Blogging

04 Hugo

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# Overview

# Preparation

## Bootstrap 5

Seems that most BS4 themes are OK for BS5, so we can use:

* <https://bootswatch.com/>
* <https://bootstrap.themes.guide/>
* <https://bootstrap.build/themes>
* <https://www.bootpress.org/bootstrap.html>
* <https://themestr.app/theme?start=1&font=Open%20Sans&palette=2&icons=fontawesome&border-width=1px&spacer=0.7rem&btn-border-radius=0&enable-gradients=true>

If we want to create new color schemes, here are some great links for that:

[**https://www.palettelist.com/**](https://www.palettelist.com/)

* has SASS export
* generates 8 colors which we can vary

[**https://loading.io/color/random/**](https://loading.io/color/random/)

* another superb palette generator

[**http://colormind.io/bootstrap/#**](http://colormind.io/bootstrap/)

* 5 colors
* colors can be locked
* separate info/success/warning/danger colors
* ideal for bootstrap (center = primary color, leftmost = light, rightmost = dark, the left / right colors from the center can be used as secondary)
* has website / material admin dashboard preview

## Layouts

<https://csslayout.io/patterns/>

<https://css-tricks.com/snippets/css/a-guide-to-flexbox/> + <https://github.com/philipwalton/flexbugs>

Consider using the special layout introduced in the UPS Kitchen sink project. With some extras, based on how we set up our frame (some special off-canvas sliders might need us to set the header height) we could achieve almost any layout we need, starting from classic responsive header menus to an admin-layout.

We might save some settings (like dark/white mode) into cookies, some details we keep in memory only, like: is menu open.

## Bootstrap 5 Themes

Volt - <https://demo.themesberg.com/volt/> - nice 2 level menu

Admin Kit - <https://demo.themesberg.com/volt/> - nice 2 level menu with groups

# Hugo

## Local development

Forget choco install or WSL, on windows simply:

1. <https://github.com/gohugoio/hugo/releases> pick lates windows version
2. Drop it into a folder (I used Program Files)
3. In PowerShell: **set PATH=”%PATH%;C:\Program Files\Hugo”**
4. hugo server --watch --debug --verbose --buildDrafts --buildFuture --port=5000

Troubleshooting tips - <https://youtu.be/c8fJIRNChmU>

## Deployment

Also most won’t have github actions added automatically, so deployment needs a bit of research and manual work: <https://gohugo.io/hosting-and-deployment/hosting-on-github/>

GithubActions CI script for GithubPages deployment: <https://github.com/peaceiris/actions-hugo>

<https://blog.kye.dev/hugo-github-pages-actions/>

<https://michaelcurrin.github.io/code-cookbook/recipes/ci-cd/github-actions/workflows/deploy-gh-pages/github-pages-action.html>

### Basic

Deploy to the gh-pages branch (by default).

Add this as a step in your workflow and **set the last parameter to your build directory** e.g. \_site for Jekyll or build for a Node app.

steps:

- name: Deploy 🚀

uses: peaceiris/actions-gh-pages@v3

with:

github\_token: ${{ secrets.GITHUB\_TOKEN }}

publish\_dir: public

### Don’t clean

Prevent the old files in the gh-pages from being deleted. This is useful if you have hash filenames for assets and want to keep the assets for old deploys available. This avoids getting 404 error on loading JS for example, where the browser has the old HTML page cached. That error causes a blank page on a Vue app after a deploy.

keep\_files: true

### Publish to a custom branch

Choose a different branch.

publish\_branch: master

### Publish to an alternative repo

Choose a repo for external\_repository. Note use of deploy\_key from that target repo, as github\_token will probably not work.

- name: Deploy 🚀

uses: peaceiris/actions-gh-pages@v3

with:

deploy\_key: ${{ secrets.ACTIONS\_DEPLOY\_KEY }}

external\_repository: username/external-repository

publish\_branch: master

publish\_dir: public

### Scheduled deployment

name: GitHub Pages

on:

push:

branches:

- master

schedule:

- cron: '24 \*/24 \* \* \*' # Once a day

## Requirements

1. 404 page
2. auto TOC generator <https://gohugo.io/content-management/toc/>
3. search capability <https://gohugo.io/tools/search/> - **external –** recommending: FUSEJS - <https://gist.github.com/eddiewebb/735feb48f50f0ddd65ae5606a1cb41ae#layouts---default-searchhtml>
4. code highlighting <https://gohugo.io/content-management/syntax-highlighting/>
5. tagging, categorizing – <https://gohugo.io/content-management/taxonomies/>
6. social share - <http://hugocodex.org/add-ons/share-buttons/>

