Creating a Blog with Hexo, Docker and Github, Free Hosting and https

This is a tutorial on creating a blog or website using hexo.io (a static site generator), Docker and Github with your own custom domain and https, for the cost of your domain name only and a little bit of time.

Introduction

I wanted a convenient way of running sites, i.e. blogs and supporting sites for my projects, without a hosting service or server infrastructure like Wordpress, I also, wanted to keep this as cost effective as possible with free being an ideal.

After comparing a multitude of offerings, I settled on the excellent <u>hexo.io</u> platform, *'A fast, simple & powerful blog framework'*. The great thing about hexo, is that your blog/site is generated as a collection of static files. You don't need anything other than a decent web server to host your page and given that it's a static site, it reduces security concerns significantly in comparison to other popular blogging platforms.

With the use of hexo, you've also got a means that you can work on your blog locally, without internet connectivity. If you're like me and commute a lot, especially where there is intermittent wifi connectivity (London Underground), then this is particularly useful.

The platform is built with node.js and subsequently, there are for it's configuration, a variety of modules that need to be installed through npm. Whilst this is not that difficult in itself, it is a process that can result in a lot of installation residual on ones system. For this reason, we're going to be using Docker to encapsulate the main blogging component that will run our system, keeping our own system shipshape and shiny.

Github, offers a great solution for hosting sites with it's pages.github.io service, all you need to have is a github account to make use of this. You can even, configure the service to leverage your own domain name, with Github taking care of aspects like https for you for free.

Prerequisites

You will need to have the following -

- Docker installation. Docker is available for Mac/Windows/Linux and is easily installed
- Domain Name (optional). I will be using a domain name for my configuration. If you wish to follow along fully, you'll need a domain name but, you can just as easily stick with the free subdomain provided by Github pages, i.e. name.github.io, and skip the domain name related aspects in this tutorial. If you don't have a domain name but wish to purchase one, <u>name.com</u> is an excellent provider and fits in well with this tutorial
- Github account, sign up for free on github.com

Overview

In the subsequent sections, we will be covering the complete setup of <u>https://masteringansible.com</u>, a domain I will be using to support my online course on <u>Mastering Ansible</u>

Docker Pull the spurin/hexo Image

On Docker Hub there is a pre-made image made by myself, containing the steps to install both Hexo and Hexo-Admin. More details about the image can be reviewed <u>here</u>. With docker installed, from a command prompt/terminal, issue the following command to pull the latest version of the image -

```
$ docker pull spurin/hexo
Using default tag: latest
latest: Pulling from spurin/hexo
f7e2b70d04ae: Pull complete
19dd238db899: Pull complete
bc906578463d: Pull complete
2cdb432dfa21: Pull complete
355d69d6aa35: Pull complete
eb0f2b72fc92: Pull complete
Digest: sha256:e0c1b7a95b6a6e339aff65cde86bddeced95a94eedc42b0db794a5108691f36e
Status: Downloaded newer image for spurin/hexo:latest
```

Create a container for your site

As we may have multiple sites, I like to give the running container a name that references the site that it relates too, so that I can easily see the container I wish to interact with.

I also like to store the Docker volume that will relate to this, on Dropbox, so that I have a backup of my running configuration as most of my efforts in this space are performed on my personal laptop.

The following example, assumes a domain name of masteringansible.com, with the local hexo server, running on port 4000. The -v *'/Users/james/Dropbox/James/Application\ Folders/docker/volumes/masteringansible.com'* is the path to where I will store the running configuration for the container.

This command, creates a container for us using the spurin/hexo image as a base -

```
$ docker create — name=hexo-masteringansible.com \
-e HEXO_SERVER_PORT=4000 \
-v /Users/james/Dropbox/James/Application\ Folders/docker/volumes/masteringansible.com:/app \
-p 4000:4000 \
spurin/hexo
```

We can start the container and follow the logs, when this runs for the first time, if a site does not exist in the target folder, one will be created, and subsequently, hexo-admin will be installed inside the site -

```
$ docker start hexo-masteringansible.com && docker logs — follow hexo-masteringansible.com
hexo-masteringansible.com
***** App directory is empty, initialising with hexo and hexo-admin *****
INFO Cloning hexo-starter to /app
Cloning into '/app'...
Submodule 'themes/landscape' (https://github.com/hexojs/hexo-theme-landscape.git) registered for path 'themes/landscape'
Cloning into '/app/themes/landscape'...
Submodule path 'themes/landscape': checked out '73a23c51f8487cfcd7c6deec96ccc7543960d350'
INFO Install dependencies
yarn install v1.13.0
info No lockfile found.
[1/4] Resolving packages...
warning hexo > titlecase@1.1.2: no longer maintained
[2/4] Fetching packages...
info fsevents@1.2.7: The platform "linux" is incompatible with this module.
info "fsevents@1.2.7" is an optional dependency and failed compatibility check. Excluding it from installation.
[3/4] Linking dependencies...
[4/4] Building fresh packages...
success Saved lockfile.
Done in 68.26s.
INFO Start blogging with Hexo!
npm WARN deprecated titlecase@1.1.2: no longer maintained
npm notice created a lockfile as package-lock.json. You should commit this file.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.7 (node_modules/fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.7: wanted {"os":"darwin","arch":"any"} (current:
{"os":"linux","arch":"x64"})

added 102 packages from 37 contributors, removed 40 packages, updated 319 packages and audited 4697 packages in 102.421s
found 2 low severity vulnerabilities
 run `npm audit fix` to fix them, or `npm audit` for details
npm WARN deprecated minimatch@2.0.10: Please update to minimatch 3.0.2 or higher to avoid a RegExp DoS issue
npm WARN deprecated connect@2.7.11: connect 2.x series is deprecated
npm WARN deprecated hoek@2.16.3: This version is no longer maintained. Please upgrade to the latest version.
npm WARN deprecated cryptiles@2.0.5: This version is no longer maintained. Please upgrade to the latest version.
npm WARN deprecated boom@2.10.1: This version is no longer maintained. Please upgrade to the latest version.
npm WARN acorn-dynamic-import@4.0.0 requires a peer of acorn@6.0.0 but none is installed. You must install peer dependencies yourself.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.7 (node_modules/fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.7: wanted {"os":"darwin","arch":"any"} (current:
{"os":"linux","arch":"x64"})

+ hexo-admin@2.3.0
added 252 packages from 440 contributors and audited 6822 packages in 67.502s
found 18 vulnerabilities (6 low, 6 moderate, 5 high, 1 critical)
 run `npm audit fix` to fix them, or `npm audit` for details
***** Starting Server on port 4000
INFO Start processing
INFO Hexo is running at http://localhost:4000 . Press Ctrl+C to stop.
```

We can press Ctrl+C at this point without concern as we're following the logs, the container is running in the background and thus our Ctrl+C stops the following of the logs, not the actual container.

