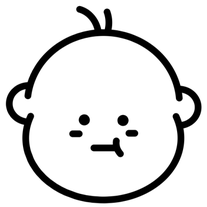
PART ONE

Beautiful docs:
Writing

READ ON →

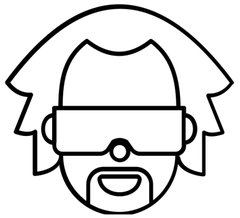


CHOOSE YOUR AUDIENCE



Users

Developers



Future-you

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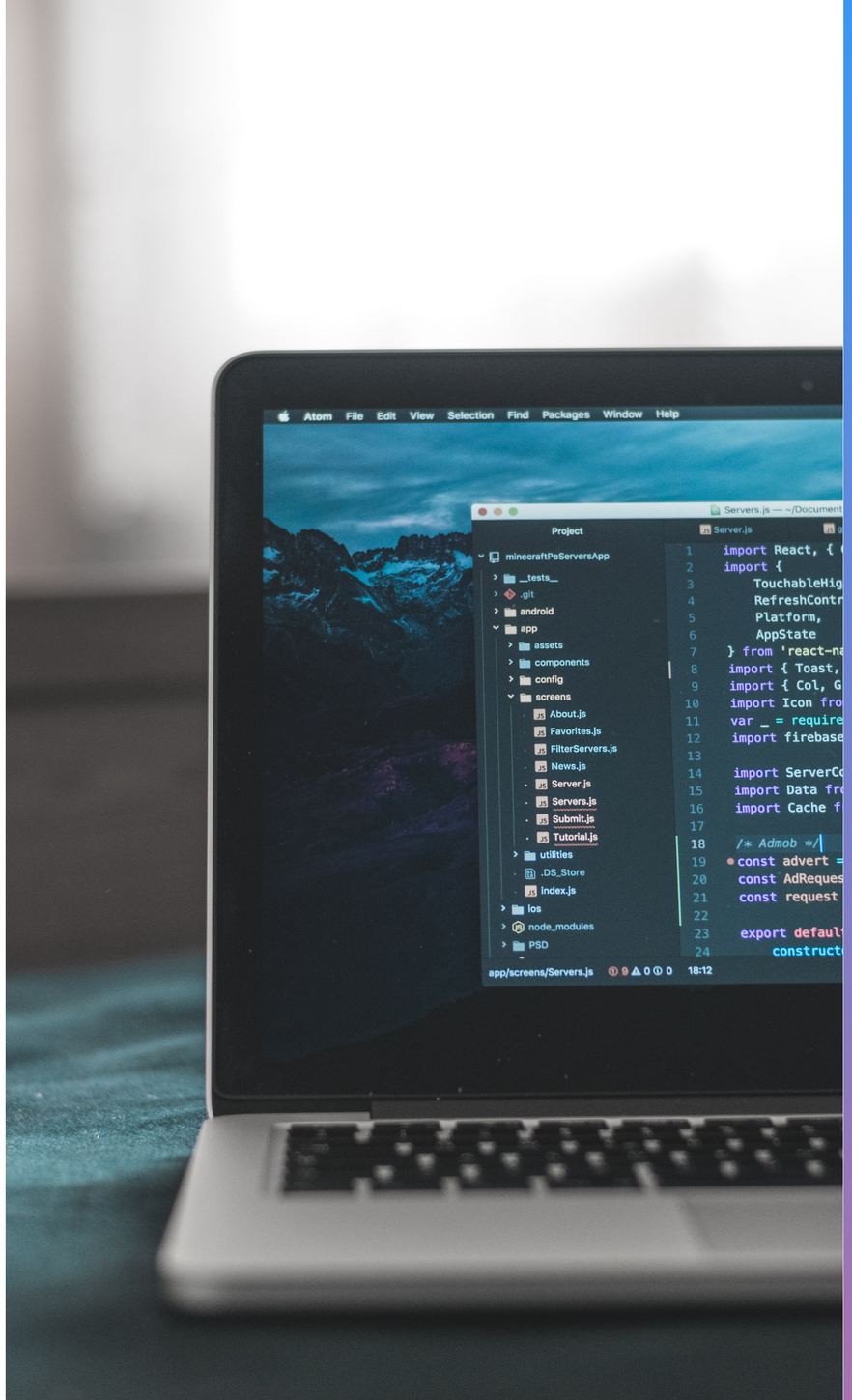


