Grunt/Gulp/Yeoman Intro for Client Side Code

How do developers develop?

Developers like to develop on their own computers or local machines. That's why you'll sometimes hear comments like "Well, it works on my machine!" when a developer is confronted with a problem in either a test environment or a production environment and the developer can't reproduce that same problem on their local machine.

The reasons for developing locally are:

- They have a complete control of the environment
- It's the fastest feedback mechanism there is

How do developers deploy their code to an actual production server?

There are really only two conceptual options: either doing it manually (copying, pasting, uploading files, etc. to the server) or automating the process.

This is where task automators come in handy. They help by recording the task once and repeating it as often as needed to come out with the exact same output every time, no matter what the environment is (to a certain extent, of course).

Some of the most popular task automators for front-end development are Grunt and Gulp.

They require some kind of initial setup so everything works. We will look into them in general, but before we do…

Who in his right mind would attempt to make the initial setup manually?

I know I wouldn't. And that's why we're exploring Yeoman first. :)

Intro to Yeoman

Yeoman is "THE WEB'S SCAFFOLDING TOOL FOR MODERN WEBAPPS", according to their website. Simply put, Yeoman is a tool that generates a seed project for you, sometimes based on parameters.

Install Node.js and NPM

Resource: http://blog.teamtreehouse.com/install-node-js-npm-mac

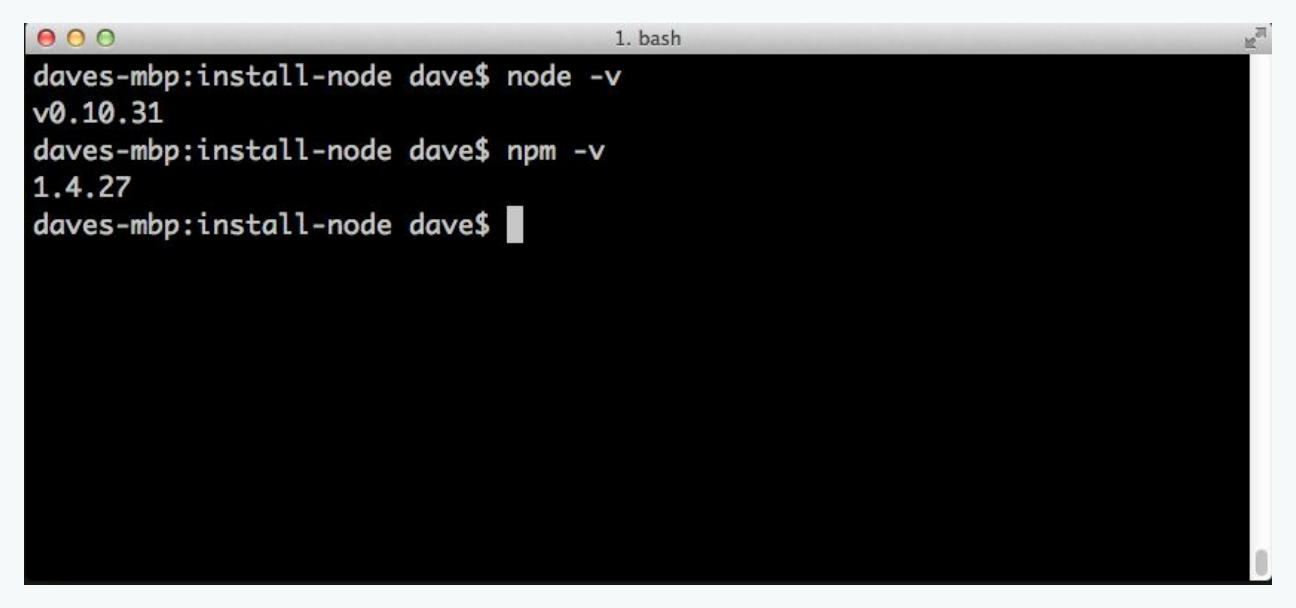
Installing Node.js and NPM is pretty straightforward using Homebrew. Homebrew handles downloading, unpacking and installing Node and NPM on your system. The whole process (after you have XCode and Homebrew installed) should only take you a few minutes.

1. **Open the Terminal app** and type `brew install node`.
2. **Sit back and wait.** Homebrew downloads some files and installs them. And that's it.

To make sure you have Node and NPM installed, run two simple commands to see what version of each is installed:

- To see if Node is installed, type `node -v` in Terminal. This should print the version number so you'll see something like this `v0.10.31`.

- To see if NPM is installed, type `npm -v` in Terminal. This should print the version number so you'll see something like this `1.4.27`



Now generate three AngularJS projects using three different yeoman generators:

generator-angular (https://github.com/yeoman/generator-angular#readme)
generator-gulp-angular (https://github.com/swiip/generator-gulp-angular#readme)
generator-hottowel (https://github.com/johnpapa/generator-hottowel#readme)

For each project generated, we will:

- Run in dev mode to see how livereload or browserify works.
- Run the build script and analyze its output
- Attempt to attach source maps to the browser so we can debug production code

Additional resources:

- https://app.pluralsight.com/library/courses/node-intro/table-of-contents (Getting Started with Node.js, and Modules, require() and NPM)
- https://app.pluralsight.com/library/courses/grunt-introduction/table-of-contents
- https://app.pluralsight.com/library/courses/javascript-build-automation-gulpjs/table-of-contents