Static Site Generation

Who needs a database anyway?

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What is a SSG?

- A static site generator, often abbreviated as SSG, is a tool that transforms content from one format, such as Markdown or AsciiDoc, into another format, usually HTML, and lays out pages so that the site's look and feel is consistent across all pages. Static sites can be deployed to any web server.

  - http://nanoc.ws/about

What is Special about Static Sites

- Nothing
- They are typically a collection of HTML, CSS and probably a little javascript magic to make it user friendly

What are the benefits?

- No database

- Nothing dynamically generated

- Fast

- Reasonably secure

- Previewable

- Versionable

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What are the Disadvantages?

- Static

- Posts have to be uploaded

- Site has to be managed without built-in tools

- No database

- Little in the way of fancy add-ons

So why would I want one?

- You might need to set up a small site for a specific function

- You may need to make available a collection of documents and you already have them in a convertible format (Markdown comes to mind)

- Other cases?

Difficulty to Setup

- Typically - not very

- If you have any command-line experience and you have the appropriate toolkit, this is pretty easy to do

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Some SSGs

- Pelican
  - python
- Sculpin
  - php
- MetalSmith
  - node.js

A sculpin is a pretty ugly fish

INSTALLING SCULPIN

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But first, a picture of the fish

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Why pick Sculpin?

- A piece of software named after a fish appealed to me for the demo

- Sculpin are native to the North Atlantic and I have caught them when fishing

- The spines are nasty

- Given some peoples conception of PHP, ugly and nasty seem to be their commentary

- Availability of a Q&D demo

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Getting started

- In order to keep this quick, I'm going to use a digitalocean droplet as my source machine

- The target will also be a digitalocean droplet with apache.

- I'm also going to use the prebuilt sculpin image rather than compile it

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On your source documentation host

- Download and install Sculpin

```
$ curl -O https://download.sculpin.io/\
  sculpin.phar
$ chmod +x sculpin.phar
$ mv sculpin.phar ~/bin/sculpin
```

Yes, I am aware this is not a secure practice, this is for the Q&D demo

This example comes from: https://sculpin.io/getstarted/

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Continuing the install...

- Download and Install a Starter Kit

```
$ cd ~
$ git clone https://github.com/\
  sculpin/sculpin-blog-skeleton.git \
  myblog
$ cd myblog
$ sculpin install
```
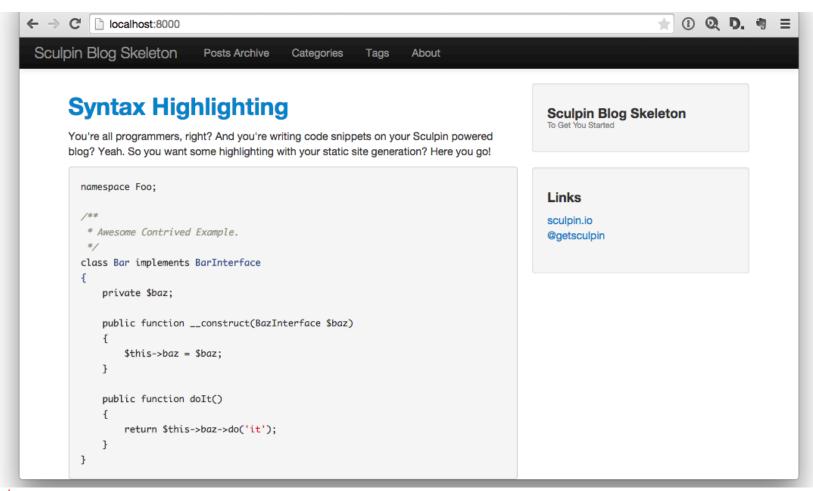
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Starting a local test

- Run Sculpin

```
sculpin generate --watch --server
```

- This starts a server on localhost:8000

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Test Page

Add a page

- Add some additional content to Sculpin

```
$ cd ~/myblog
$ cd source
$ cd _posts
$ touch 2020-01-07-time-travel.md
```

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Add this to the file we created

```
---
title: Time travel
tags:
    - future
    - time
categories:
    - time
---

# Hello world.

I am in the future.

*Markdown is cool.*

**So is twig, because it knows this page's name is:
{{ page.title }}**
```
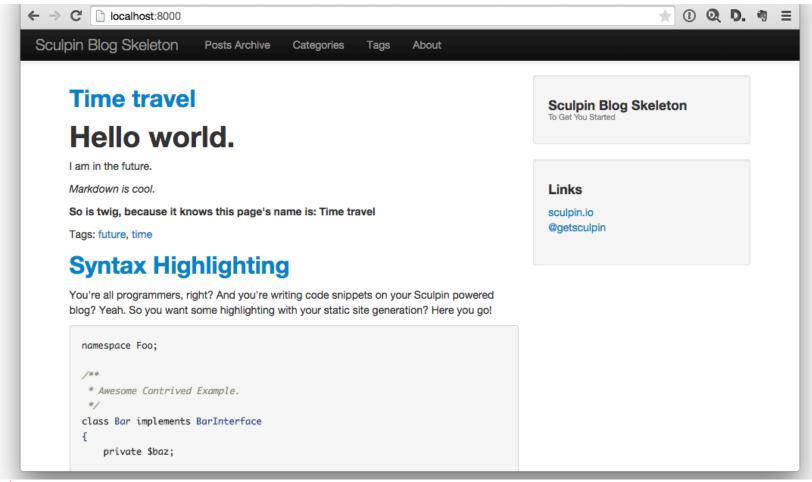
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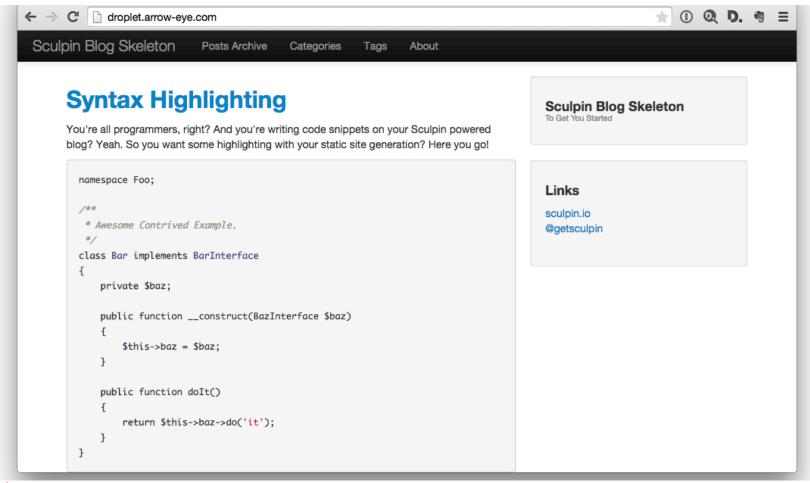Linux Users Group

Reload the browser…

Publish to a real webserver

- Make Sculpin generate the production ready site:

```
$ cd myblog
$ sculpin generate --env=prod
$ rsync -update -raz -progress\
  output_prod/ \
  user@example.com:public_html
```

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Load the Production Site

Creating a site from a few static files

DEMO

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Resources

- http://superdevresources.com/static-site-generators-2015/
- http://mashable.com/2014/08/28/static-website-generators/
- https://staticsitegenerators.net/
- Sculpin photo
  - https://newfoundsander.wordpress.com/2013/06/26/at-the-petty-harbour-mini-aquarium/
- Demo:
  - https://sculpin.io/getstarted/
- Digital Ocean – play with droplets, get a $10.00 credit
  - https://www.digitalocean.com/?refcode=89da7ab534fb

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