WRITING BEAUTIFUL DOCUMENTATION

CHOOSE YOUR STYLE

Comments

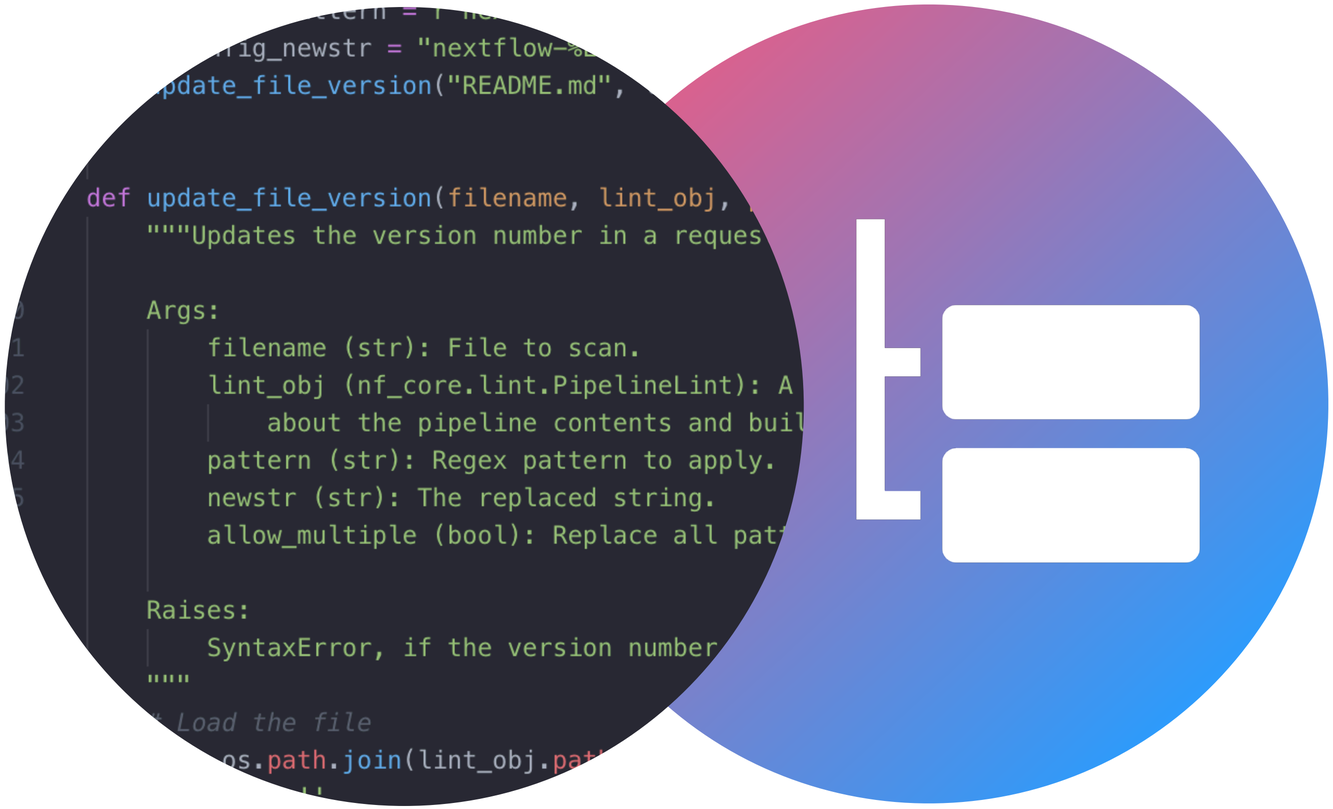
Docstrings

Free text

Docstrings

Great for people using your code

- Often used for documenting APIs
- Write docs as you write code, no context switching
- Great if people need to use your code
- Not very coherent by itself



