

The Secrets of the Fullstack Ninja

Part A - The Client Side



A man with short brown hair and blue eyes is looking directly at the camera. He is wearing a yellow t-shirt. In his right hand, he holds a large, ornate blue sword. The sword has a hilt decorated with a lightning bolt and a dragon's head. The blade is long and pointed. The background is a dense forest with sunlight filtering through the trees.

Author
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Prerequisites

- ✓ node + nPM
- ✓ git + github account
- ✓ Ruby + SASS + COMPASS
- ✓ Ide / Text editor
- ✓ Core JavaScript + HTML + CSS

Purpose

- ✓ Adopt modern web development workflow and stack, in practice those used in LÉVI.
- ✓ Set a fundamental understanding of Backbone & Marionette

The Means

Build a SPA Blog App

SESSION I



DEVOP - Setting Up

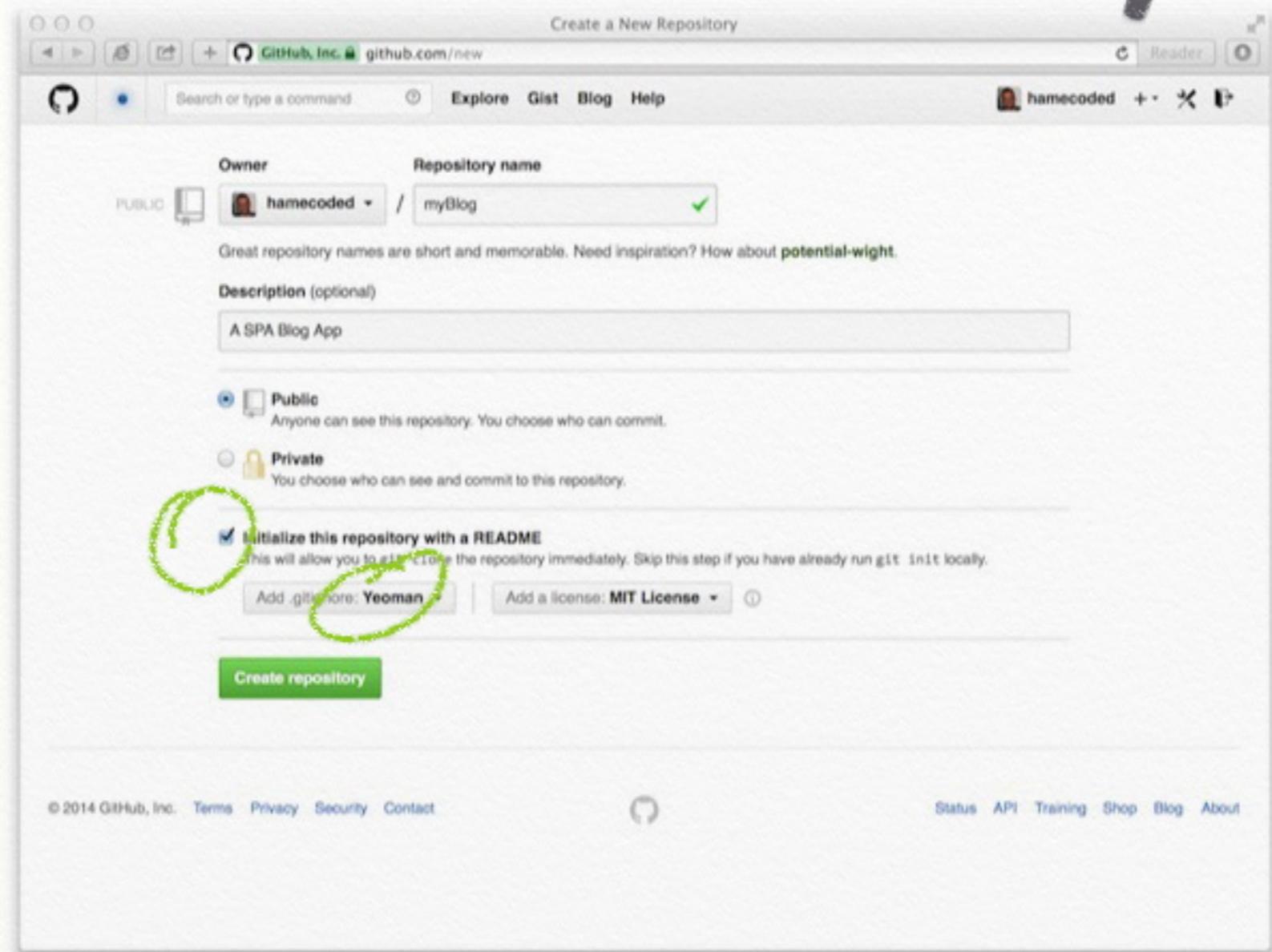
Web Application DevOp



Git NPM Grunt Bower Node



Create a github repository



git npm server grunt bower
create clone push

Clone Locally

```
→ workspace git clone git@github.com:hamecoded/myBlog.git
Cloning into 'myBlog'...
remote: Counting objects: 5, done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 5 (delta 0), reused 0 (delta 0)
Receiving objects: 100% (5/5), done.
Checking connectivity... done.
→ workspace cd myBlog
→ myBlog git:(master) |
```

▼ myBlog
 .gitignore
 LICENSE
 README.md

git npm server grunt bower
create clone push

Commit & push



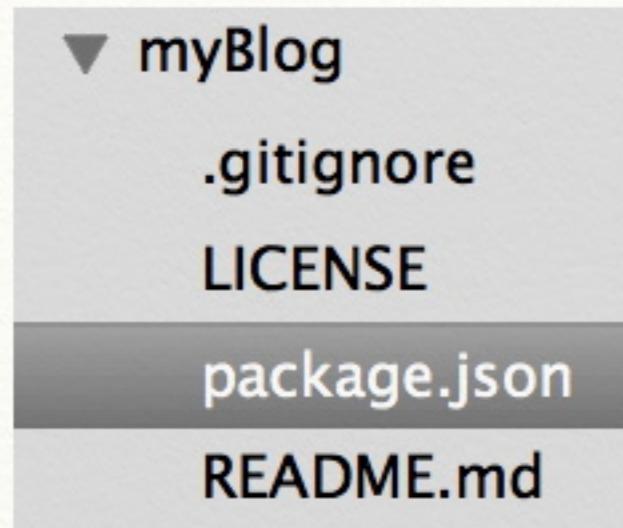
.gitignore — myBlog *

```
1 node_modules  
2 bower_components  
3 .sass-cache  
4 .DS_Store  
5 .idea  
6  
7 *.log  
8 build/modify gitignore  
9 dist/  
10  
11
```

```
→ myBlog git:(master) git add .  
→ myBlog git:(master) git commit -m "modify gitignore"  