I'm performing this on my laptop so Docker is localhost, adjust the name/ip address accordingly if you're running Docker elsewhere. If you browse to http://localhost:4000, you'll be presented with a hexo starting page as follows -
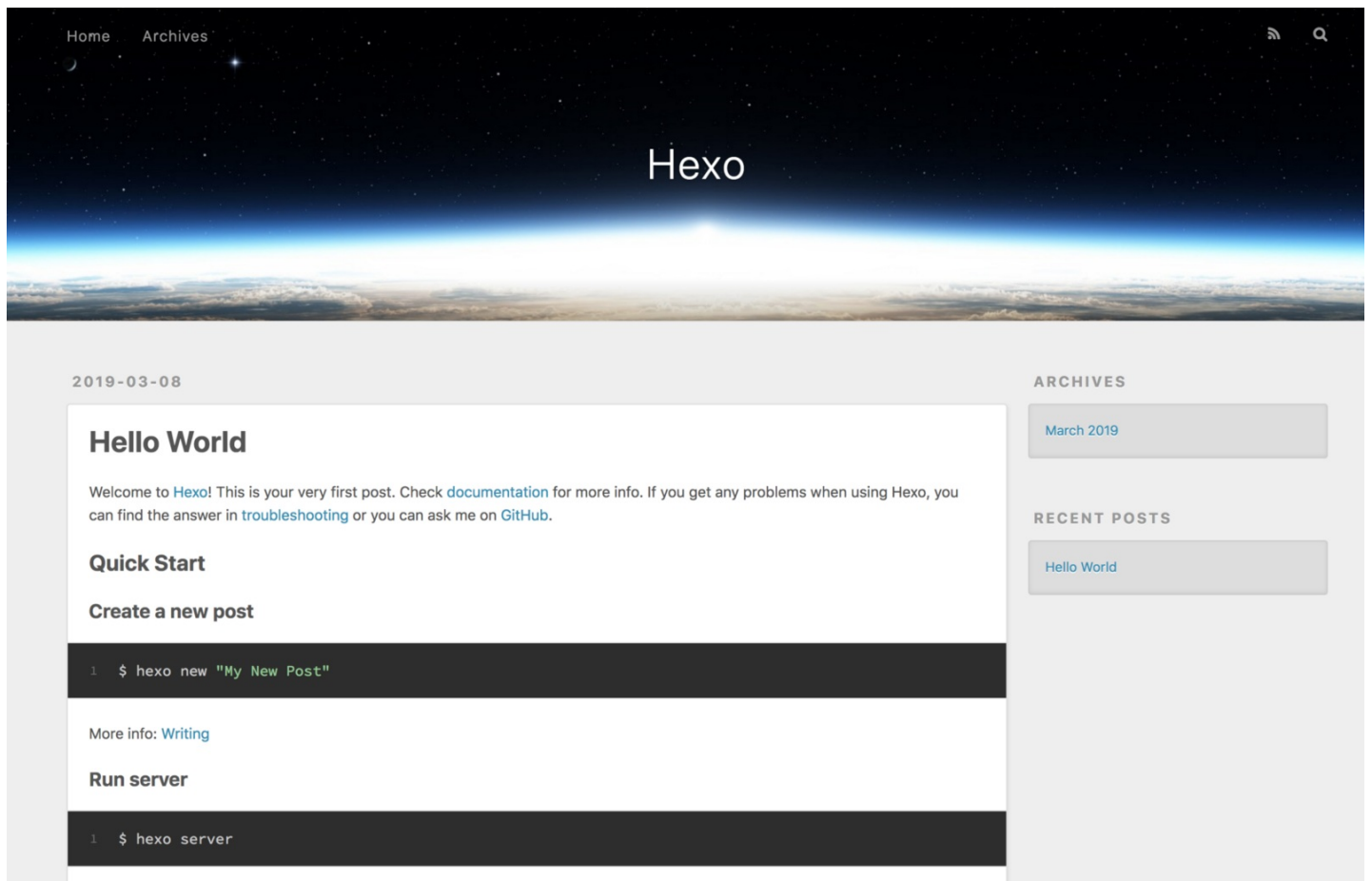
You can also, access the admin interface for hexo-admin at http://localhost:4000/admin -
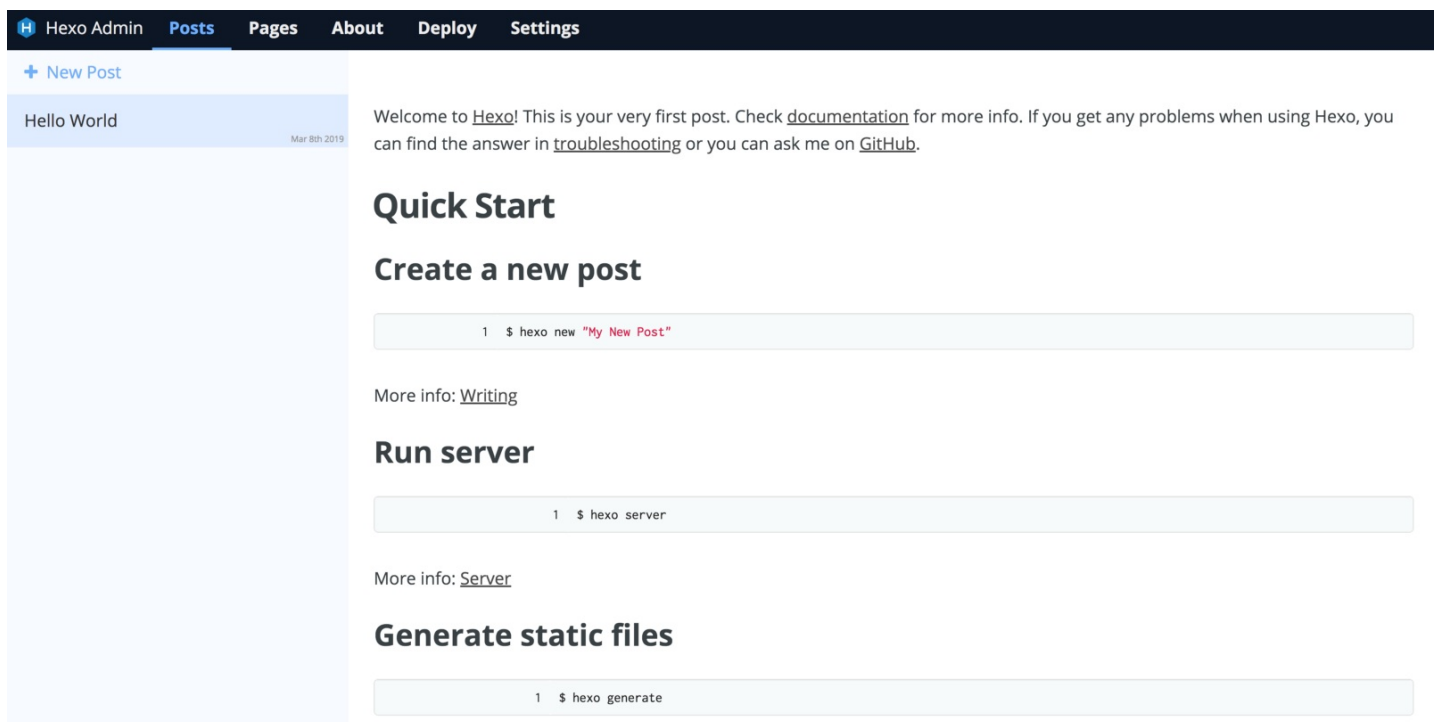
Customising the Theme