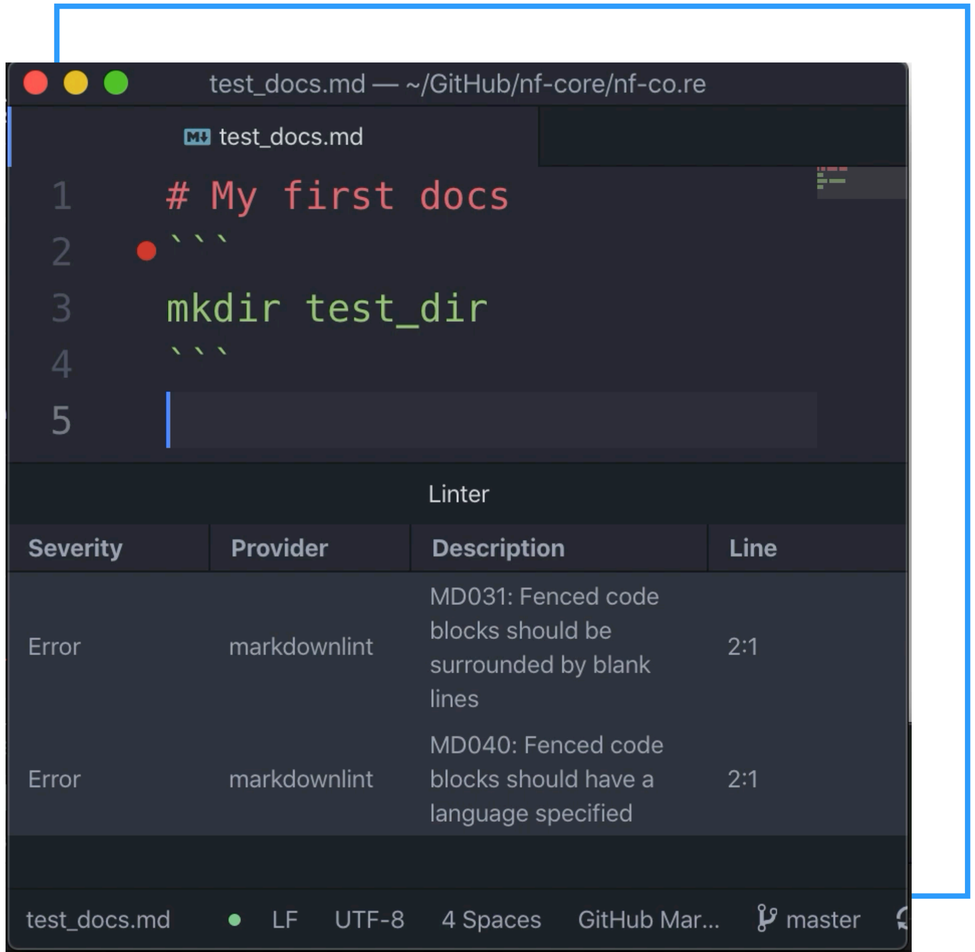
Free text

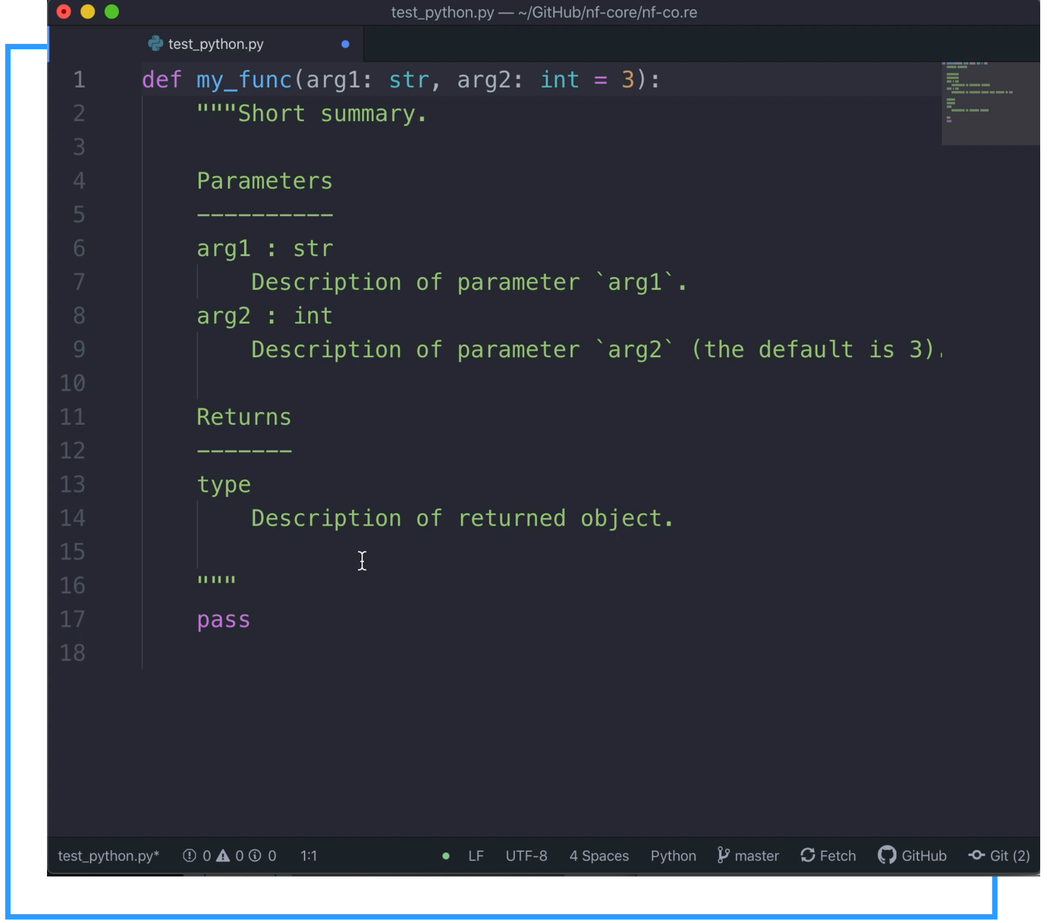
For packaged tools and projects

- Write free text in prose
- Can use markup languages (eg. Markdown)
- Can use WYSIWYG editors
- Code and documentation in separate files
- Describe concepts and usage

