CS336 - WebStorm - Getting Started

1. Start WebStorm

After installing WebStorm, start the application.

A welcome panel will be displayed.

Select "Create New Project"

## 2. Select the Type of Project

We'll start with HTML5 Boilerplate because it will set up a file structure for your site. HTML5 Boilerplate is a template (literally boilerplate) package. It can be downloaded separately at html5boilerplate.com. However, it comes pre-installed in WebStorm.
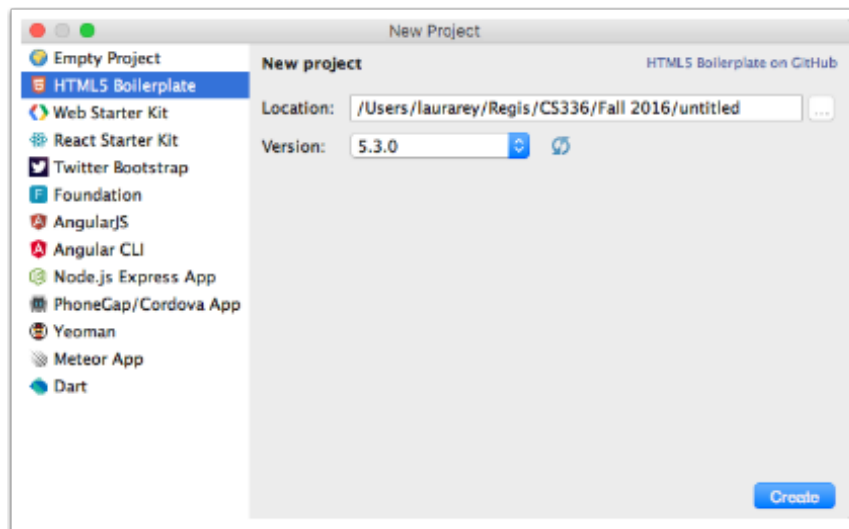
3. Select the location

Ciick in the location field and browse to the directory in which you wish to store your project.
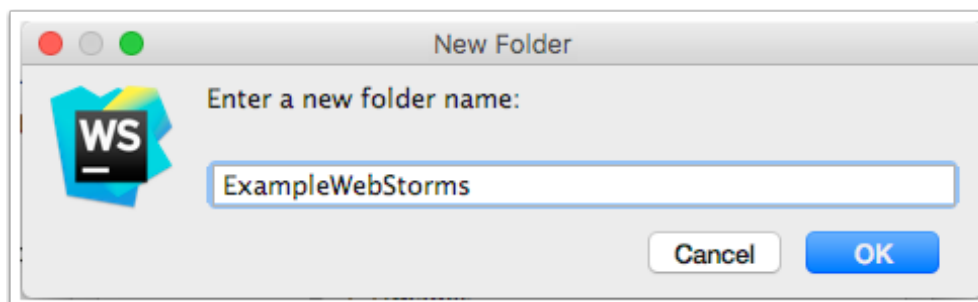
Right-click and create a new folder.
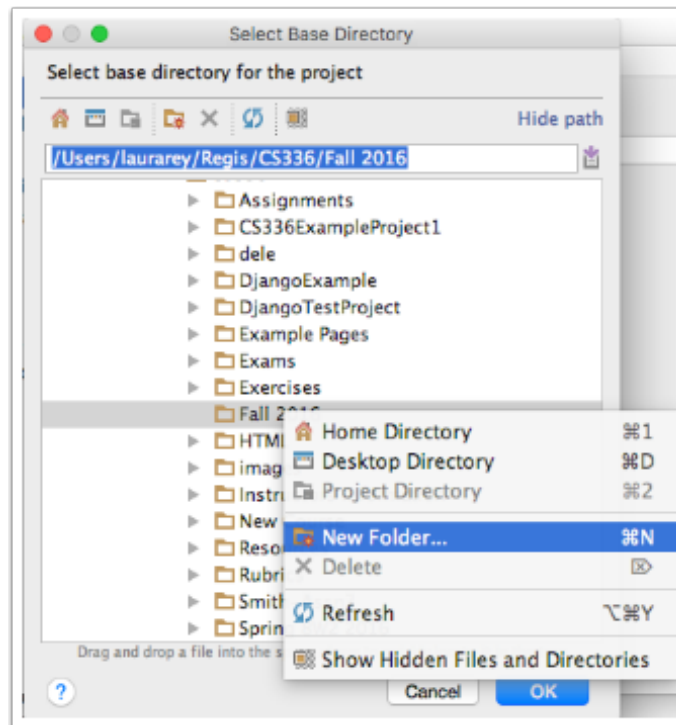
4. Name the Folder

For the class assignments, the folder will be the name of the assignment.
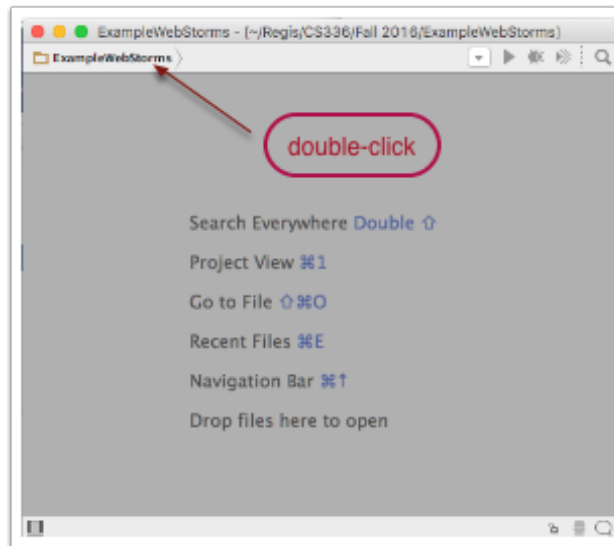
Then, click OK.

A new project will be created and loaded.

5. Open the Project

To open the file structure of the project, double-click on the project name in the upper left-hand corner or use one of the keyboard shortcuts shown. (On Windows, they will be slightly different.)

All the files and folders in the project will be displayed.
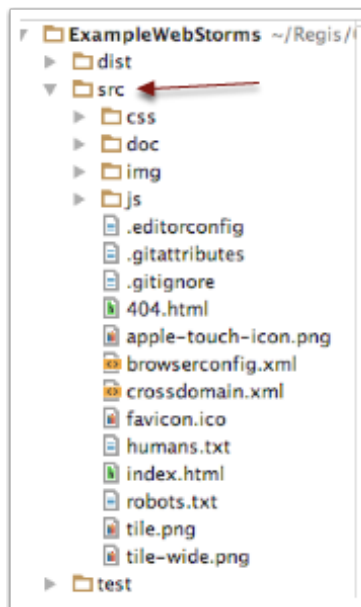
6. Expand the src Folder

Don't be overwhelmed by all the files. Some we'll explore. Others, we will delete.