<https://gohugo.io/templates/>

## Possible HUGO themes

**Meghna**

* <https://github.com/themefisher/meghna-hugo>, <https://demo.themefisher.com/meghna-hugo/>
* Dark mode, Material design
* Landing page, **Single-page-site** (with separate blog pages), **Social share icons, Extra JS** – selections, image viewer

**Parsa**

* <https://github.com/themefisher/parsa-hugo>, <https://demo.themefisher.com/parsa-hugo/>
* Light mode, Material design
* **Working search with highlight, working taxonomy, paging, cookie consent, good menu for mobile with search**

**Liva**

* <https://github.com/gethugothemes/liva-hugo>, https://demo.themefisher.com/liva-hugo/
* **Working search with highlight, taxonomies, disqus integration,** heading with relevant social icons

**Airspace**

* <https://github.com/themefisher/airspace-hugo>, <https://github.com/felixb/airspace-hugo-1>
* Light mode, Material design, Landing page
* Paging, taxonomy

**Doks**

* <https://themes.gohugo.io/doks/>, <https://doks.netlify.app/>
* **Light & dark mode**, **collapsed menu has search field + social icons**, … search seems to work for docs only, not for blog posts…, **has image with post in single folder!**

**Infinity**

* <https://github.com/gethugothemes/infinity-hugo>
* Dark landing page

**Syna**

* <https://github.com/okkur/syna>, <https://themes.gohugo.io/theme/syna/>
* **Nice collapsed menu with search input., has image with post in single folder but it’s a docs and not posts based**

**Toha**

* <https://github.com/hugo-toha/toha> , <https://themes.gohugo.io/theme/toha/>
* **Hierarchical taxonomies – multi level**
* Nice landing page

**Clarity**

* <https://github.com/chipzoller/hugo-clarity>
* **Light and dark mode with selector, Taxonomies with count**, …

**Hugo Future Imperfect Slim**

* <https://github.com/pacollins/hugo-future-imperfect-slim>,
* <https://themes.gohugo.io/theme/hugo-future-imperfect-slim/>

**Hugo Tranquilpeak Theme**

* <https://themes.gohugo.io/theme/hugo-tranquilpeak-theme> , <https://github.com/kakawait/hugo-tranquilpeak-theme>
* **Hierarchical categories, searchable categories and tags,** …

**Ananke**

* <https://github.com/budparr/gohugo-theme-ananke>
* **nicely separated multi-language support**

**Bleach**

* <https://github.com/digivend/bleach-theme>

## Non-free themes

<https://gethugothemes.com/products/gojournal-hugo/> - nice menu & search when collapsed, search is working…

<https://gethugothemes.com/products/logbook-hugo/> 50$, nice, landing, search, …

## Getting started

hugo new site hugo-experiments

hugo new theme r-blog

<https://github.com/budparr/gohugo-theme-ananke> - nicely separated multi-language support

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archetype = template for the hugo new cmd

layout

<https://alison.rbind.io/post/2020-12-12-how-much-hugo/>

<https://www.youtube.com/watch?v=qtIqKaDlqXo>

inside front mapper use type: homepage (to change layout for a single file)

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theme\archetypes

theme\layouts\**\_default**\[list|single].html

theme\layouts\**partials**\[header|footer].html

**12] override default layout by adding a \_index.md** inside the desired content folder (or sub-folder) – just the “content” part!

14] layouts\index.html = homepage – replaces generic list template

15] content\blog (blog = section); layouts\blog = creating [single|list].html to override content for the given section

16] theme\layouts\**\_default\baseof.html** – main template, every page will implement this; using **blocks (defaults and overrides)**;

20] data folder; data\states.json; .Site.Data.states

\*\*] configuration directories: config\\_default\[menus|params|…].toml <https://gohugo.io/getting-started/configuration/>

**IMPORTANT!**

Originally the list.html applies just to the \content\[type=posts|docs|…] directory.

If we have multiple nesting like: \content\blog\my-series – then there won’t be anything displayed. To display a list there, we need to add **\_index.md** file (can be empty) but via Front Matter we can even choose the layout (and thus the list.html) we want to use there:

---

type: \_default

---

Also seems that using index.md allows us to define an article with images in the same folder!