This theme may suit your needs but personally, I am a big fan of the Hueman theme. The next steps cover the installation of this particular theme.

Each theme will have their own requirements but this give an overall idea of the process.

Execute a bash shell in the running container, giving you a prompt similar to the following -

```
$ docker exec -it hexo-masteringansible.com bash
root@4e42b5c764b9:/app#
```

We will clone the theme from it's source github repository, and whilst we're in the shell, we're going to rename the default configuration file to the expected name -

```
root@4e42b5c764b9:/app# git clone https://github.com/ppoffice/hexo-theme-hueman.git themes/hueman
Cloning into 'themes/hueman'...
remote: Enumerating objects: 1831, done.
remote: Total 1831 (delta 0), reused 0 (delta 0), pack-reused 1831
Receiving objects: 100% (1831/1831), 5.55 MiB | 1.51 MiB/s, done.
Resolving deltas: 100% (935/935), done.
root@4e42b5c764b9:/app#
```

```
root@4e42b5c764b9:/app# mv themes/hueman/_config.yml.example themes/hueman/_config.yml
root@4e42b5c764b9:/app# exit
```

The next change, is to our blog configuration file which is now accessible via two ways

1. In the container under /app/_config.yml
2. Outside of the container in the local directory, in my case this would be /Users/james/Dropbox/James/Application\ Folders/docker/volumes/masteringansible.com/_config.yml

Remember, when we created the container, we specified the volume location so these files are accessible both inside the container (via an interactive shell) and outside of the container (via your filesystem). If you wish to make changes inside the container using an editor like vim, you will need to install an editor as the container is built from a lightweight image that has no default editors.

Change the following context to use hueman as the theme -

```
# Extensions
## Plugins: https://hexo.io/plugins/
## Themes: https://hexo.io/themes/
theme: hueman
```

It is also worth setting the language to en, if you're using English, I noticed that without this, my configuration defaulted to Dutch -

```
# Site
title: Hexo
subtitle:
description:
keywords:
author: John Doe
language: en
timezone:
```

After making these change, restart the Docker container -

```
$ docker restart hexo-masteringansible.com
hexo-masteringansible.com
```