Exapnd the src folder.

A list of subfolders and files will be displayed.

This is where we will be working for each assignment project. (Every assignment has its own project.)

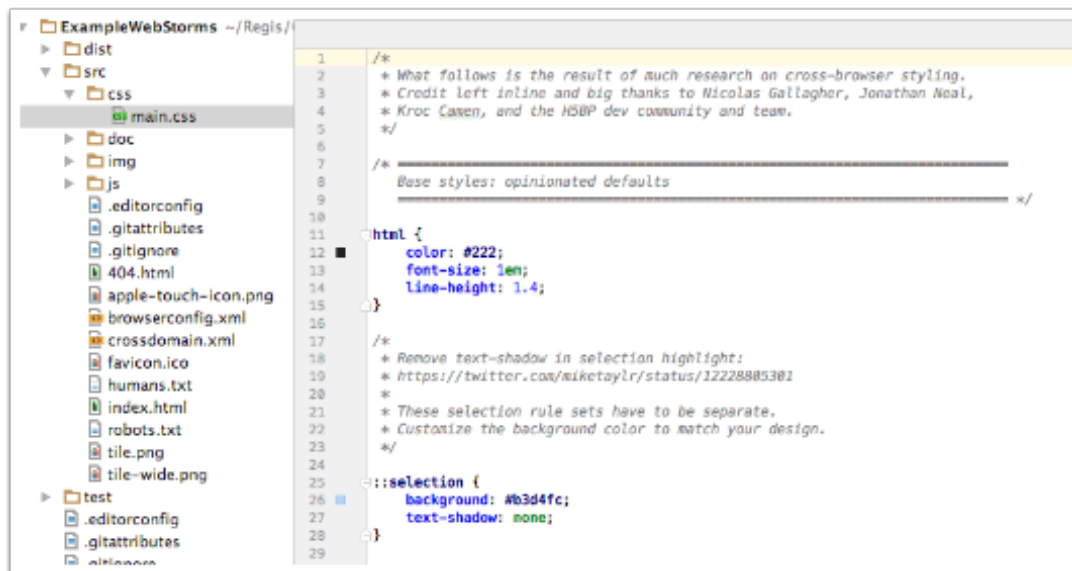Now let's go through the subfolders in the src directory.

6.1 Expand the css Folder

This is the folder that will hold all the Cascading Style Sheets for the project.

Double-click on **main.css**

The file will be opened.

main.css contains some basic style options which will be explored later in the course.
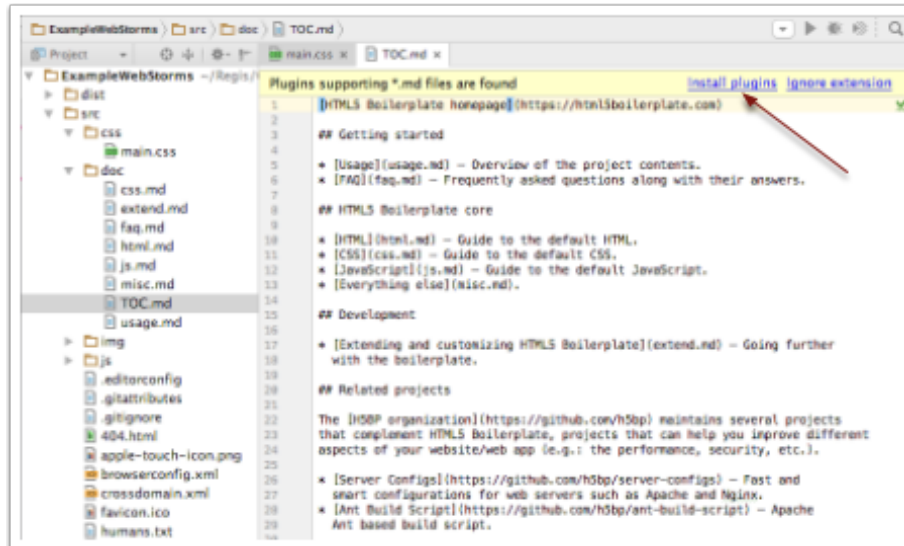
6.2 Expand the doc Folder

A list of files, all with ".md" extensions will be listed.

Double-click on the **TOC.md** file to open it.

WebStorm may inform you that it found a plugin to support .md files.

Click Install the plugins.
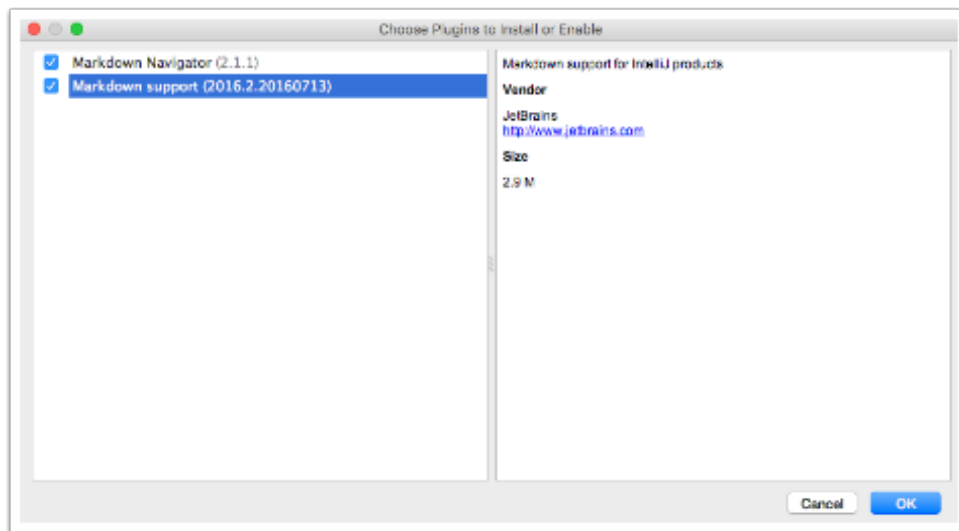
6.3 Choose Plugins to Install or Enable

Check both of the plugins below and click OK.

The plugins will be installed.