Automate writing
Editor plugins

Lint markdown text as you write, and on every push / PR

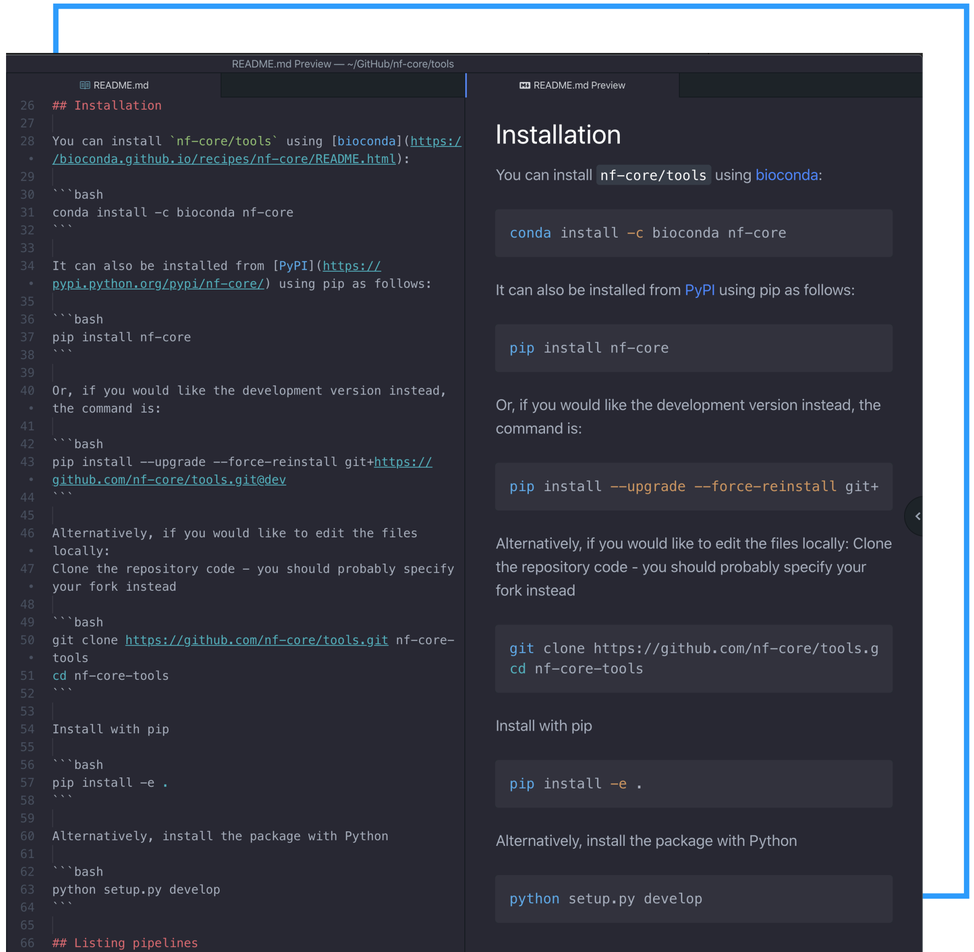


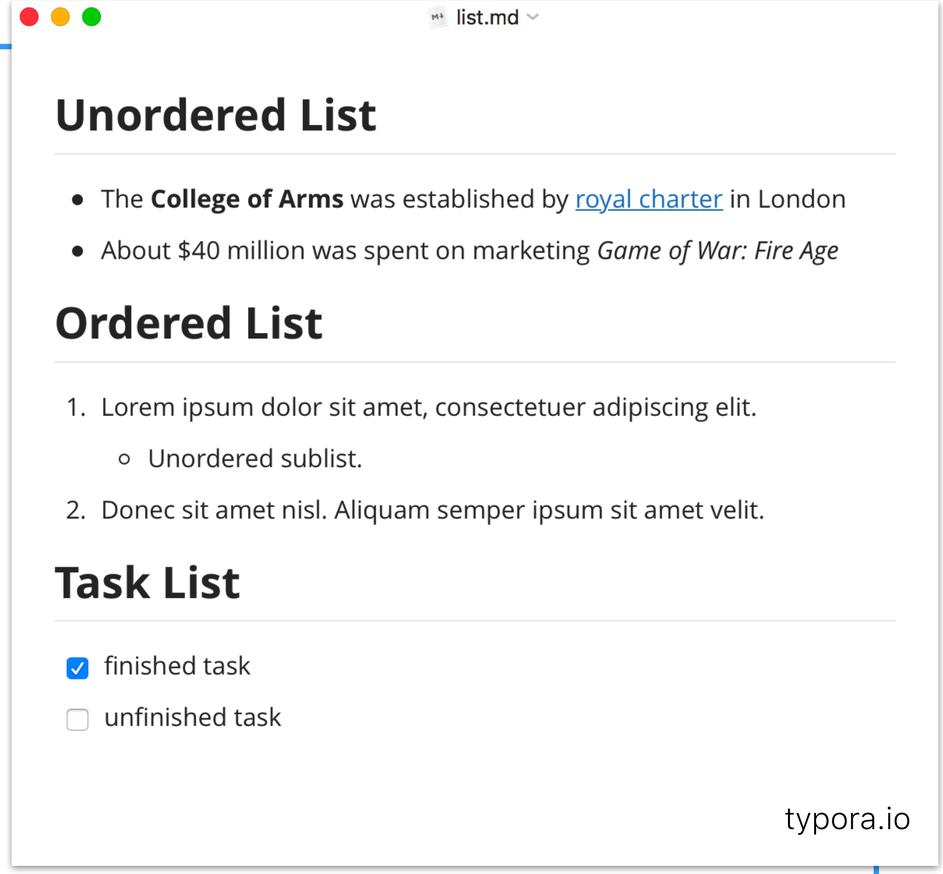


Auto-generate docstrings and lint for missing variables

Visualise writing
See your documentation

Preview Markdown rendering
as you type





WYSIWYM (what you see is what you mean) editors render in-place as you type

NEVER UNDERESTIMATE A **README**

PART TWO

Beautiful docs:
Building

READ ON →

Online docs
The basics

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Build

Convert what you've written to HTML

Host

Make these HTML pages available on the web

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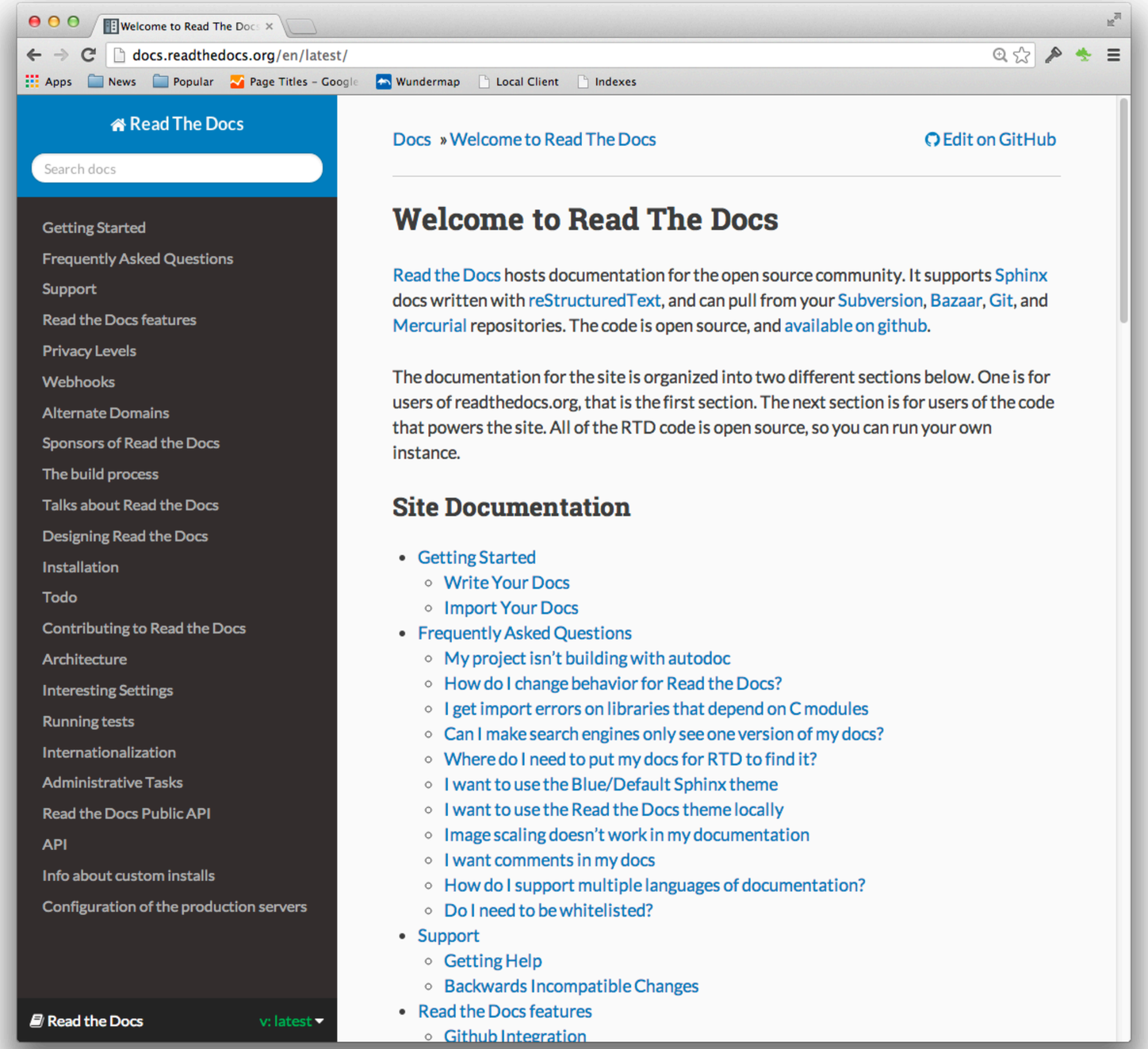
DE-FACTO STANDARD