[master 7f3abd2] modify gitignore  
 1 file changed, 11 insertions(+), 2 deletions(-)  
→ myBlog git:(master) git push origin master  
Counting objects: 5, done.  
Delta compression using up to 8 threads.  
Compressing objects: 100% (3/3), done.  
Writing objects: 100% (3/3), 390 bytes | 0 bytes/s, done.  
Total 3 (delta 0), reused 0 (delta 0)  
To git@github.com:hamecoded/myBlog.git  
 15228c0..7f3abd2 master -> master  
→ myBlog git:(master)
```

git npm server grunt bower
create clone push

Initialize NPM Project



git npm server grunt
init

```
→ myBlog git:(master) npm init
This utility will walk you through creating a package.json file.
It only covers the most common items, and tries to guess sane defaults.

See `npm help json` for definitive documentation on these fields
and exactly what they do.

Use `npm install <pkg> --save` afterwards to install a package and
save it as a dependency in the package.json file.

Press ^C at any time to quit.
name: (myBlog)
version: (0.0.0)
description: A Blog App
entry point: (index.js)
test command:
git repository: (https://github.com/hamecoded/myBlog.git)
keywords: blog spa
author: Oded Sagir
license: (ISC) MIT
About to write to /Users/odeds/workspace/myBlog/package.json:

{
  "name": "myBlog",
  "version": "0.0.0",
  "description": "A Blog App",
  "main": "index.js",
  "scripts": {
    "test": "echo \\\"Error: no test specified\\\" && exit 1"
  },
  "repository": {
    "type": "git",
    "url": "https://github.com/hamecoded/myBlog.git"
  },
  "keywords": [
    "blog",
    "spa"
  ],
  "author": "Oded Sagir",
  "license": "MIT",
  "bugs": {
    "url": "https://github.com/hamecoded/myBlog/issues"
  },
  "homepage": "https://github.com/hamecoded/myBlog"
}

Is this ok? (yes) yes ✓
```