6.4 Review the installation messages

1. Click on the green message balloon in the lower right-hand corner.
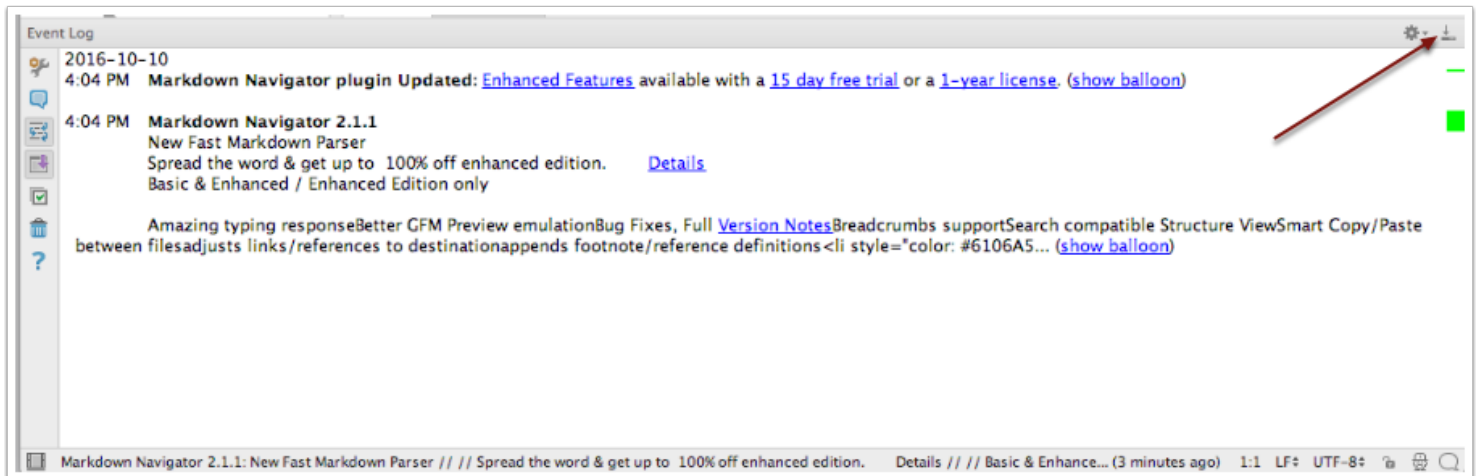2. Read the event log and click Restart.

WebStorm will quit and restart.

6.5 Close the Event Log Window

Click the Hide icon in the upper right-hand corner of the Event Log Window to hide the window.

6.6 Open the TOC.md File

.md is a file extension for something called Markdown. It enables developers (like you and me) to create documentation quickly and neatly. Here is the url for Markdown if you would like to learn more. https://daringfireball.net/projects/markdown/

The **TOC.md** file is the table of contents for the HTML5 Boilerplate basic documentation.

Click on the HTML Preview tab to see the .md file transform into human readable HTML.
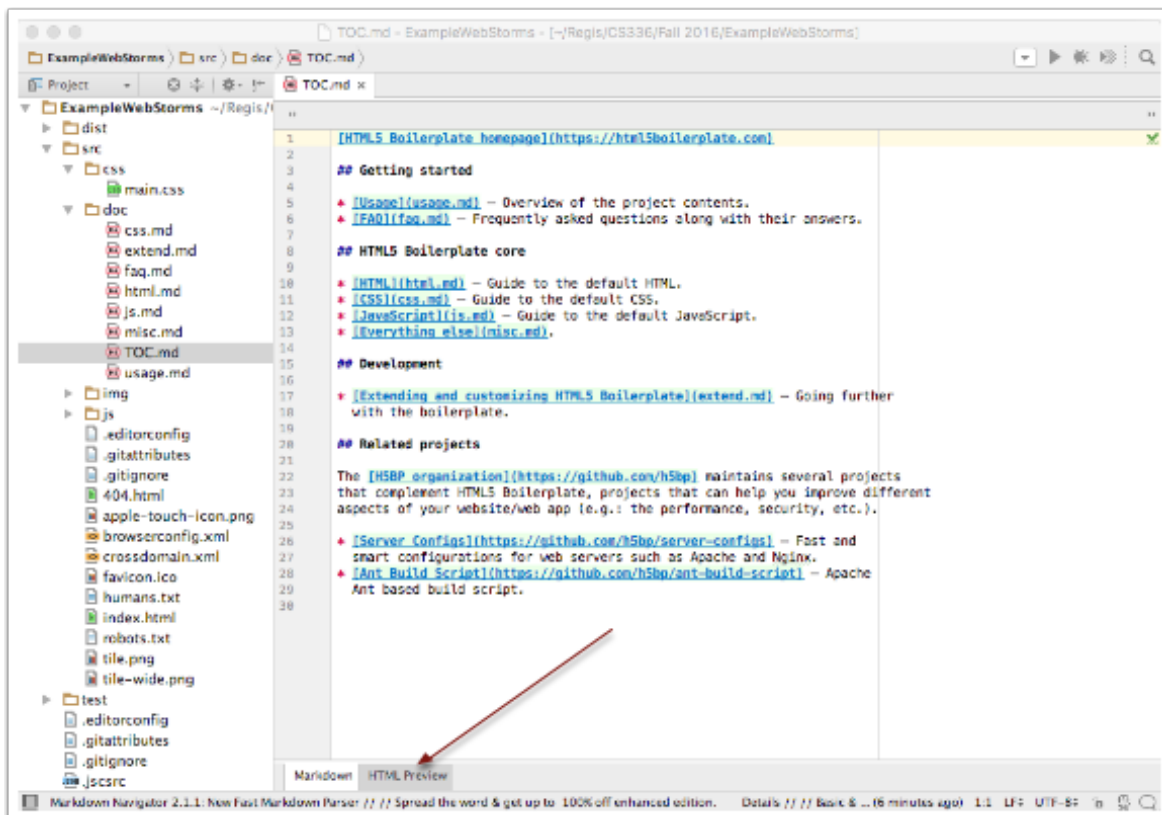
6.7 Click on HTML