SPHINX
Python Documentation Generator

Read the Docs

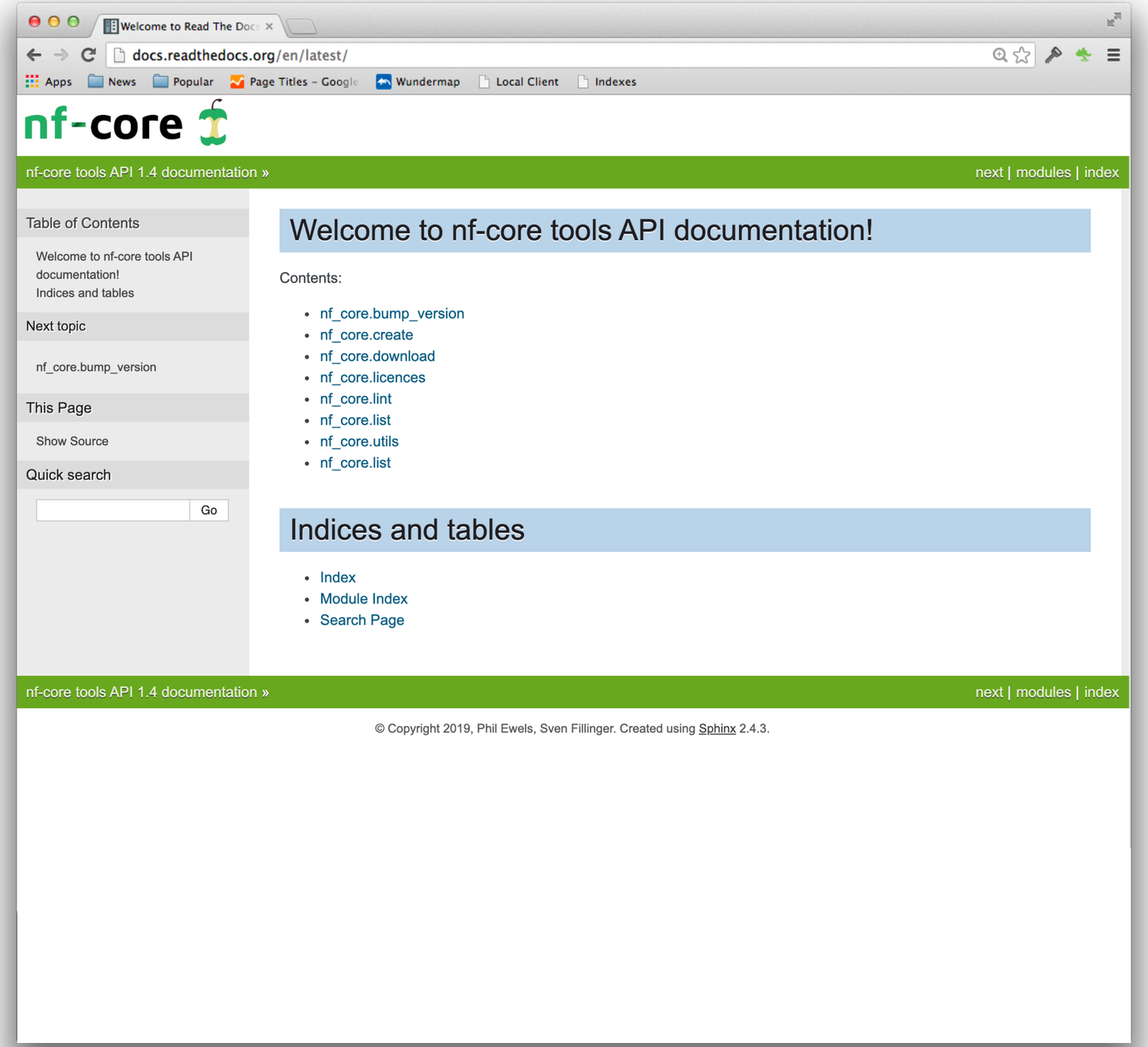
- Free hosting
- Multiple versions
- Quick to get up and running
- **Autodoc docstrings!**



GO YOUR OWN WAY

SPHINX
Python Documentation Generator

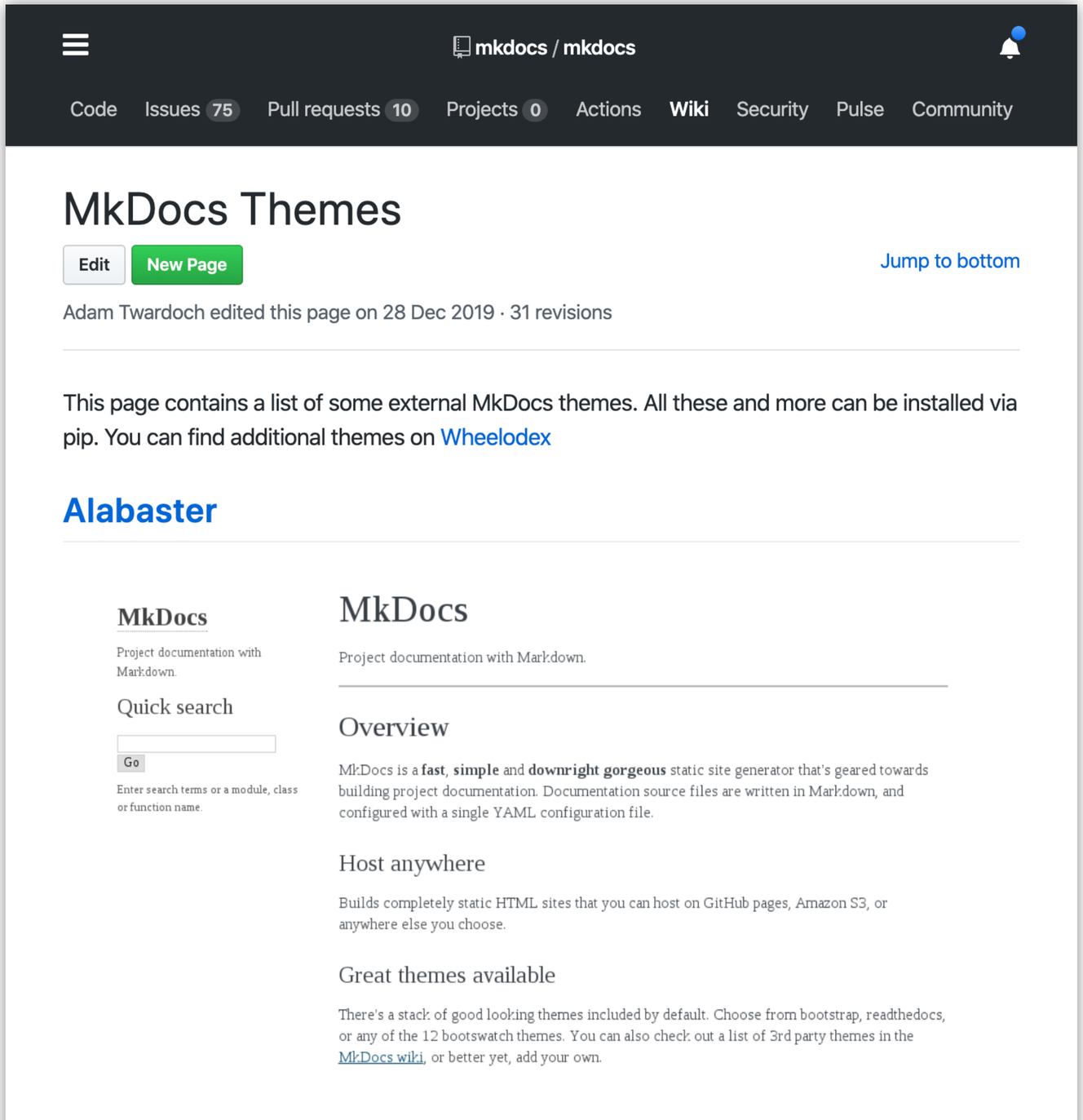
- Autodoc docstrings!
- Custom themes
- Full customisation, plugins



LOOK MA!
THEMES!

