**Grunt.js**

Grunt.js is a JavaScript task runner which automates potentially repetitive tasks such as image optimization, concatenation and minification. Each task is run by a Grunt plugin, of which there is currently over 4000.

You don’t need to know how to install these plugins from scratch as we’ve already set them up for you, but if you’re interested in learning more this is a great [tutorial](http://24ways.org/2013/grunt-is-not-weird-and-hard/).

**Prerequisites**

Install [node.js](https://nodejs.org/)

Install [Ruby](http://rubyinstaller.org/) (make sure you check “Add Ruby executable to your PATH” during install)

Install Sass – open command prompt instance of Ruby and run gem install sass

Install Compass – open command prompt instance of Ruby and run gem install compass

Ensure you have **Gruntfile.js** and **package.json** in your root folder then open a command prompt pointing at this directory and run npm install this will install the plugins we use.

**Grunt commands (cmd prompt pointed at project folder)**

grunt\_ – Run this once to setup a project (compile Scss, add vendor prefixes to compiled CSS, concatenate JS files, minify JS and CSS).

Two new folders and files are created after running this – **stylesheets/min/compiled.min.css** and **js/min/production.js** these should be used when a project is at completion.

grunt watch – Watch any Scss and JS files for changes and run tasks on changed file.

grunt serve – Opens files over a local server and provides an external URL to test on devices. Any changes to HTML, CSS and JS will be picked up and trigger a browser refresh once the specified tasks for that changed file have completed.

grunt tinyimg – Optimizes any images in the images folder.

**Further information**

We are running Autoprefixer which is what adds vendor prefixes and fall backs for pre-determined browsers. The default settings includes the last 3 versions of each major browser and Safari 5+ (this is the last version of Safari for windows). Should you need to support any other browsers outside this list, open your Gruntfile.js and follow the link found in the autoprefixer settings. This will contain the keywords to support the browser you are looking for.