The table of contents has links to pages explaining the files set up in the project structure.
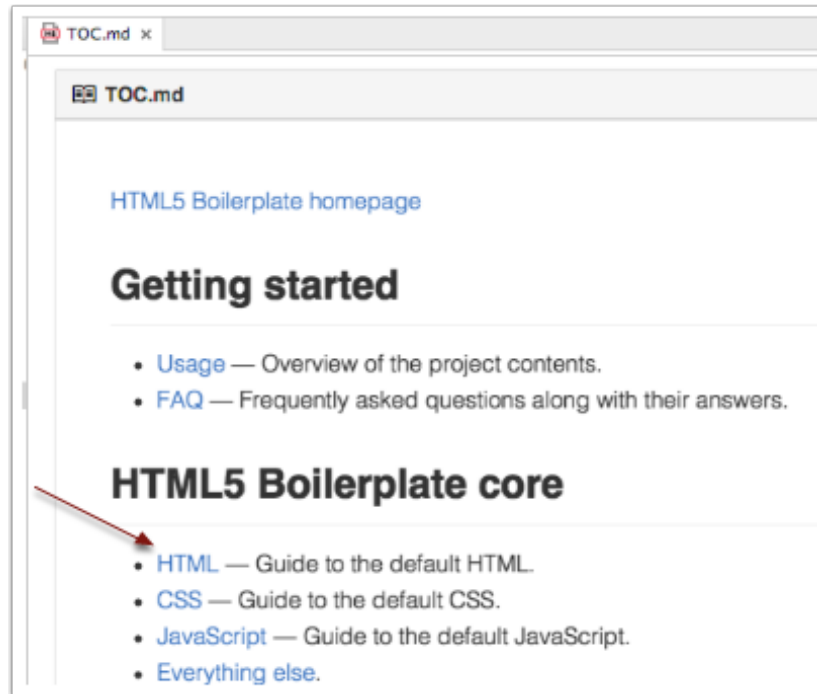
6.8 Skim the Page

This documentation goes through the **index.html** page and explains some of the elements in it. (Not all....the HTML5 basics are covered in the course content.) Don't worry if you don't understand what all the elements do yet.