✓ file content

Installing our first node module

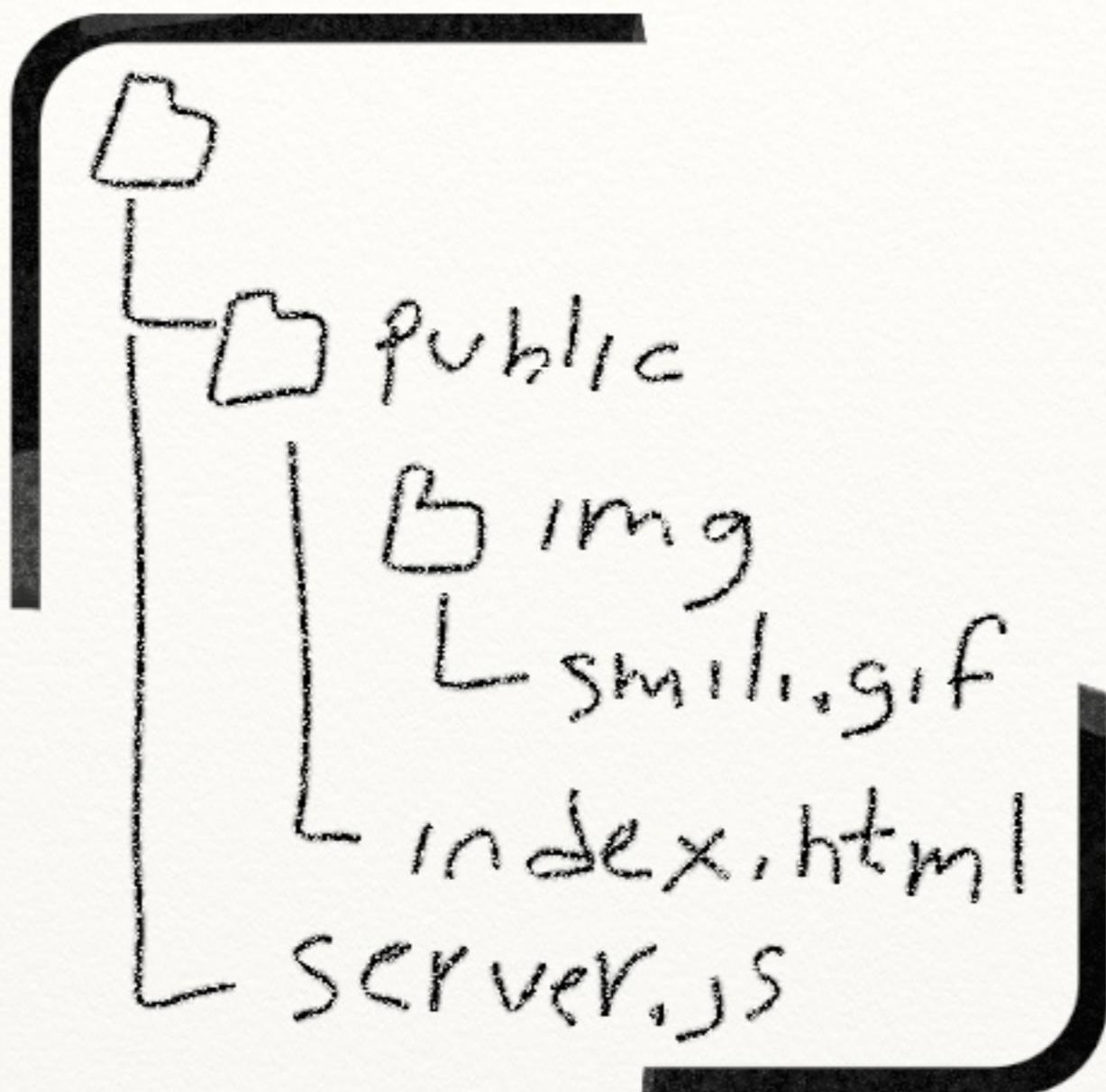
```
→ npm install express --save
```

will add express
under node_modules

module name **save to package son**

git npm server grunt bower
init install

Server fs Structure



git npm **server** grunt bower
fs SPA run

Not just a server but a SPA server

```
server.js
```

```
1  /**
2  * An express server to serve a SPA app
3  * we use express to simplify handling of static files
4  * whilst directing all paths to main index.html
5  * for handling browser refresh
6  * a more complicate solution using standard modules can be found here:
7  * https://coderwall.com/p/b2kmkg
8  * an interesting discussion:
9  * http://stackoverflow.com/questions/7268033/basic-static-file-server-in-nodejs
10 */
11 var express = require('express'),
12     app = express();
13
14 app.use(express.static(__dirname + '/public'));
15
16 app.get('*', function (req, res) {
17   res.sendFile(__dirname + '/public/index.html');
18 });
19
20 var server = app.listen(process.env.PORT || 8088, function() {
21   console.log('Listening on port %d', server.address().port);
22 });
```

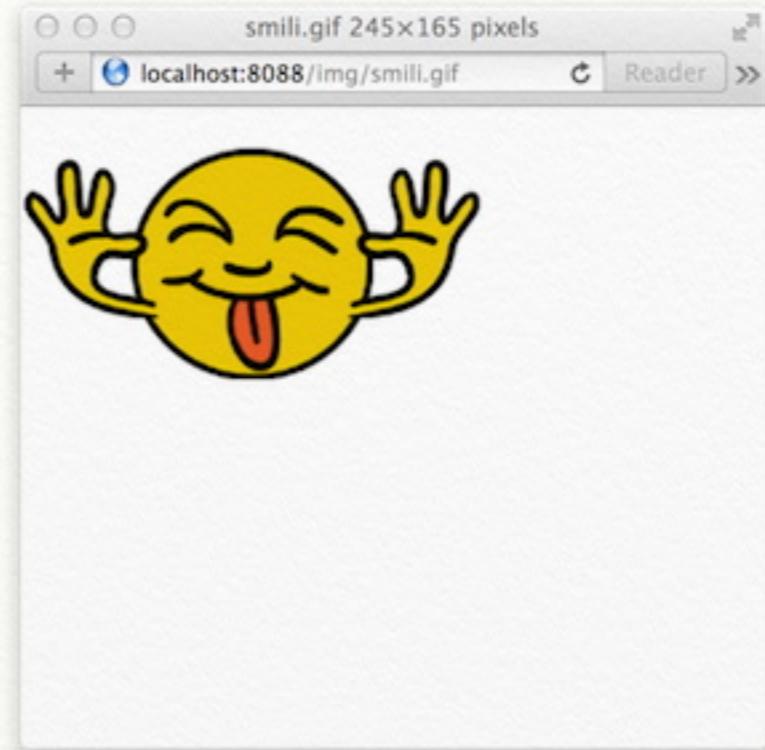
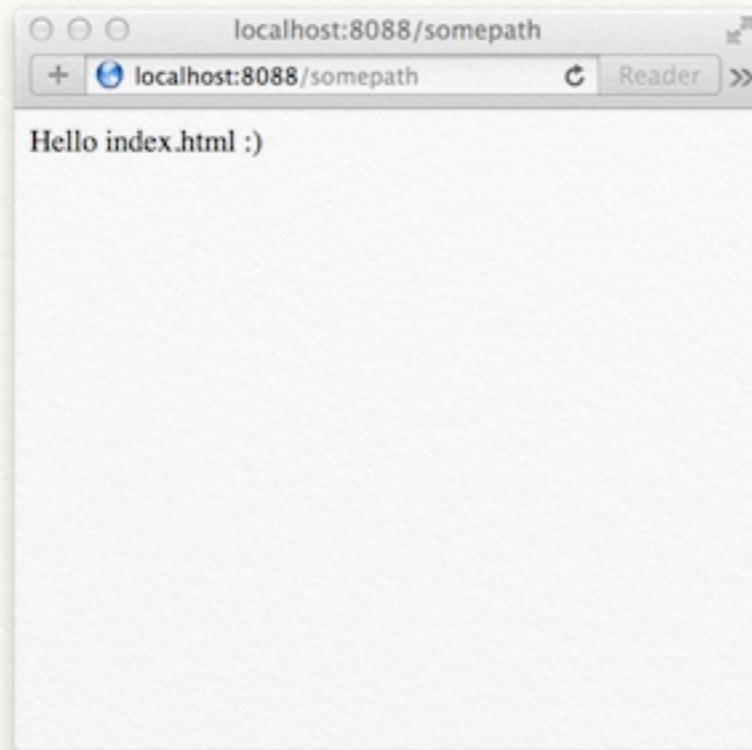
will handle assets