Accessing http://localhost:4000, should now give you the site, with the hueman plugin enabled -
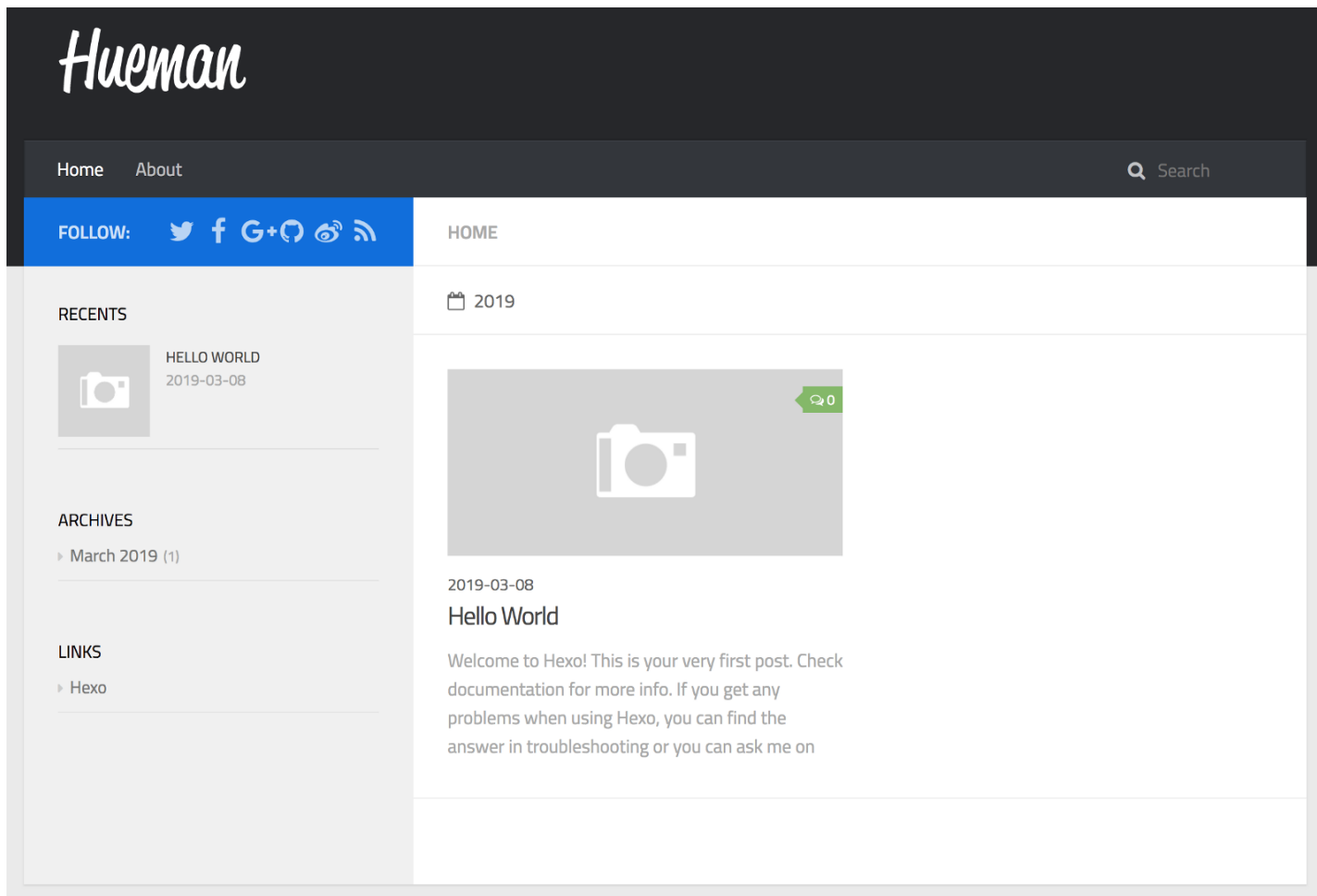
Personalising the Page

Where desired you can personalise the page. Pages/Posts can be added using the Admin interface and changes can be made to both _config.yml and themes/hueman/_config.yml for Hexo and the Hueman theme respectively.

We're not going to cover this aspect in detail but should you wish to do so before continuing, now is a good time to try out the platform.

For my own site, masteringansible.com, I performed the following changes as a starter guide.

Updated _config.yml with the following -

```
# Site
title: MasteringAnsible.com
subtitle:
description: Official website for the Mastering Ansible online course
keywords: Mastering Ansible
author: James Spurin
language: en
timezone:
```

Changed the logo in themes/hueman/source/css/images and updated themes/hueman/_config.yml to reflect my social media settings and the new logo size -

```
# Customize
customize:
 logo:
 width: 340
 height: 154
 url: images/logo-header.png
 theme_color: '#006bde'
 highlight: androidstudio
 sidebar: left # sidebar position, options: left, right
 thumbnail: true # enable posts thumbnail, options: true, false
 favicon: # path to favicon
 social_links: # for more icons, please see http://fontawesome.io/icons/#brand
 linkedin:
 facebook:
 github: https://github.com/spurin
 twitter: https://twitter.com/jamesspurin
 medium: https://medium.com/@spurin
```

If you review further in the themes/hueman/_config.yml file, there is an entry that relates to insight search. I personally like this feature and it's installation is pretty straight forward, the configuration makes reference to the following -

```
# Search
search:
 insight: true # you need to install `hexo-generator-json-content` before using Insight Search
 swiftype: # enter swiftype install key here
 baidu: false # you need to disable other search engines to use Baidu search, options: true, false
```

Create a shell within the container, and execute this npm command -

```
$ docker exec -it hexo-masteringansible.com bash

root@4e42b5c764b9:/app# npm install hexo-generator-json-content — save
npm WARN acorn-dynamic-import@4.0.0 requires a peer of acorn@6.0.0 but none is installed. You must install peer dependencies yourself.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.7 (node_modules/fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.7: wanted {"os":"darwin","arch":"any"} (current:
{"os":"linux","arch":"x64"})

+ hexo-generator-json-content@4.1.3
added 6 packages from 23 contributors and audited 6842 packages in 44.061s
found 19 vulnerabilities (6 low, 7 moderate, 5 high, 1 critical)
 run `npm audit fix` to fix them, or `npm audit` for details

 root@4e42b5c764b9:/app# exit
```

Using the admin page, I created initial posts, an about post and a purchase page .

The page, for me, now looks like the following -

Creating an SSH Deploy Key

We're going to use SSH keys to deploy our site to Github, let's create the keys, in these examples, I'm not using a passphrase. If you're familiar with SSH and wish to use a passphrase you'll need to edit the steps accordingly.

```
$ docker exec hexo-masteringansible.com ssh-keygen -t rsa -f /root/.ssh/id_rsa -q -P ""
```

Capture your public key, I've intentionally changed content here for security purposes -

```
$ docker exec hexo-masteringansible.com cat /root/.ssh/id_rsa.pub
ssh-rsa
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
root@4e42b5c764b9
```

On Github, create a repository called something.github.io

In my case, I created masteringansible.github.io -

Using the Github GUI, I created a simple index.html with the word 'test' in it. This will easily allow you to verify that the site is working in its current form, i.e. https://masteringansible.github.io

Configuring a domain name using Github

If you wish to host your site with a custom domain, in the project settings in the github repository, you can enable as follows -

GitHub Pages

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

> ✓ Your site is published at https://masteringansible.com/

Source
Your GitHub Pages site is currently being built from the `master` branch. Learn more.