6.9 Open the index.html page

6.10 Scroll through the index.html File

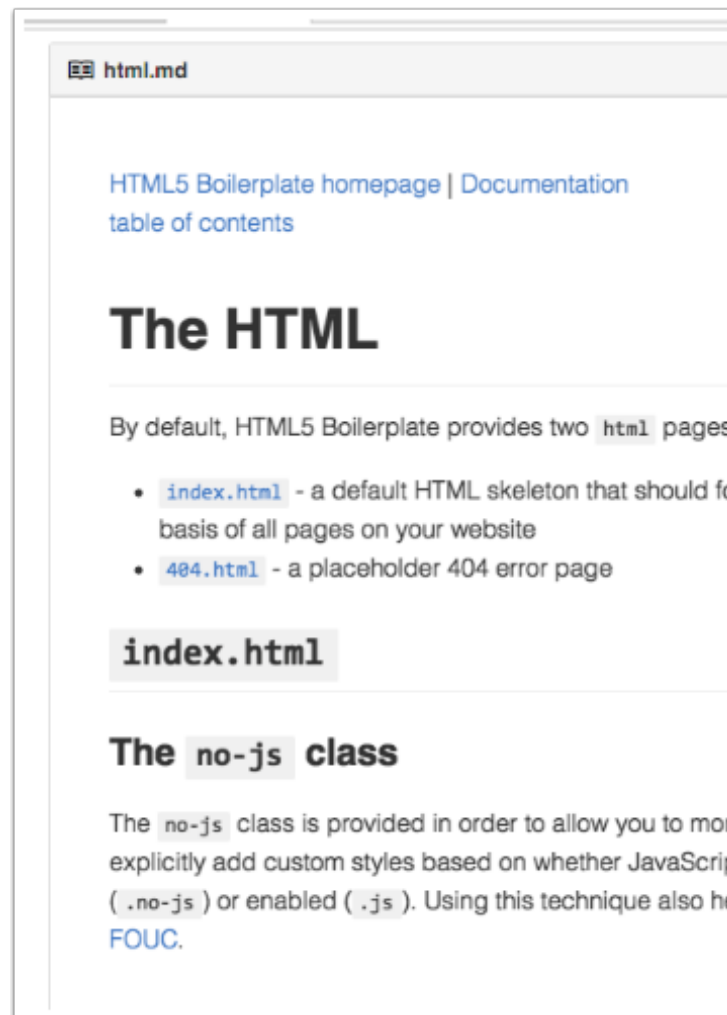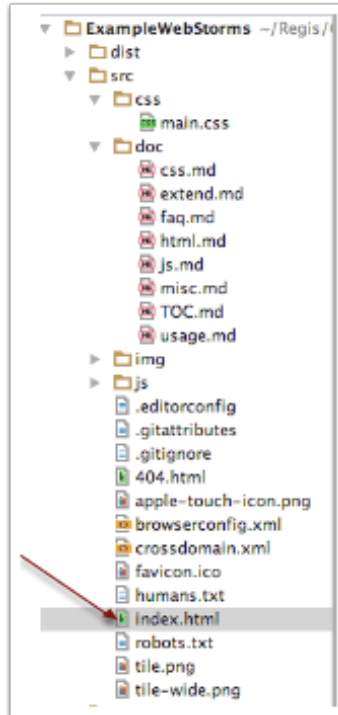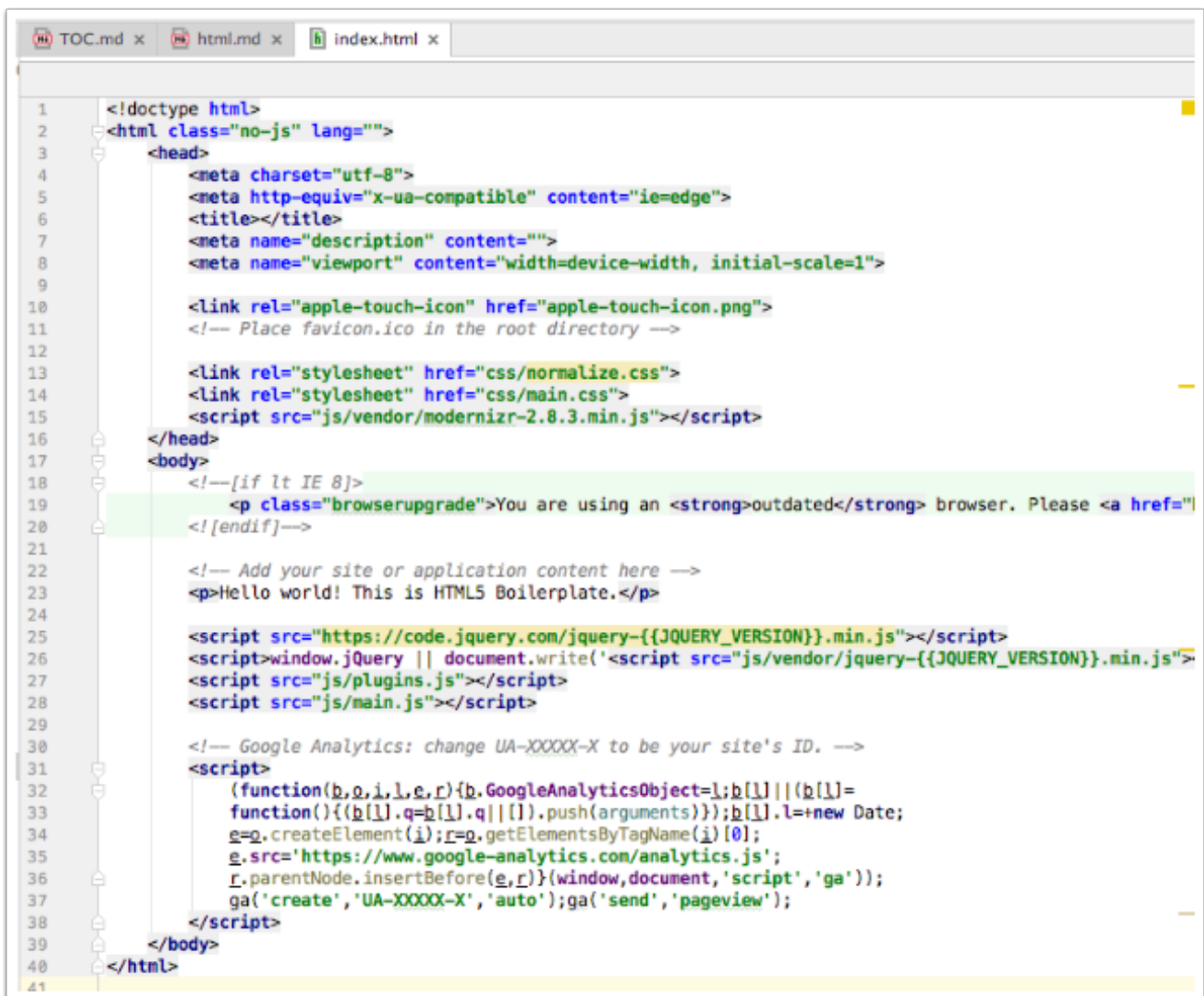index.html will be the landing page for all your sites. When we start working on the first project, we will delete everything on the page and start from scratch.

```html
<!doctype html>
<html class="no-js" lang="">
    <head>
        <meta charset="utf-8">
        <meta http-equiv="x-ua-compatible" content="ie=edge">
        <title></title>
        <meta name="description" content="">
        <meta name="viewport" content="width=device-width, initial-scale=1">

        <link rel="apple-touch-icon" href="apple-touch-icon.png">
        <!-- Place favicon.ico in the root directory -->

        <link rel="stylesheet" href="css/normalize.css">
        <link rel="stylesheet" href="css/main.css">
        <script src="js/vendor/modernizr-2.8.3.min.js"></script>
    </head>
    <body>
        <!--[if lt IE 8]>
            <p class="browserupgrade">You are using an <strong>outdated</strong> browser. Please <a href="
        <![endif]-->

        <!-- Add your site or application content here -->
        <p>Hello world! This is HTML5 Boilerplate.</p>

        <script src="https://code.jquery.com/jquery-{{JQUERY_VERSION}}.min.js"></script>
        <script>window.jQuery || document.write('<script src="js/vendor/jquery-{{JQUERY_VERSION}}.min.js">
        <script src="js/plugins.js"></script>
        <script src="js/main.js"></script>

        <!-- Google Analytics: change UA-XXXXX-X to be your site's ID. -->
        <script>
            (function(b,o,i,l,e,r){b.GoogleAnalyticsObject=l;b[l]||(b[l]=
            function(){(b[l].q=b[l].q||[]).push(arguments)});b[l].l=+new Date;
            e=o.createElement(i);r=o.getElementsByTagName(i)[0];
            e.src='https://www.google-analytics.com/analytics.js';
            r.parentNode.insertBefore(e,r)}(window,document,'script','ga'));
            ga('create','UA-XXXXX-X','auto');ga('send','pageview');
        </script>
    </body>
</html>
```
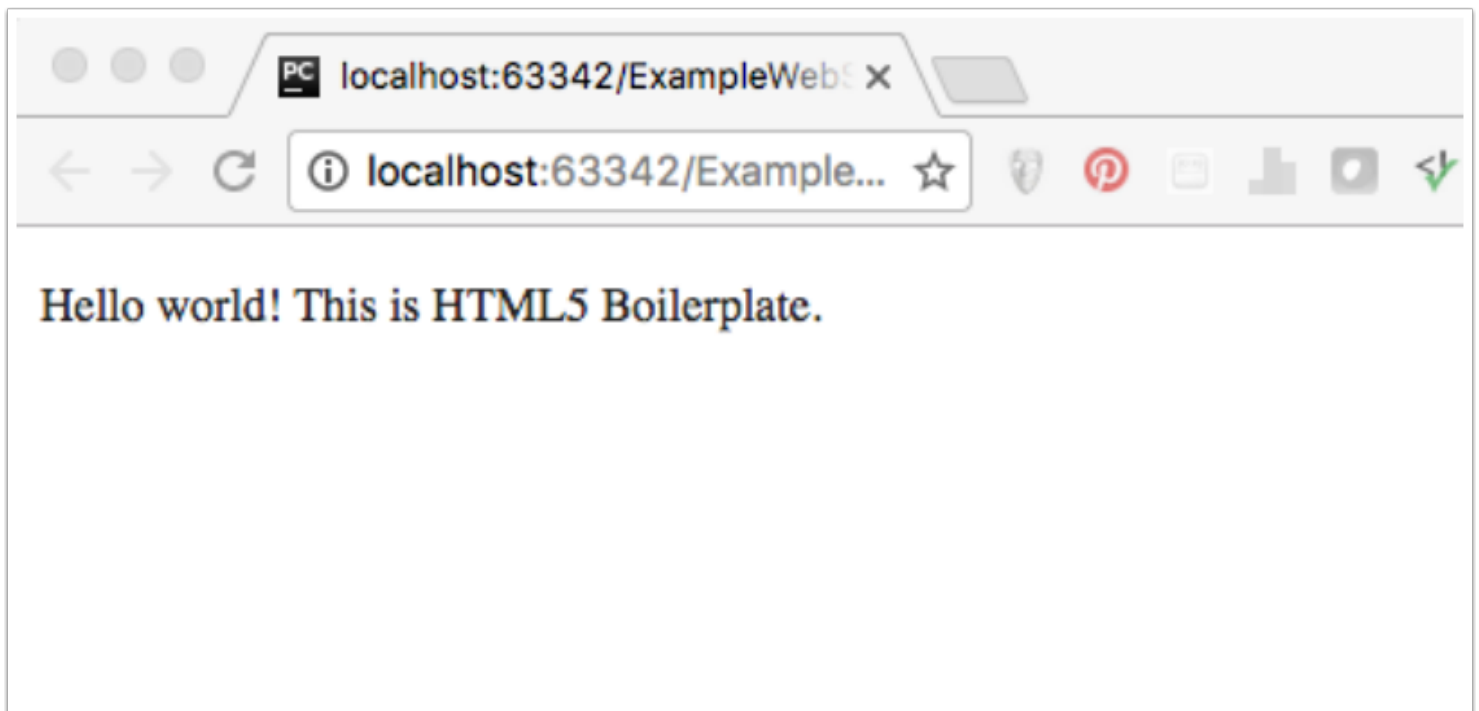
6.11 Open the page in a Web Browser