a route not found will respond with index.html

git npm server grunt bower
fs SPA run

Test & Run your Server

```
→ myBlog git:(master) ✘ node server.js  
Listening on port 8088
```



git npm **server** grunt bower
fs SPA **run**

It's Training Time



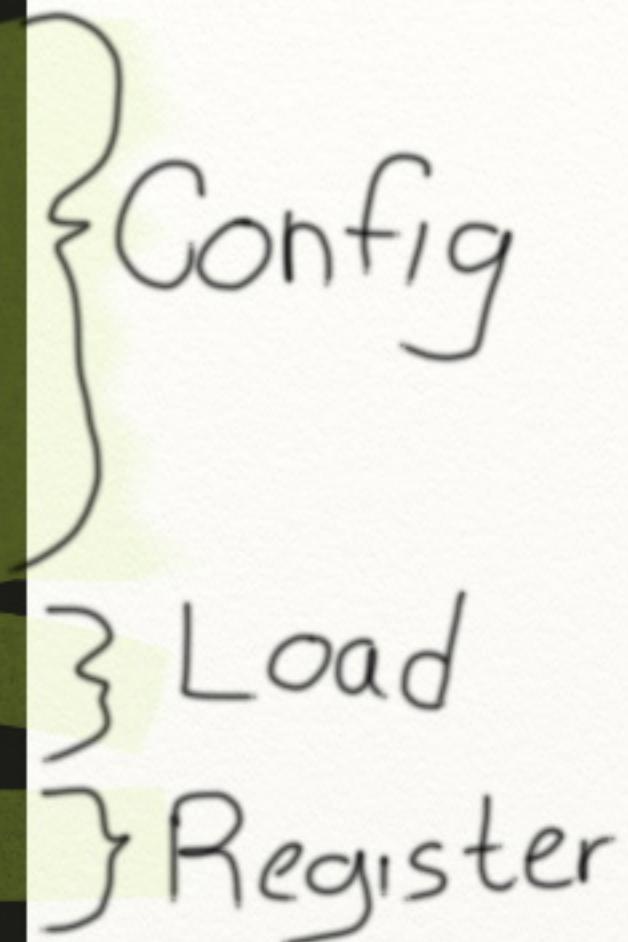


GRUNT

git npm server **grunt** bower

Gruntfile Structure

```
1 module.exports = function(grunt) {
2
3     // Project configuration.
4     grunt.initConfig({
5         // Metadata.
6         pkg: grunt.file.readJSON('package.json'),
7         // Task configuration.
8         qunit: {
9             files: ['test/**/*.{html}']
10        }
11    });
12
13    // These plugins provide necessary tasks.
14    grunt.loadNpmTasks('grunt-contrib-qunit');
15
16    // Default task.
17    grunt.registerTask('default', ['qunit']);
18
19};
```



git npm server **grunt bower**
Gruntfile tasks flow



Grunt Tasks

```
"grunt-contrib-clean": "~0.5.0",
"grunt-contrib-compass": "^0.9.0",
"grunt-contrib-copy": "^0.5.0",
"grunt-contrib-cssmin": "^0.10.0",
"grunt-contrib-jshint": "~0.10.0",
"grunt-contrib-requirejs": "^0.4.4",
"grunt-contrib-uglify": "~0.5.0",
"grunt-contrib-watch": "^0.6.1",
"grunt-preprocess": "^4.0.0",
"grunt-replace": "~0.7.8",
```