[master branch ▾]

Theme Chooser
Select a theme to publish your site with a Jekyll theme. Learn more.

[Choose a theme]

Custom domain
Custom domains allow you to serve your site from a domain other than `spurin.com`. Learn more.

[masteringansible.com] [Save]

☑ **Enforce HTTPS**
HTTPS provides a layer of encryption that prevents others from snooping on or tampering with traffic to your site. When HTTPS is enforced, your site will only be served over HTTPS. Learn more.

After doing this, you're repository will consist of 2 files, the index.html previously created and a file called CNAME, this file is important and we need to factor this into our hexo configuration later. For now, the repository will look like the following -

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

spurin Create CNAME		Latest commit d3fe1f1 15 days ago
📄 CNAME	Create CNAME	15 days ago
📄 index.html	Create index.html	15 days ago

> Help people interested in this repository understand your project by adding a README. **Add a README**

Adding the Deployment Keys to Github

Whilst in the repository, we can add the deployment keys that we created -

In Settings, choose Deploy Keys -

spurin / **masteringansible.github.io**

Unwatch ▼ 1   ★ Star 0   ⑂ Fork 0

<> Code   ⊙ Issues 0   ⑃ Pull requests 0   ▥ Projects 0   ▤ Wiki   �📊 Insights   ⚙ Settings

Options

Collaborators

Branches

Webhooks

Notifications

Integrations & services

Deploy keys

Moderation

Interaction limits

Settings

Repository name

masteringansible.github.io   Rename

Features

☑ **Wikis**
GitHub Wikis is a simple way to let others contribute content. Any GitHub user can create and edit pages to use for documentation, examples, support, or anything you wish.

☑ **Restrict editing to collaborators only**
Public wikis will still be readable by everyone.

Select Add deploy key

Deploy keys

Add deploy key

There are no deploy keys for this repository
Check out our guide on deploy keys to learn more.

And paste the key we created earlier

Deploy keys / Add new

Title

```
masteringansible.com
```

Key

```
ssh-rsa
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA root@4e42b5c764b9
```

☑ **Allow write access**
Can this key be used to **push** to this repository? Deploy keys always have pull access.

Add key

If successful, you should see something similar to this -

Deploy keys   **Add deploy key**

🔑 **masteringansible.com**
       Fingerprint: `07:a3:0f:04:1e:85:a3:21:4b:4e:6b:e0:b1:97:86:8d`   **Delete**
SSH   Added on 9 Mar 2019 by **@spurin**
       Never used — Read/write

Configuring the Domain ANAME

Most modern domain name sites provide the convenience of an ANAME in the DNS configurator.

Should you wish to know more about ANAME's, see Andre Wallen's blog entry

I'm using name.com for my domain and the entry is as follows.

Edit DNS Records: masteringansible.com

Show DNS Templates   **Delete Selected Records**   ⬇ Export DNS Records (CSV)

☐	Type ⇕	Host ⇕	Answer ⇕	TTL ⇕	Prio	Actions
☐	**ANAME**	masteringansible.com	masteringansible.github.io	300	N/A	Edit Delete
						Created: 2019-02-22

Wait for DNS Propagation

DNS can take time to update, when it's ready, you should be able to see the following using the dig command in Linux/Mac environments -
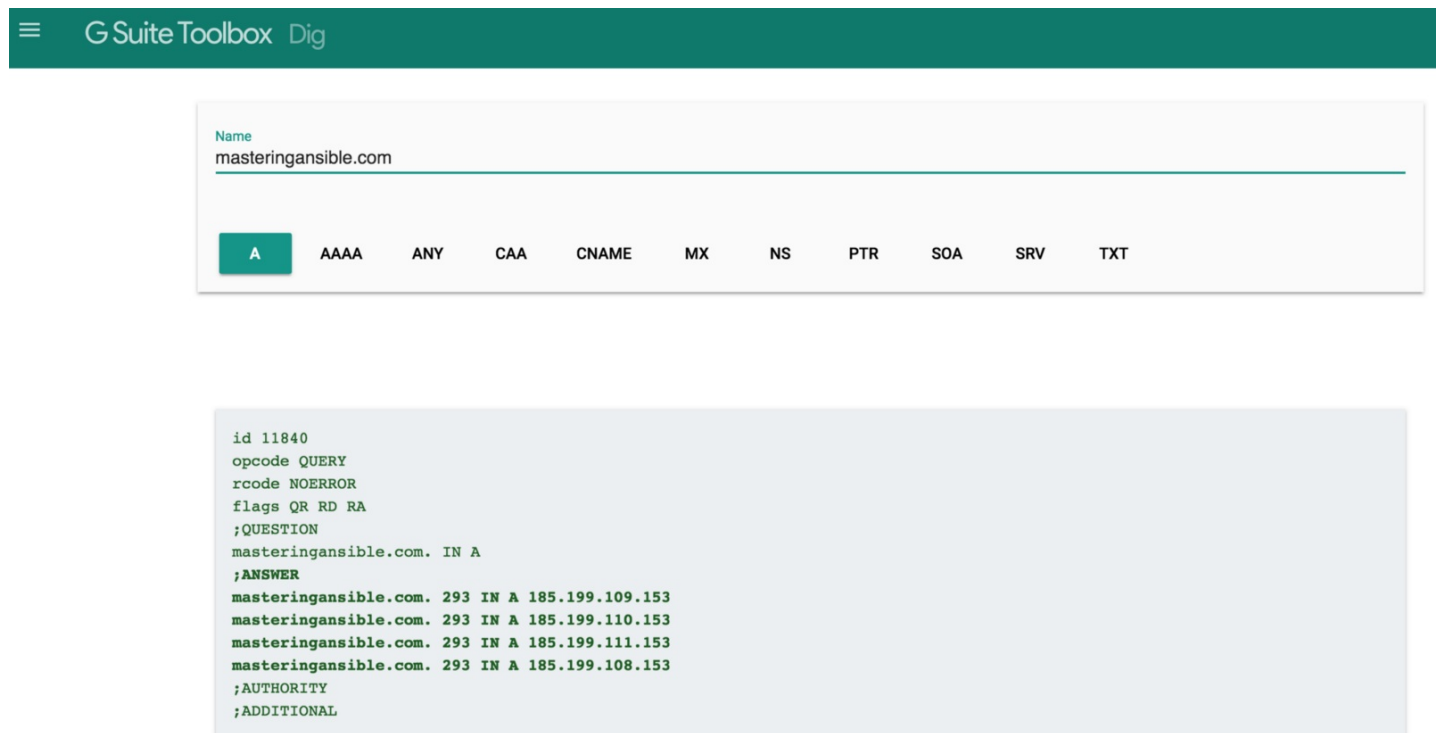
```
$ dig masteringansible.com

; <<>> DiG 9.9.7-P3 <<>> masteringansible.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 42137
;; flags: qr rd ra; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 512
;; QUESTION SECTION:
;masteringansible.com. IN A

;; ANSWER SECTION:
masteringansible.com. 300 IN A 185.199.109.153
masteringansible.com. 300 IN A 185.199.111.153
masteringansible.com. 300 IN A 185.199.108.153
masteringansible.com. 300 IN A 185.199.110.153

;; Query time: 19 msec
;; SERVER: 194.168.4.100#53(194.168.4.100)
;; WHEN: Sat Mar 09 18:03:42 GMT 2019
;; MSG SIZE rcvd: 113
```