<https://github.com/bibliolabs/docCookies/blob/master/docCookies.js>

<https://github.com/kaushalmodi/hugo-debugprint>

<https://github.com/kaushalmodi/hugo-bare-min-theme>

# Creating own template from ZERO

<https://www.mikedane.com/static-site-generators/hugo/> - videos and articles

<https://regisphilibert.com/blog/2018/02/hugo-the-scope-the-context-and-the-dot/>

<https://gohugo.io/templates/introduction/>

## Important notices

### static folder

The static folder will be gone on publish/debug – all it’s sub-folders will be added to the root. We’d eventually tweak the configuration to include the static folder too, but still it would not affect the static folder inside the selected template, just the one on the site itself – leading thus to 2 different expectations.

### Shortcodes

Usage is not allowed inside theme / layout definitions!

### Image URL inside Front Matter

An article must have it’s own folder to be able to use absolute paths when referencing images (in front matter or in markdown).

The statement above is true so for list as for page content!

-

**Having both absolute and relative URL’s is something we must consider when building the list.html layout!** Inside a page content it work’s without extra code, as long as we adhere to the main rule above!

-

We can add also support for an **ARTICLE-SERIES-FOLDER** as long as we stick with these rules:

1. This folder contains sub-folders, which define articles via index.md
2. This folder then can contain other assets.
3. The articles inside the ARTICLE-SERIES-FOLDER might reference assets from the ARTICLE-SERIES-FOLDER (or it’s asset folder) by using relative path: ../asset.name
4. When we have no permalinks configured, we’re even allowed to use ../other-article-in-series/asset.name
5. ~~The ARTICLE-SERIES-FOLDER is forbidden to contain any article (named or index.md)~~

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## Images – with absolute and relative paths

**Best practice:**

* Use always article folder
* Define article as index.md
* If necessary, introduce a series folder
* **If series folder contains an article, make sure it has no local assets referenced (so no absolute paths)**

-

**Our code (on the list) is a custom one.** When creating lists and solving all the image issues, we used these themes for motivation: <https://themes.gohugo.io/gochowdown/> (path issues), <https://themes.gohugo.io/doks/> (image template).

## Paging

<https://gohugo.io/templates/pagination/>

<https://glennmccomb.com/articles/how-to-build-custom-hugo-pagination/>

#### Normal

Usually when paging, we do access just the immediate posts (as on a file-system). This is implemented inside \_default/list.html

{{ range (.Paginator).Pages }}

{{ end }}

#### Nested folders

For organizing articles and/or posts, we might use folder nesting. But for blogs we usually want a different paging – where all posts are shown and can be paged.

Requirements:

* Pinned / featured first (possibility to limit: -1 = no features first, 0..N = TOP)
* Order by date descending

<https://damien.co/blog/2020-06-13-hugo-featured-posts-list/>

All blog posts (assuming we’re using the index.html on the .Type == “posts”):

where .Site.RegularPages "Type" .Type

Featured blogs:

where (where .Site. RegularPages  "Type" .Type) ".Params.featured" "=" true

**Solved:**

* Work with custom collections: filtering, ordering, merging
* Paginate over custom collection
* Accessing configuration variable
* See: **themes\r-blog\layouts\posts\list.html**

## Taxonomies

<https://gohugo.io/content-management/taxonomies>

**SCRATCH:** <https://regisphilibert.com/blog/2017/04/hugo-scratch-explained-variable/>

Expectations:

* At least 2 level for categories (level, show items, …)
* Include page’s count for taxonomies

<https://themes.gohugo.io/theme/hugo-tranquilpeak-theme>

* complex multi-level category and also item display
* has search capability over taxonomies
* has a tag / archive taxonomy page with search over tag names inside the page – but the way how it displays all the posts to a tag would very quickly end with a very large html

**Custom algorithm:**

1. get 1st level categories
2. then do recursively next levels
   1. get all pages to the current category (if page categories array matches parent category array items
   2. if page has additional category, there’s another nesting (recursion)

See shared code here: <https://discourse.gohugo.io/t/categories-sections-with-hierarchy/3058>

**What we learned:**

* **using partials as functions (to do the category match)**
* working with arrays (indexing)
* using range with index

**Interesting approach:** [**https://dpb587.me/post/2020/03/09/nested-taxonomies-with-hugo/**](https://dpb587.me/post/2020/03/09/nested-taxonomies-with-hugo/)

## TOC

## Search

Fuse JS

### Serch inside categories / tags

See:

* \hugo-tranquilpeak-theme\src\js\categories-filter.js
* \hugo-tranquilpeak-theme\src\js\tags-filter.js

## Code highlight

## Social share

See meghna

## Multiple authors

<https://codingnconcepts.com/hugo/multiple-authors-hugo/#define-an-author-taxonomy>

## RSS

## Google analytics

## Disqus

## TODO

Search inside taxonomies – see tranquilpeak theme

Math support