git npm server **grunt bower**
Gruntfile **tasks** flow



Building a Release

clean → compass → css minify → lint js



omit
html
fragments

cache
bust

html
replace
vars

requirec

consolidate js

framents

obfuscate
js

add
banner
to srcts

package

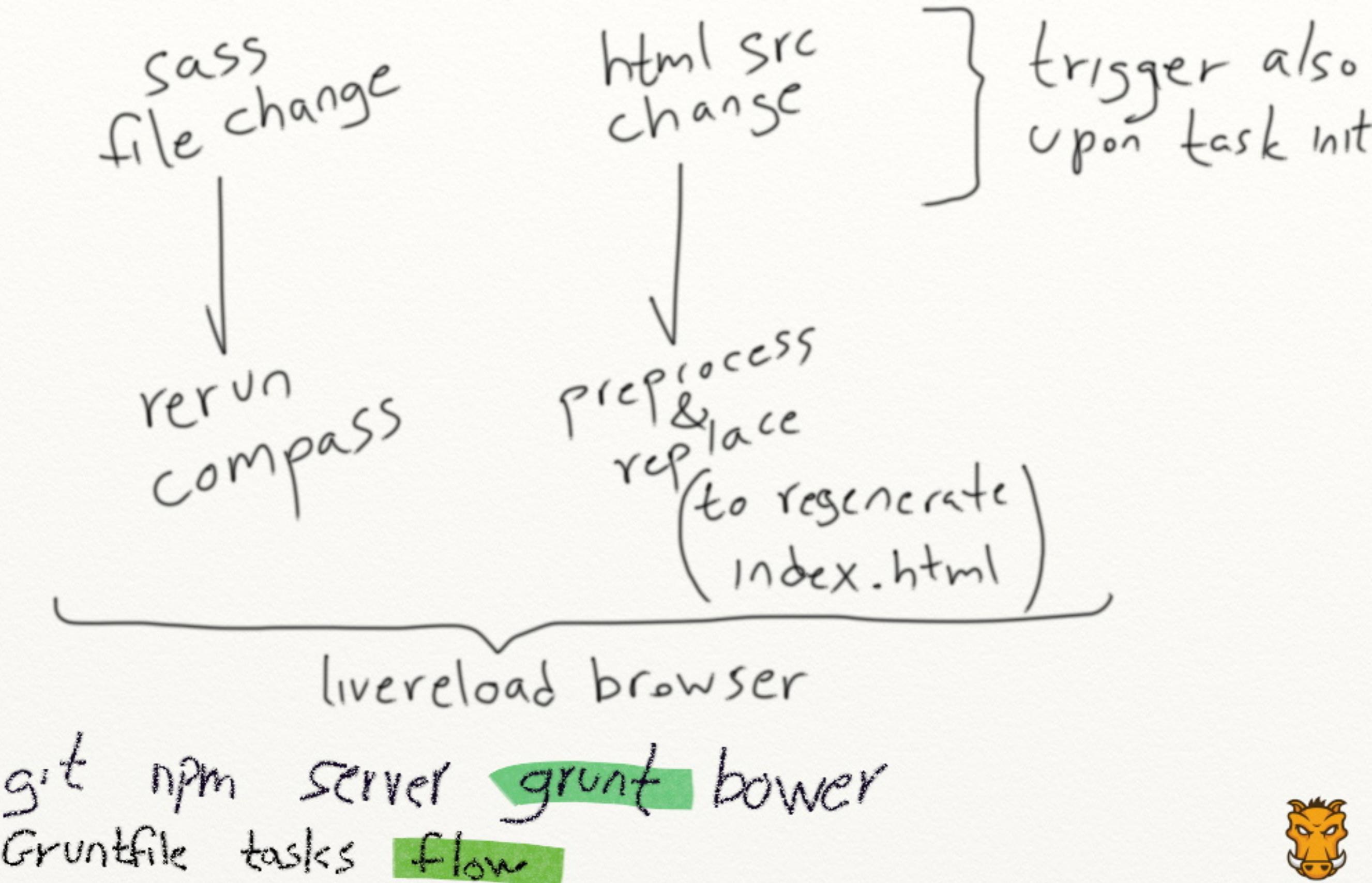
clean



git npm server **grunt bower**
Gruntfile tasks **flow**



Grunt Watch



SESSION II



Setting Up The Client Libraries

Web Application Infra Soup

