Hugo

Official Documentation

Hugo Docker Image that is not maintained by Hugo, but it is recommended by the official documentation

Nice blog post on using Hugo with Docker nodinrogers - Hugo in Docker

Site Setup

```
sudo apt install docker-compose
mkdir /Code/Docker/hugo && cd /Code/Docker/hugo
vim docker-compose.yml
```

Paste the following into the `docker-compose.yml` -

```
server:
  image: klakegg/hugo:0.93.2
  command: server
  volumes:
    - ".:/src"
  ports:
    - "1313:1313"
```

Now we try to start the container, but there's an error; This is because I had not created a site previously, so hugo has nothing to serve.

```
docker-compose up
Starting hugo_server_1 ... done
Attaching to hugo_server_1
server_1  | Error: Unable to locate config file or config directory. Perhaps you need to
create a new site.
server_1  |        Run `hugo help new` for details.
server_1  |
hugo_server_1 exited with code 255
```

I don't have hugo installed locally, and one of the main attractions to Docker for me is avoiding installing service dependencies to my local system. So, I will use the following command to access

the `hugo` CLI using Docker, which will generate a new site for us. Note that the `/src/site` directory is relative to the container, and not our local system. This command will bind our CWD to the container's `/src` directory (`$(pwd):/src`), and then generate the new site at `/src/site` on the container. Since this is a bound directory, the generated site files will be available on our local system.

```
docker run --rm -it -v $(pwd):/src klakegg/hugo:0.93.2 new site /src/site

Congratulations! Your new Hugo site is created in /src/site.

Just a few more steps and you're ready to go:

1. Download a theme into the same-named folder.
   Choose a theme from https://themes.gohugo.io/ or
   create your own with the "hugo new theme <THEMENAME>" command.
2. Perhaps you want to add some content. You can add single files
   with "hugo new <SECTIONNAME>/<FILENAME>.<FORMAT>".
3. Start the built-in live server via "hugo server".

Visit https://gohugo.io/ for quickstart guide and full documentation.
```

```
kapper@xps:~/Code/Docker/hugo/site$ tree -L 2
.
├── archetypes
│   └── default.md
├── config.toml
├── content
├── data
├── layouts
├── public
│   ├── categories
│   ├── index.xml
│   ├── sitemap.xml
│   └── tags
├── resources
│   └── _gen
├── static
└── themes
```

But when we run `docker-compose up` we still get the same error.

```
docker-compose
up



Starting hugo_server_1 ... done
Attaching to hugo_server_1
server_1  | Error: Unable to locate config file or config directory. Perhaps you need to
create a new site.
server_1  |        Run `hugo help new` for details.
server_1  |
hugo_server_1 exited with code 255
```

This is because the hugo container expects the `/src` volume to be bound to the directory that contains our site. We previously generated our site within the `site` subdirectory, so we need to modify our `docker-compose.yml` to reflect this under the `volumes` section -

```
server:
  image: klakegg/hugo:0.93.2
  command: server
  volumes:
    - "./site:/src"
  ports:
    - "1313:1313"
```

Now we can start our hugo site, and visit it in our browser at `localhost:1313`, assuming you are using the default ports above.

```
docker-compose up


Recreating hugo_server_1 ... done
Attaching to hugo_server_1
server_1  | Start building sites …
server_1  | hugo v0.93.2-643B5AE9 linux/amd64 BuildDate=2022-03-04T12:21:49Z
VendorInfo=gohugoio
server_1  | WARN 2022/06/03 14:58:20 found no layout file for "HTML" for kind "home": You
should create a template file which matches Hugo Layouts Lookup Rules for this combination.
server_1  | WARN 2022/06/03 14:58:20 found no layout file for "HTML" for kind "taxonomy": You
should create a template file which matches Hugo Layouts Lookup Rules for this combination.
server_1  | WARN 2022/06/03 14:58:20 found no layout file for "HTML" for kind "taxonomy": You
should create a template file which matches Hugo Layouts Lookup Rules for this combination.
server_1  |
```

```
server_1  |                   | EN
server_1  | -------------------+-----
server_1  |   Pages            |  3
server_1  |   Paginator pages  |  0
server_1  |   Non-page files   |  0
server_1  |   Static files     |  0
server_1  |   Processed images |  0
server_1  |   Aliases          |  0
server_1  |   Sitemaps         |  1
server_1  |   Cleaned          |  0
server_1  |
server_1  | Built in 1 ms
server_1  | Watching for changes in /src/{archetypes,content,data,layouts,static}
server_1  | Watching for config changes in /src/config.toml
server_1  | Environment: "DEV"
server_1  | Serving pages from memory
server_1  | Running in Fast Render Mode. For full rebuilds on change: hugo server --
disableFastRender
server_1  | Web Server is available at http://localhost:1313/ (bind address 0.0.0.0)
server_1  | Press Ctrl+C to stop
```