Or, if you're on a Windows host, the equivalent via the

If you now browse to your domain with https://domain.com, you should be presented with the word 'test', n.b. it can take time for github to generate https certificates so if you encounter an issue here, check settings on your github repository.

Configure CNAME in Hexo and Deploy Settings

Earlier on, when we set a custom CNAME in Github, it created a file called CNAME in the repository, we need to ensure that this file is in our source on Hexo, otherwise, this will be removed during deployment, breaking the cname configuration for our site. Create an equivalent file in the source directory -

```
$ docker exec -it hexo-masteringansible.com bash
root@4e42b5c764b9:/app# echo masteringansible.com > source/CNAME
exit
```

Edit _config.yml and update the deployment section with your own github settings -

Deployment
Docs: https://hexo.io/docs/deployment.html
deploy:
 type: git
 repo: git@github.com:spurin/masteringansible.github.io.git
 branch: master
 message: "Site updated: {{ now('YYYY-MM-DD HH:mm:ss') }}"

We need hexo-deployer-git installed, to use git to push our site to github, install as follows -

$ docker exec hexo-masteringansible.com npm install hexo-deployer-git — save
npm WARN acorn-dynamic-import@4.0.0 requires a peer of acorn@6.0.0 but none is installed. You must install peer dependencies yourself.
npm WARN babel-eslint@10.0.1 requires a peer of eslint@>= 4.12.1 but none is installed. You must install peer dependencies yourself.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.7 (node_modules/fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.7: wanted {"os":"darwin","arch":"any"} (current: {"os":"linux","arch":"x64"})

+ hexo-deployer-git@1.0.0
added 59 packages from 48 contributors and audited 9096 packages in 65.554s
found 19 vulnerabilities (6 low, 7 moderate, 5 high, 1 critical)
 run `npm audit fix` to fix them, or `npm audit` for details

Configure your git username and git email address -

$ docker exec hexo-masteringansible.com git config — global user.email "james@spurin.com"
$ docker exec hexo-masteringansible.com git config — global user.name "James Spurin"

Generating content

In preparation for the launch of the site, we can request that Hexo generates the content for us