The fastest way to open a page is to click on the icon for the browser you want.   If you don't see these icons, move your mouse around on the page a bit. They should appear. Also, which browser icons appear depends on which browsers are installed on your system.

```
dex.html ×

html.no-js  head
<!doctype html>
<html class="no-js" lang="">
    <head>
        <meta charset="utf-8">
        <meta http-equiv="x-ua-compatible" content="ie=edge">
        <title></title>
        <meta name="description" content="">
        <meta name="viewport" content="width=device-width, initial-scale=1">
```

6.12 View the Page

Here is what the page looks like in Chrome.

localhost:63342/ExampleWeb ×

localhost:63342/Example... ☆

Hello world! This is HTML5 Boilerplate.

6.13 Expand the img Folder

This is where all the images used on your site will be stored. Currently, the img folder contains a .gitignore file. This is used with a plugin for git. Git is a version control package. Most large websites and software packages evolve. Keeping track of all the code and assests can be a major headache. You find yourself asking, "Did I include the new image in this release? Or the last?" Git enables us to track changes, releases, versions, etc. It is beyond the scope of this course, but if you're interested, visit these two links:

https://git-scm.com/

https://github.com/

For our purposes, you can delete the .gitignore file.
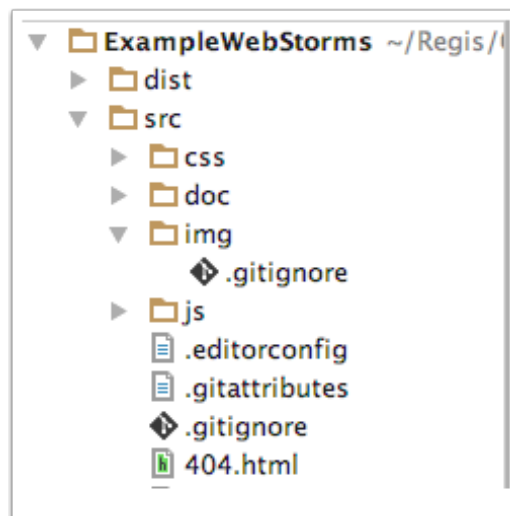
6.14 Expand the js Folder

The JavaScript that you write for your site will be stored in the js folder.

There are almost an infinite number of JavaScript libaries available to add to functionality to your site. Those libaries can be stored in the the vendor folder. Currently, *modernizer* is in the vendor folder. Modernizer is a script that test a user's browser and reports what browser they are using by detecting various features. Here a link to Modernizer. https://modernizr.com/docs/#what-is-modernizr

plugins.js is where any 3rd party scripts or jQuery plugins will reside. jQuery alone has thousands of plugins...from things like fade out to adding a calendar to select a date.
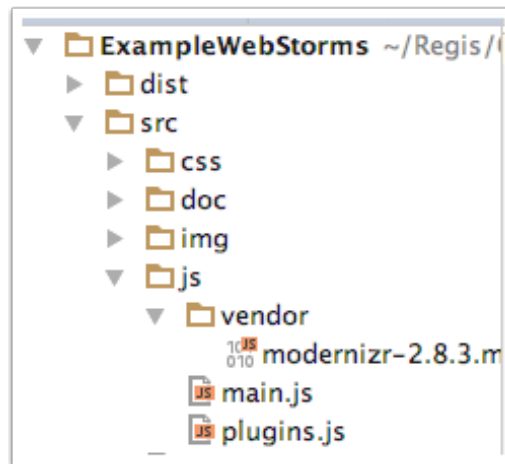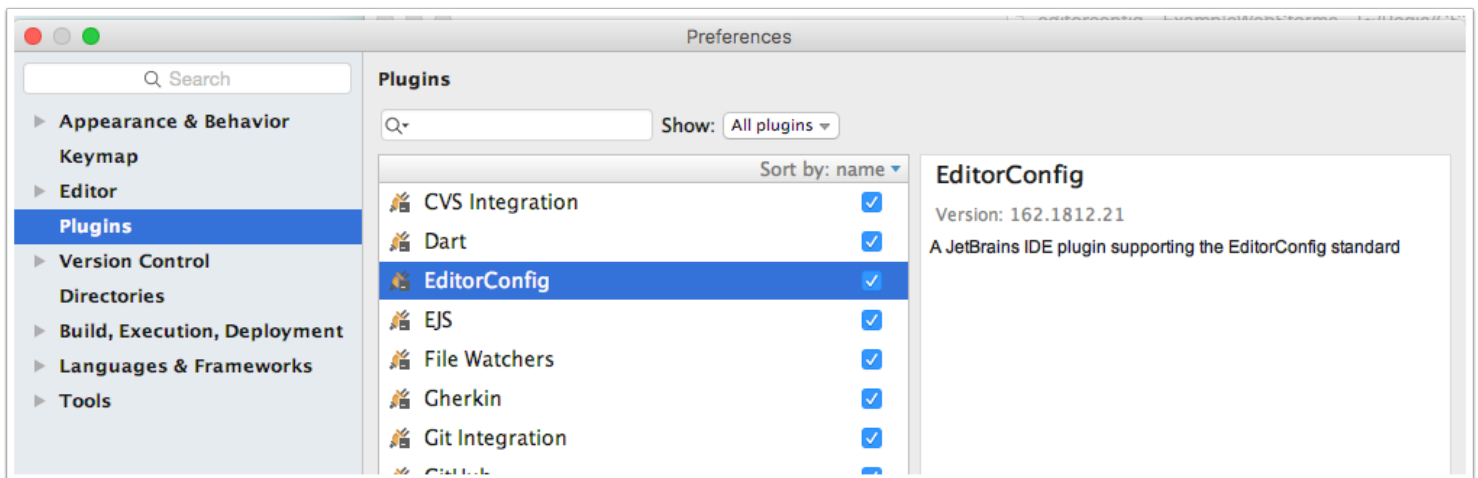
6.15 Checking Plugins