MkDocs

- Auto-refresh local server
- Lots of nice themes available
- Markdown + YAML
- Easy to customise
- Also supported by Read the Docs



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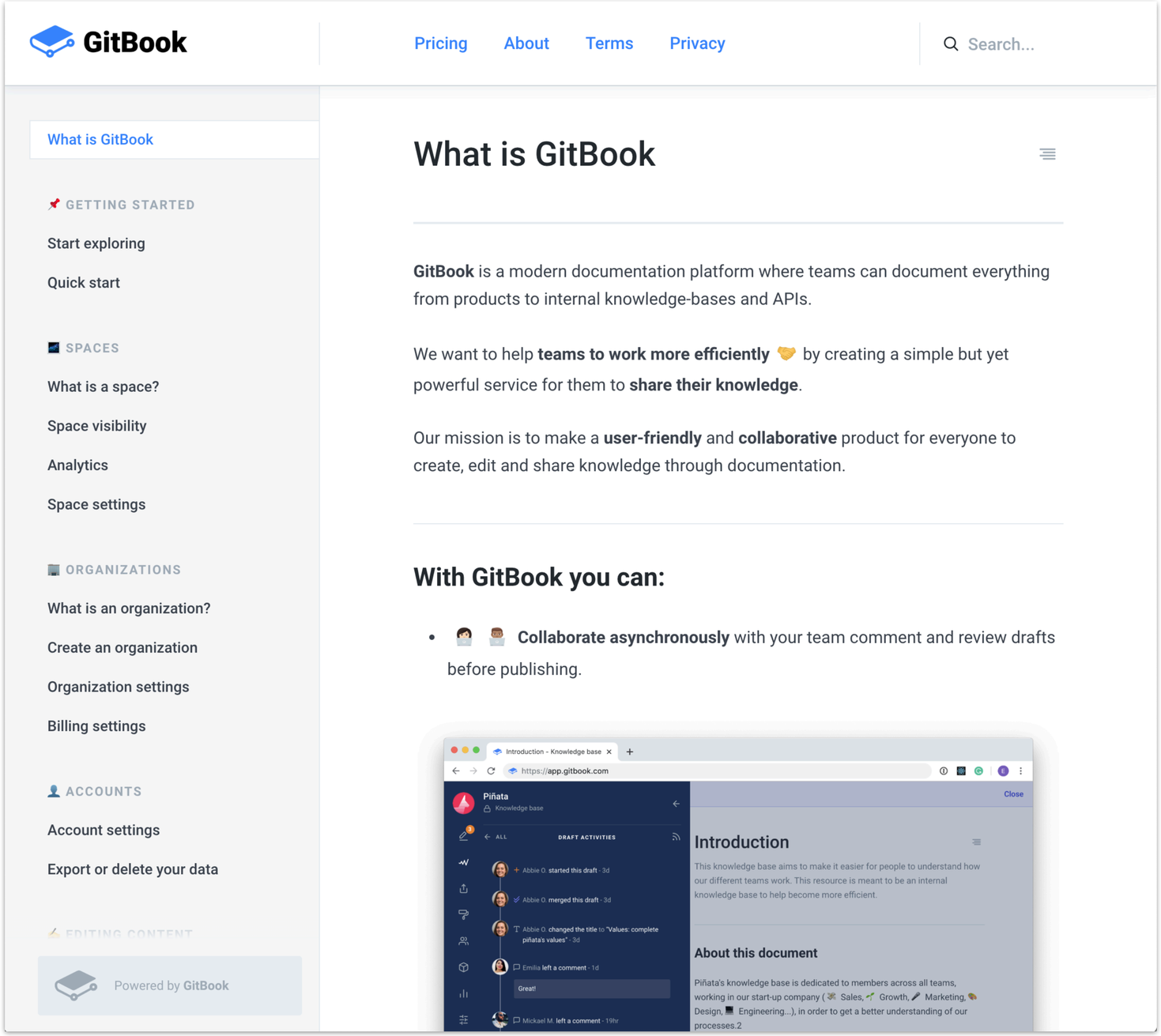
RICH TEXT
EASY EDIT

GitBook

- WYSIWYG editor for markdown
- Bi-directional integration with GitHub
- Free hosting + domain
- **Powerful addons, especially for web APIs**