$ docker exec hexo-masteringansible.com hexo generate
INFO Start processing
INFO Files loaded in 1.87 s
INFO Generated: content.json
INFO Generated: index.html
INFO Generated: archives/index.html
INFO Generated: archives/2019/03/index.html
INFO Generated: archives/2019/index.html
INFO Generated: purchase/index.html
INFO Generated: categories/Purchase/index.html
INFO Generated: about/index.html
INFO Generated: 2019/03/09/Purchase/index.html
INFO Generated: 2019/03/09/About-Mastering-Ansible/index.html
INFO Generated: css/images/opacity-10.png
INFO Generated: css/images/logo-header.orig.png
INFO Generated: CNAME
INFO Generated: css/images/thumb-default-small.png
INFO Generated: css/images/thumb-default.png
INFO Generated: css/images/logo-header.png
INFO Generated: css/images/s-left.png
INFO Generated: libs/lightgallery/fonts/lg.eot
INFO Generated: libs/source-code-pro/fonts/mrl8jkM18OlOQN8JLgasD9V_2ngZ8dMf8fLgjYEouxg.woff2
INFO Generated: libs/lightgallery/css/lg-fb-comment-box.css.map
INFO Generated: libs/source-code-pro/fonts/mrl8jkM18OlOQN8JLgasDy2Q8seG17bfDXYR_jUsrzg.woff2
INFO Generated: libs/lightgallery/fonts/lg.svg
INFO Generated: libs/lightgallery/fonts/lg.ttf
INFO Generated: libs/lightgallery/img/loading.gif
INFO Generated: libs/lightgallery/img/video-play.png
INFO Generated: libs/lightgallery/css/lightgallery.css.map
INFO Generated: libs/lightgallery/img/vimeo-play.png
INFO Generated: libs/lightgallery/fonts/lg.woff
INFO Generated: libs/lightgallery/css/lg-transitions.css.map
INFO Generated: libs/titillium-web/fonts/anMUvcNT0H1YN4FII8wpr_SNRT0fZ5CX-AqRkMYgJJo.woff2
INFO Generated: libs/titillium-web/fonts/7XUFZ5tgS-tD6QamInJTcSo_WB_cotcEMUw1LsIE8mM.woff2
INFO Generated: libs/lightgallery/img/youtube-play.png
INFO Generated: libs/titillium-web/fonts/anMUvcNT0H1YN4FII8wpr46gJz9aNFrmnwBdd69aqzY.woff2
INFO Generated: libs/titillium-web/fonts/anMUvcNT0H1YN4FII8wpr9INifKjd1RJ3NxxEi9Cy2w.woff2
INFO Generated: libs/titillium-web/fonts/7XUFZ5tgS-tD6QamInJTcZSnX671uNZIV63UdXh3Mg0.woff2
INFO Generated: libs/titillium-web/fonts/anMUvcNT0H1YN4FII8wpr4–67659ICLY8bMrYhtePPA.woff2
INFO Generated: images/pasted-0.png
INFO Generated: js/main.js
INFO Generated: libs/justified-gallery/justifiedGallery.min.css

```
INFO Generated: libs/source-code-pro/styles.css
INFO Generated: libs/font-awesome/fonts/fontawesome-webfont.eot
INFO Generated: libs/font-awesome/fonts/FontAwesome.otf
INFO Generated: css/style.css
INFO Generated: libs/titillium-web/styles.css
INFO Generated: libs/font-awesome/fonts/fontawesome-webfont.woff2
INFO Generated: libs/font-awesome/fonts/fontawesome-webfont.woff
INFO Generated: libs/lightgallery/css/lg-fb-comment-box.css
INFO Generated: libs/lightgallery/js/lg-hash.min.js
INFO Generated: libs/lightgallery/js/lg-autoplay.min.js
INFO Generated: libs/lightgallery/css/lg-fb-comment-box.min.css
INFO Generated: libs/lightgallery/js/lg-autoplay.js
INFO Generated: libs/lightgallery/js/lg-fullscreen.min.js
INFO Generated: libs/lightgallery/js/lg-pager.js
INFO Generated: libs/lightgallery/js/lg-fullscreen.js
INFO Generated: libs/lightgallery/js/lg-hash.js
INFO Generated: libs/lightgallery/js/lg-share.min.js
INFO Generated: libs/lightgallery/js/lg-share.js
INFO Generated: libs/lightgallery/js/lg-pager.min.js
INFO Generated: libs/lightgallery/js/lg-video.min.js
INFO Generated: js/insight.js
INFO Generated: libs/font-awesome/fonts/fontawesome-webfont.ttf
INFO Generated: libs/lightgallery/js/lg-thumbnail.min.js
INFO Generated: libs/justified-gallery/jquery.justifiedGallery.min.js
INFO Generated: libs/lightgallery/js/lg-video.js
INFO Generated: libs/lightgallery/js/lg-zoom.min.js
INFO Generated: libs/lightgallery/js/lg-thumbnail.js
INFO Generated: libs/lightgallery/js/lg-zoom.js
INFO Generated: images/pasted-3.png
INFO Generated: images/pasted-4.png
INFO Generated: images/pasted-2.png
INFO Generated: libs/lightgallery/css/lightgallery.min.css
INFO Generated: libs/lightgallery/css/lightgallery.css
INFO Generated: libs/lightgallery/js/lightgallery.min.js
INFO Generated: libs/font-awesome/css/font-awesome.min.css
INFO Generated: libs/font-awesome/css/font-awesome.css
INFO Generated: libs/lightgallery/css/lg-transitions.min.css
INFO Generated: libs/lightgallery/css/lg-transitions.css
INFO Generated: libs/lightgallery/js/lightgallery.js
INFO Generated: libs/font-awesome/fonts/fontawesome-webfont.svg
INFO Generated: libs/jquery/3.3.1/jquery.min.js
INFO Generated: images/pasted-1.png
INFO 81 files generated in 3.13 s
```