WebStorm has over 600 available plugins. To see what is installed in your version or to install others (or remove them), go to your Preferences/Settings panel. Then click on Plugins.
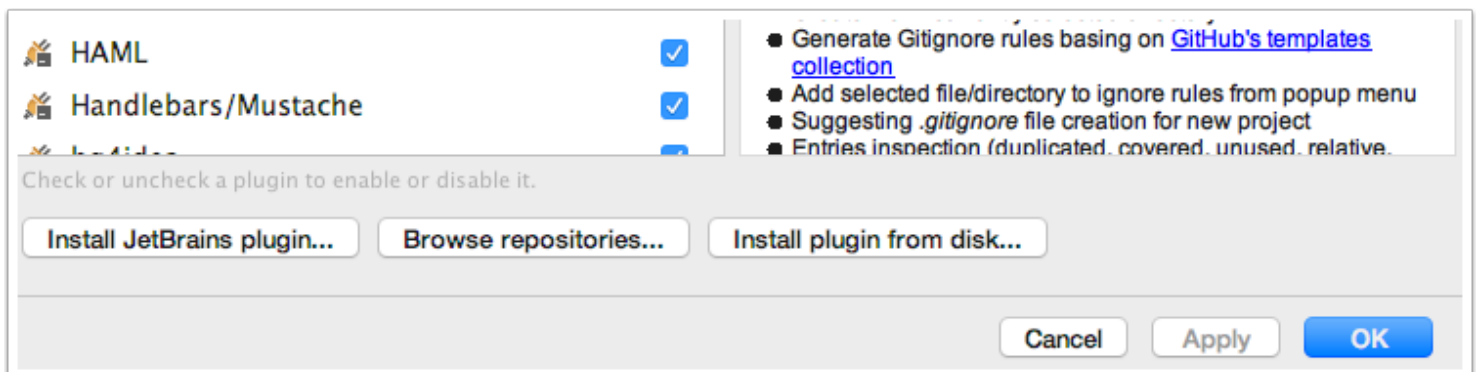
A list of plugins and their current status will be displayed.
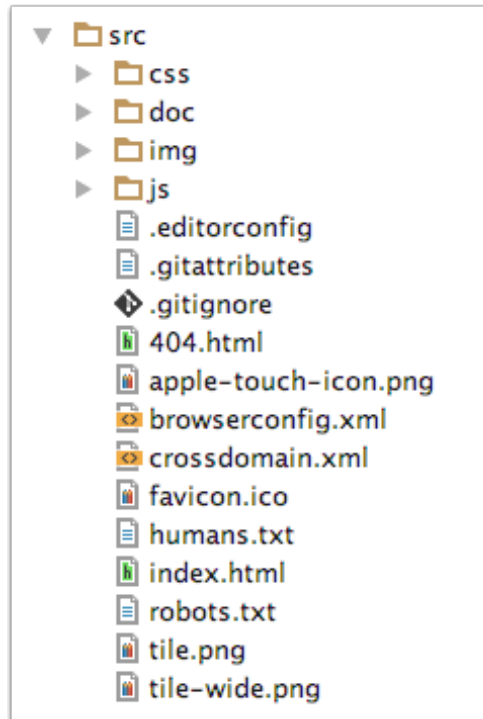

6.16 Installing New Plugins

To install a new plugin, use one of the buttons at the bottom of the Preferences/Settings >> Plugins panel and select the plugin you wish to install.

WebStorms will need to be restarted after adding a plugin.

6.17 Miscellaneous Files

There are several other files in the src directory. Let's look at these one-by-one.


6.18 The .gitignore and .gitattributes files

.**gitignore** and .**gitattributes** both relate to Git version control and can be deleted from you projects. (Unless you are personally using Git.)

6.19 Open the .editorconfig File

The .**editorconfig** file is included so that if more than one developer is working on a project, a standard set of code styles can be maintained. The file is supported by a large number of IDEs and editors. It can insure that everyone is indenting the same amount and using tabs or spaces for the indent. For more information, visit http://editorconfig.org/#supported-properties