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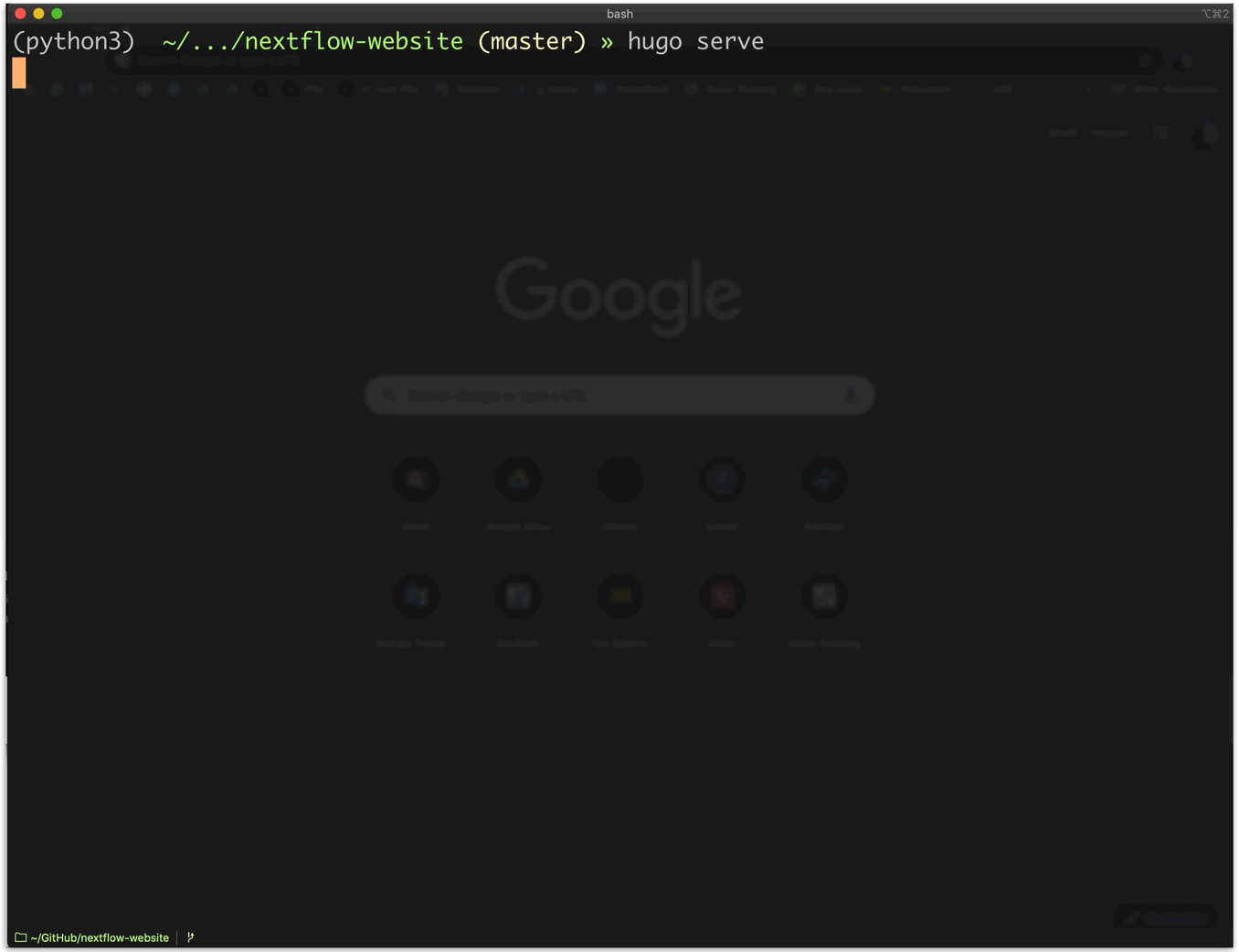
STATIC WEB BUILDERS

jekyll

HUGO

- Build static sites from Markdown
- Lots of templates available
- Complete customisation possible



ROLL YOUR OWN

- Convert markdown to HTML yourself
- Build your own website
- Total control over the output
- Can add in additional functionality
- More difficult than the alternatives

PART TWO

Beautiful docs:

Hosting

READ ON

- Update on commit
- Automatically build HTML docs
- Host web pages

WHAT YOU NEED

- Renders Markdown / RST / others into HTML automatically
- Comes for free when you use GitHub
- Co-located with code
- Impossible to customise aesthetics

GitHub Repository

Read *the* Docs

- Builds Spinx and MkDocs automatically
- Free for open-source repos
- readthedocs.io subdomain URL for free
- Custom domain names possible

- **Host any static HTML for free**
- github.io domain name for free
- Custom domain names possible
- Can build Jekyll websites automatically

GitHub Pages

GitHub Pages

- Automate just about anything
- Run any docs build tool for every commit
- Push to a GitHub Pages branch
- Upload HTML to any web server

GitHub Actions

- Host your website anywhere you want
- Build your website however you want
- Style your website however you want
- Probably not free

Personal Hosting

BONUS

The wonderful world of:

The GitHub API

READ ON →

Triggers

React to events on GitHub

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- Web hooks broadcast event information to other resources
- GitHub Actions run jobs when requested

Web Hooks

Ping a remote URL with a JSON payload when a given event happens

GitHub Actions

Run a compute job with custom software and commands on a given trigger

nf-core website

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Fetch details for all pipelines

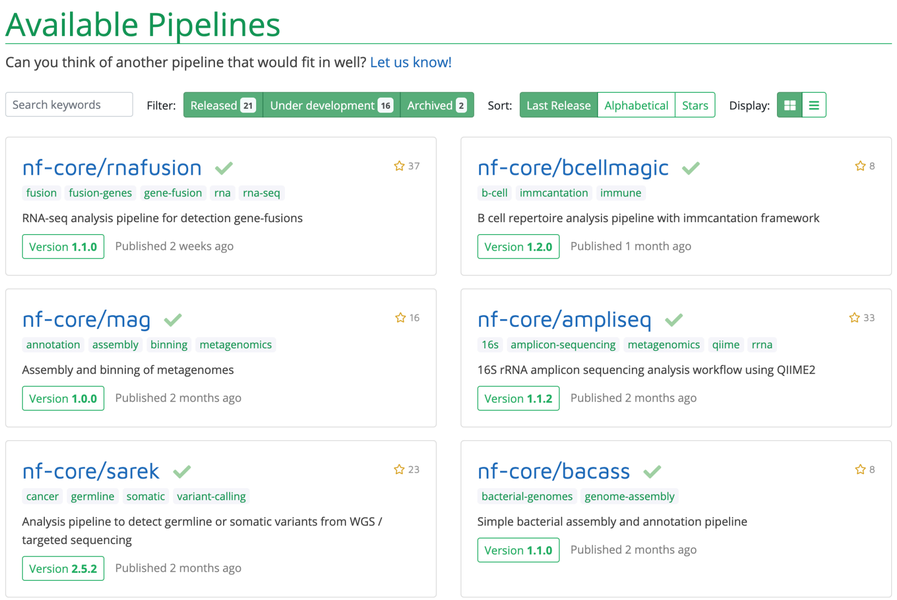
Releases, keywords, stars, downloads, clones, file tree, markdown documentation