At this point, the `-d` flag will be useful to us since we no longer need the debug output from the container. If you plan to have the container up for a while and won't be using this output, detach the container from your session -

```
docker-compose up -d


Starting hugo_server_1 ... done
```

Git Repository

You can track your entire site as a Git repository, if you want to. To to this, I would run the following commands, where the root of the repository ends up being the directory that contains the `docker-compose.yml` file. This bundles everything together so we can easily deploy the site on a new server if needed.

```
git init


Initialized empty Git repository in /home/kapper/Code/Docker/hugo/.git/
```

```
git status

On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        docker-compose.yml
        site/

nothing added to commit but untracked files present (use "git add" to track)
```

This output produces a warning telling us that we have an embedded repository, because I ran `git clone git@github.com:StaticMania/portio-hugo.git site/themes/portio` before initializing the repository. I wanted to track some test theme in the initial commit, but my hugo site is still not configured to use any theme. This way I can always restore the original configurations if I ever need them, or I could even just reference them on Github by looking in the repository history.

```
git add .
warning: adding embedded git repository: site/themes/portio
hint: You've added another git repository inside your current repository.
hint: Clones of the outer repository will not contain the contents of
hint: the embedded repository and will not know how to obtain it.
hint: If you meant to add a submodule, use:
hint:
hint:   git submodule add <url> site/themes/portio
hint:
hint: If you added this path by mistake, you can remove it from the
hint: index with:
hint:
hint:   git rm --cached site/themes/portio
hint:
hint: See "git help submodule" for more information.
```

The above output indicates that we could run `git submodule add git@github.com:StaticMania/portio-hugo.git site/themes/portio` to track the Portio theme as a submodule of our repository. For me, I won't - simply because Portio was the theme I used for my first attempt at configuring a Hugo theme. I plan to shop around for a theme that I like, and when I settle on one I will likely add that as a submodule.

Now, before we install our theme we could make a commit to track the site as it was newly generated by Hugo. Simply run `git commit` and type your initial commit message, then continue to work. You don't need to push to a remote until you're ready. I'll probably just track this project locally for a while and push it to a repo only when I go to deploy it. This way I will retain my repository history and have access to useful git commands to restore files or view diffs.

Themes

To start, let's look at the Portio Hugo theme on GitHub. This repo provides these install instructions which we will use to configure the theme below

```
cd themes/
pwd
~/Code/Docker/hugo/site/themes
```

```
git clone git@github.com:StaticMania/portio-hugo.git portio
fatal: could not create work tree dir 'portio': Permission denied
```

To fix the above error, change ownership of these files to your current user -

```
kapper@xps:~/Code/Docker/hugo/site/themes$ cd ../../
kapper@xps:~/Code/Docker/hugo$ sudo chown -R kapper:kapper site/
kapper@xps:~/Code/Docker/hugo$ ll
total 16
drwxrwxr-x  3 kapper kapper 4096 Jun  3 11:29 ./
drwxrwxr-x  3 kapper kapper 4096 Jun  3 10:13 ../
-rw-rw-r--  1 kapper kapper  114 Jun  3 10:58 docker-compose.yml
drwxr-xr-x 10 kapper kapper 4096 Jun  3 10:57 site/
```

```
git clone git@github.com:StaticMania/portio-hugo.git portio

Cloning into 'portio'...
remote: Enumerating objects: 1377, done.
remote: Total 1377 (delta 0), reused 0 (delta 0), pack-reused 1377
Receiving objects: 100% (1377/1377), 8.63 MiB | 16.73 MiB/s, done.
Resolving deltas: 100% (502/502), done.
```

```
cp -r site/themes/portio-hugo/exampleSite/* site/
```

Now we can restart our docker container and see the theme in the browser!