Finally, Deploy the site

```
$ docker exec -it hexo-masteringansible.com hexo deploy
INFO Deploying: git
INFO Clearing .deploy_git folder...
INFO Copying files from public folder...
INFO Copying files from extend dirs...
[master (root-commit) 37b974f] Site updated: 2019–03–09 18:26:05
 81 files changed, 15456 insertions(+)
 create mode 100644 2019/03/09/About-Mastering-Ansible/index.html
 create mode 100644 2019/03/09/Purchase/index.html
 create mode 100644 about/index.html
 create mode 100644 archives/2019/03/index.html
 create mode 100644 archives/2019/index.html
 create mode 100644 archives/index.html
 create mode 100644 categories/Purchase/index.html
 create mode 100644 content.json
 create mode 100644 css/images/logo-header.orig.png
 create mode 100644 css/images/logo-header.png
 create mode 100644 css/images/opacity-10.png
 create mode 100644 css/images/s-left.png
 create mode 100644 css/images/thumb-default-small.png
 create mode 100644 css/images/thumb-default.png
 create mode 100644 css/style.css
 create mode 100644 CNAME
 create mode 100644 images/pasted-0.png
 create mode 100644 images/pasted-1.png
 create mode 100644 images/pasted-2.png
```

```
 create mode 100644 images/pasted-3.png
 create mode 100644 images/pasted-4.png
 create mode 100644 index.html
 create mode 100644 js/insight.js
 create mode 100644 js/main.js
 create mode 100644 libs/font-awesome/css/font-awesome.css
 create mode 100644 libs/font-awesome/css/font-awesome.min.css
 create mode 100644 libs/font-awesome/fonts/FontAwesome.otf
 create mode 100644 libs/font-awesome/fonts/fontawesome-webfont.eot
 create mode 100644 libs/font-awesome/fonts/fontawesome-webfont.svg
 create mode 100644 libs/font-awesome/fonts/fontawesome-webfont.ttf
 create mode 100644 libs/font-awesome/fonts/fontawesome-webfont.woff
 create mode 100644 libs/font-awesome/fonts/fontawesome-webfont.woff2
 create mode 100644 libs/jquery/3.3.1/jquery.min.js
 create mode 100644 libs/justified-gallery/jquery.justifiedGallery.min.js
 create mode 100644 libs/justified-gallery/justifiedGallery.min.css
 create mode 100644 libs/lightgallery/css/lg-fb-comment-box.css
 create mode 100644 libs/lightgallery/css/lg-fb-comment-box.css.map
 create mode 100644 libs/lightgallery/css/lg-fb-comment-box.min.css
 create mode 100644 libs/lightgallery/css/lg-transitions.css
 create mode 100644 libs/lightgallery/css/lg-transitions.css.map
 create mode 100644 libs/lightgallery/css/lg-transitions.min.css
 create mode 100644 libs/lightgallery/css/lightgallery.css
 create mode 100644 libs/lightgallery/css/lightgallery.css.map
 create mode 100644 libs/lightgallery/css/lightgallery.min.css
 create mode 100644 libs/lightgallery/fonts/lg.eot
 create mode 100644 libs/lightgallery/fonts/lg.svg
 create mode 100644 libs/lightgallery/fonts/lg.ttf
 create mode 100644 libs/lightgallery/fonts/lg.woff
 create mode 100644 libs/lightgallery/img/loading.gif
 create mode 100644 libs/lightgallery/img/video-play.png
 create mode 100644 libs/lightgallery/img/vimeo-play.png
 create mode 100644 libs/lightgallery/img/youtube-play.png
 create mode 100644 libs/lightgallery/js/lg-autoplay.js
 create mode 100644 libs/lightgallery/js/lg-autoplay.min.js
 create mode 100644 libs/lightgallery/js/lg-fullscreen.js
 create mode 100644 libs/lightgallery/js/lg-fullscreen.min.js
 create mode 100644 libs/lightgallery/js/lg-hash.js
 create mode 100644 libs/lightgallery/js/lg-hash.min.js
 create mode 100644 libs/lightgallery/js/lg-pager.js
 create mode 100644 libs/lightgallery/js/lg-pager.min.js
 create mode 100644 libs/lightgallery/js/lg-share.js
 create mode 100644 libs/lightgallery/js/lg-share.min.js
 create mode 100644 libs/lightgallery/js/lg-thumbnail.js
 create mode 100644 libs/lightgallery/js/lg-thumbnail.min.js
 create mode 100644 libs/lightgallery/js/lg-video.js
 create mode 100644 libs/lightgallery/js/lg-video.min.js
 create mode 100644 libs/lightgallery/js/lg-zoom.js
 create mode 100644 libs/lightgallery/js/lg-zoom.min.js
 create mode 100644 libs/lightgallery/js/lightgallery.js
 create mode 100644 libs/lightgallery/js/lightgallery.min.js
 create mode 100644 libs/source-code-pro/fonts/mrl8jkM18OlOQN8JLgasD9V_2ngZ8dMf8fLgjYEouxg.woff2
 create mode 100644 libs/source-code-pro/fonts/mrl8jkM18OlOQN8JLgasDy2Q8seG17bfDXYR_jUsrzg.woff2
 create mode 100644 libs/source-code-pro/styles.css
 create mode 100644 libs/titillium-web/fonts/7XUFZ5tgS-tD6QamInJTcSo_WB_cotcEMUw1LsIE8mM.woff2
 create mode 100644 libs/titillium-web/fonts/7XUFZ5tgS-tD6QamInJTcZSnX671uNZIV63UdXh3Mg0.woff2
 create mode 100644 libs/titillium-web/fonts/anMUvcNT0H1YN4FII8wpr4–67659ICLY8bMrYhtePPA.woff2
 create mode 100644 libs/titillium-web/fonts/anMUvcNT0H1YN4FII8wpr46gJz9aNFrmnwBdd69aqzY.woff2
 create mode 100644 libs/titillium-web/fonts/anMUvcNT0H1YN4FII8wpr9INifKjd1RJ3NxxEi9Cy2w.woff2
 create mode 100644 libs/titillium-web/fonts/anMUvcNT0H1YN4FII8wpr_SNRT0fZ5CX-AqRkMYgJJo.woff2
 create mode 100644 libs/titillium-web/styles.css
 create mode 100644 purchase/index.html
The authenticity of host 'github.com (192.30.253.113)' can't be established.
RSA key fingerprint is SHA256:nThbg6kXUpJWGl7E1IGOCspRomTxdCARLviKw6E5SY8.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'github.com,192.30.253.113' (RSA) to the list of known hosts.
Counting objects: 114, done.
Delta compression using up to 2 threads.
Compressing objects: 100% (103/103), done.
Writing objects: 100% (114/114), 2.00 MiB | 869.00 KiB/s, done.
Total 114 (delta 11), reused 0 (delta 0)
```

remote: Resolving deltas: 100% (11/11), done.
To github.com:spurin/masteringansible.github.io.git
 + d3fe1f1…37b974f HEAD -> master (forced update)
Branch master set up to track remote branch master from git@github.com:spurin/masteringansible.github.io.git.
INFO Deploy done: git

At this point, you should be able to successfully navigate to your site with https://domain.com and if so, give yourself a pat on the back :-)

Future Changes

From this point forward, you can quite simply use the local Hexo-Admin interface for updates, and when ready, push changes to your live site with a one liner as follows -

$ docker exec hexo-masteringansible.com bash -c 'hexo generate && hexo deploy'

Tagging and saving your current image, and future images

All of the changes that you've made to the Docker image that involved command execution outside of /app, would have resulted in additional layers to that of the original spurin/hexo image that you downloaded.

Whilst our /app data is safe inside it's own volume, we may wish to save our post configuration changes of the image.

If we look at the running instances -

$ docker ps -a
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
4e42b5c764b9 spurin/hexo "/bin/sh -c 'if [\"$…" 26 hours ago Up 2 hours 0.0.0.0:4000->4000/tcp hexo-masteringansible.com

My container has an id of 4e42b5c764b9, we'll export this container allowing us to reload it in the future, should we have a requirement -

$ docker export 4e42b5c764b9 -o /Users/james/Dropbox/James/Application\
Folders/docker/image_backups/spurin__hexo__post_configuration_masteringansible.com.tar

This post, summarises different technologies with a desired outcome of a working site/blog. Hopefully by the end of it, you've got a working site and/or have learnt something new. Comments and feedback are very welcome. Thanks — James Spurin