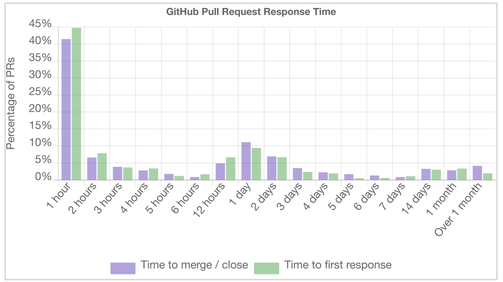
Repository statistics

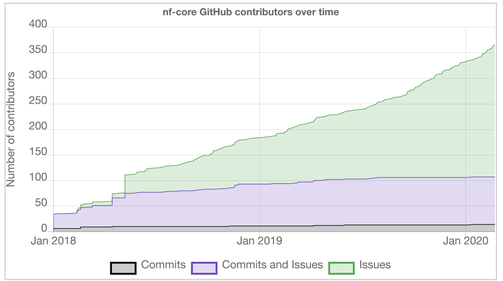
Clones, commits, issues, pull-requests, contributors, unique cloners

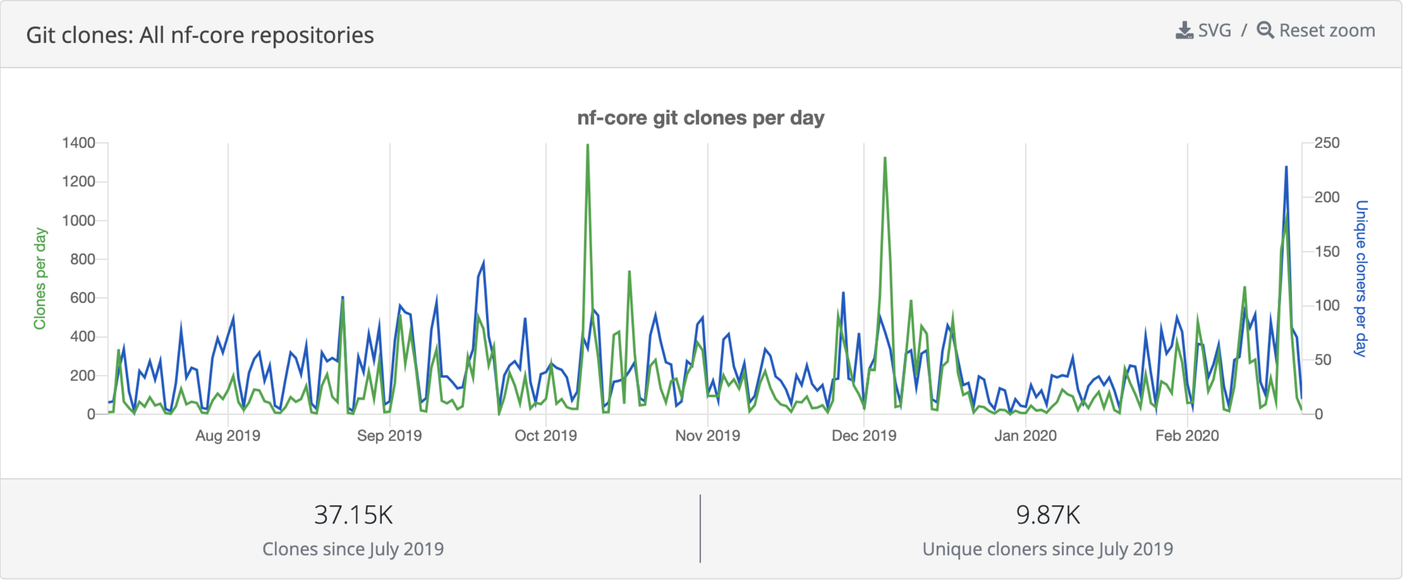
Organisation settings

Org members, repository settings, *membership visibility, *automated invites









nf-core website

Check repo settings

27 setting tests across 48 repositories

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Home | Pipelines | Tools | Usage | Developers | About | Join nf-core

Repository health

Check GitHub settings for all nf-core repositories

Pipelines

Pipeline Name	Released	Released after tools	Wikis	Issues	Merge commits	Rebase merging	Squash merges	Default branch	Keywords	Description	Repo URL	Social preview	Team access	Branches exist	Branch protection: master					Branch protection: dev					
ampliseq	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓
atacseq	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓
bacass	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓
bactmap	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
bcellmagic	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
cageseq	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓
chipseq	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓
coproid	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
crisprvar	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗
ddamsproteomics	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
deepvariant	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
denovohybrid	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
diaproteomics	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
eager	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓
epitopeprediction	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓
guideseq	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
hic	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
hlatyping	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
imcyto	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓
kmermaid	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
lncpipe	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
mag	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
methylseq	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
mhcquant	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
mnaseseq	✗	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓
nanoseq	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓	✓	✓	✓
nascent	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
neutronstar	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
proteomicslfq	✗	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓
rnafusion	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✗	✗	✓	✓	✓
rnaseq	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
sarek	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✗	✗	✓	✓	✓
scrnaseq	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓
slamseq	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
smartseq2	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗	✗
smrnaseq	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
vipr	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

nf-core website

Check repo settings

27 setting tests across 48 repositories

Fix repo settings

Attempt to fix incorrect settings in one click

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nascent	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
neutronstar	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
proteomicslfq	✗	✗	✓	✓	✓	✓	✓	✗	✓	✓
rnafusion	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
rnaseq	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
sarek	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
scrnaseq	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
slamseq	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓
smartseq2	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓
smrnaseq	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓
vipr	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓

Core repos

Pipeline Name	Wikis	Issues	Merge commits	Rebase merging	Squash merges	Default branch	Keywords	De
configs	✓	✓	✓	✓	✓	✓	✓	
dsl2pipelinetest	✓	✓	✓	✓	✗	✓	✗	
logos	✓	✓	✓	✓	✓	✓	✓	
modules	✓	✓	✓	✓	✓	✓	✓	
nf-co.re	✓	✓	✓	✓	✓	✓	✓	
test-datasets	✓	✓	✓	✓	✓	✓	✓	
tools	✓	✓	✓	✓	✓	✓	✓	

Actions

All pipelines | Refresh data | Fix data

Warning: page will take a minute or two to load. Even when refreshing one repo, some tests will be refreshed for all repos.

sphinx-doc.org

readthedocs.org

mkdocs.org

gitbook.com

Make Beautiful Docs!

typora.io

jekyllrb.com

gohugo.io

pages.github.com

Phil Ewels

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phil.ewels@scilifelab.se

tallphil

Icons: thenounproject.com Images: unsplash.com Theme: EASY