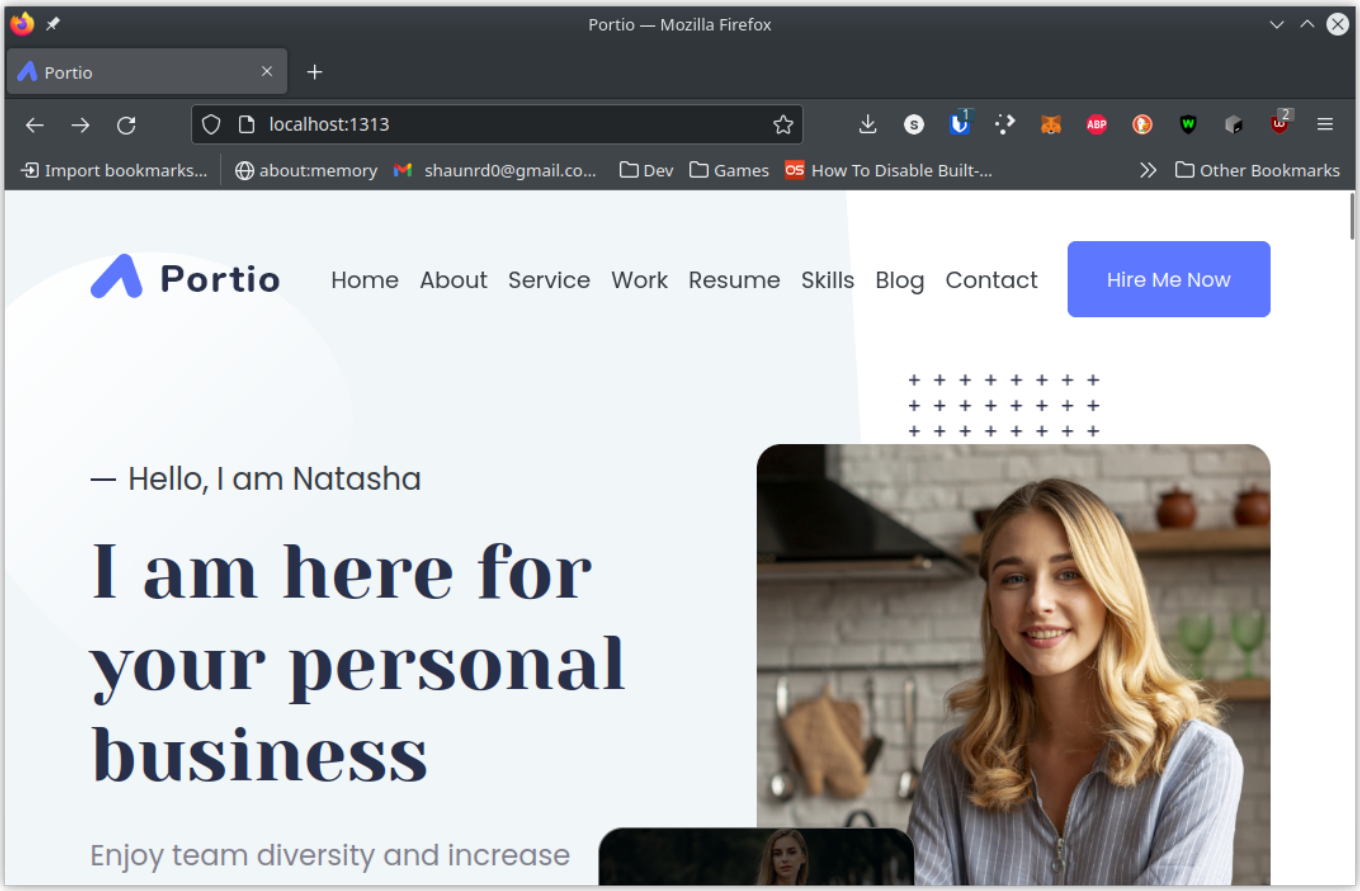
```
docker-compose down && docker-compose up -d`
```

Unfortunately at this point the theme did not render correctly for me. This was because I was targeting the `klakegg/hugo:0.93.2` docker image in my `docker-compose.yml`, and this theme requires Hugo Extended to render SASS/SCSS styling. So, we modify the `docker-compose.yml` to contain the below `ext-ubuntu` image instead -

```
server:
  image: klakegg/hugo:ext-ubuntu
  command: server
  volumes:
    - "./site/:/src"
  ports:
    - "1313:1313"
```

And when we restart the container with the following command once more, everything is working and the theme is rendered correctly!

```
docker-compose down && docker-compose up -d`
```



Creating Posts

In your `config.toml`, set the following option -

```
contentDir = 'content/'
```

Then we can create our `posts` directory, and run `hugo new content/posts/post-name.md` to create a new post.

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