For our projects, it doesn't matter since the assignments aren't group projects. However, if you wil be working on two different machines (e.g.: work and home), you may want to make sure the same editor configuration is used. You will need to install a plugin to use it.
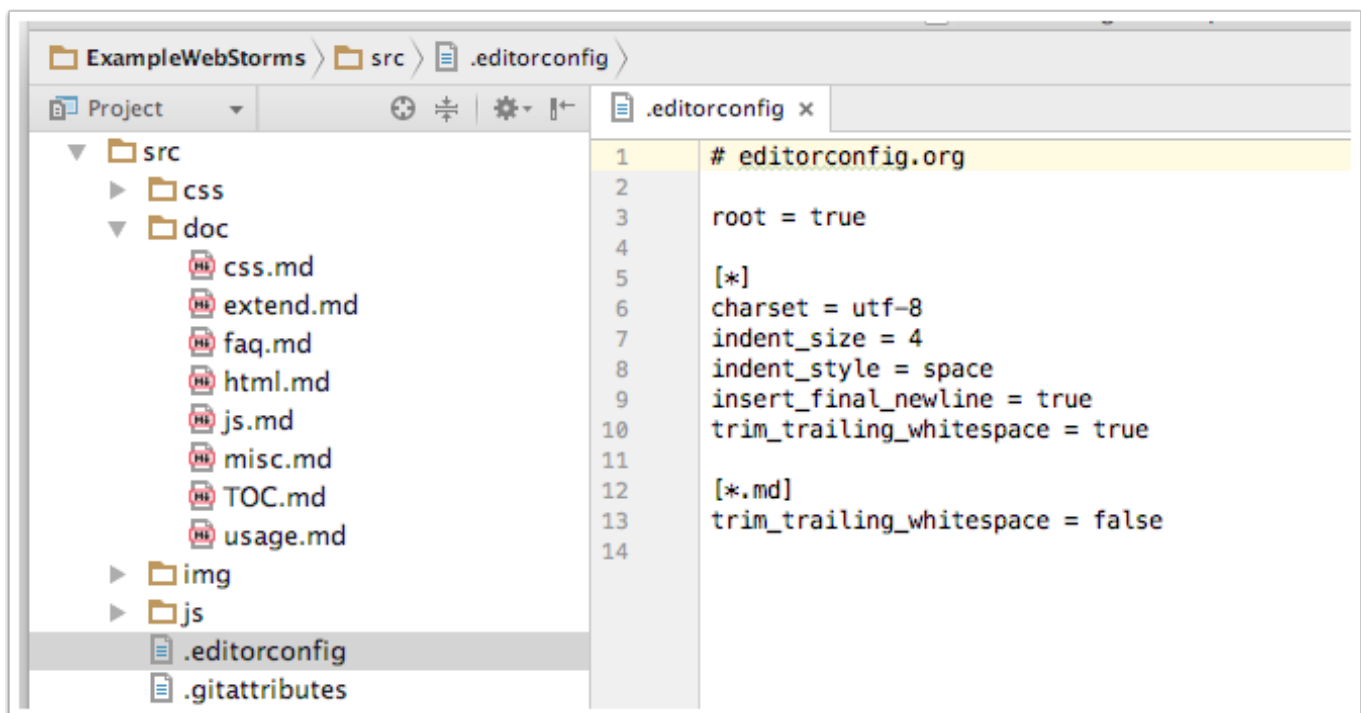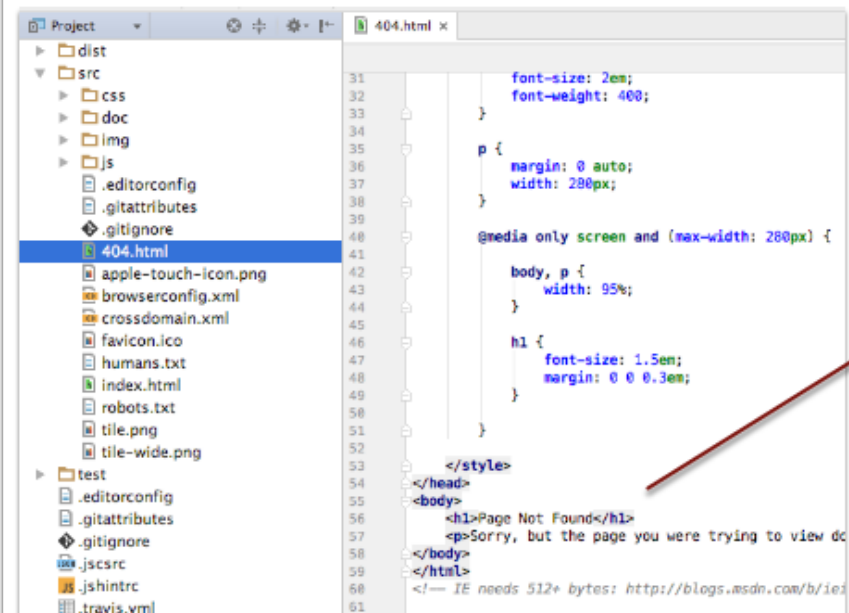
6.20 404.html

You know those irritating pages that appear when you type in a url incorrectly? They are colloquially referred to as 404s. Where does the number come from? They are actually HTTP responses. Here is a link to all of them:
https://developer.mozilla.org/en-US/docs/Web/HTTP/Status

However, if a url isn't found, a page should be displayed explaining that to the user. Thus, the 404.html page. They can be tailored for each website. The 404 for Regis.edu is shown at the bottom.

6.21 crossdomain.xml

This file enables the user's browser (local client) to handle data from multiple domains. We will talk about cross-site scripting in this course. It is a real security issue.
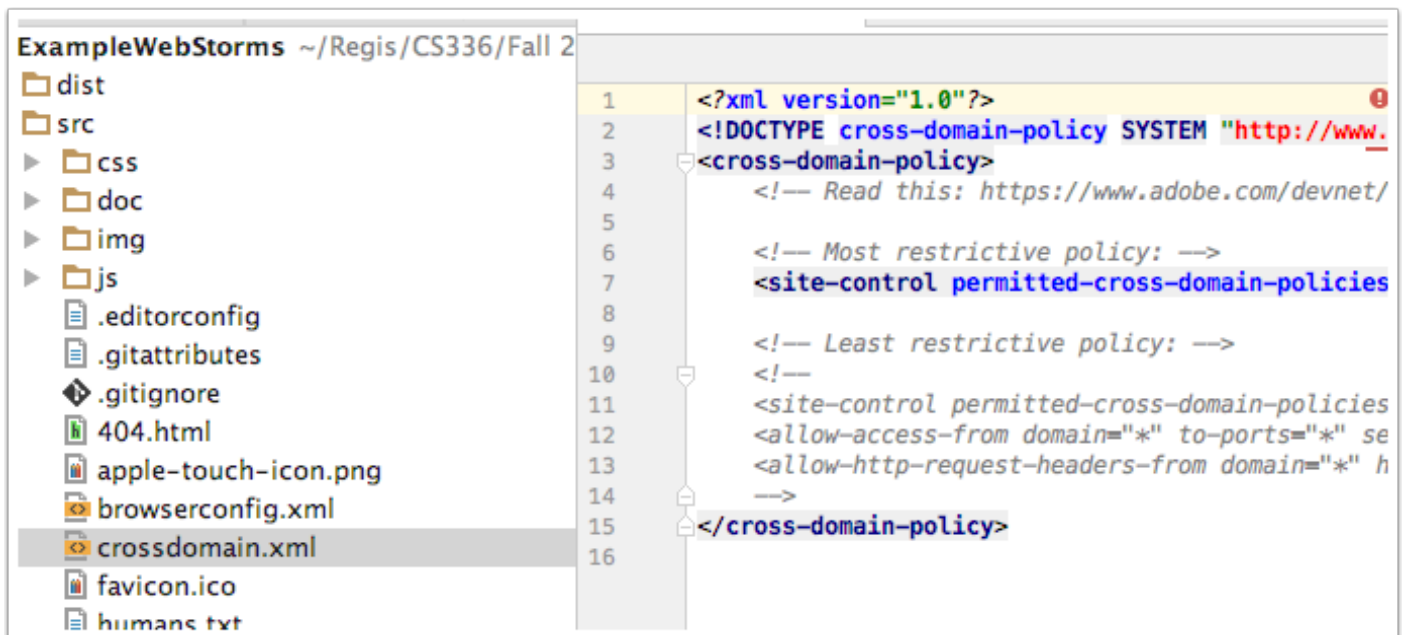
6.22 favicon.ico

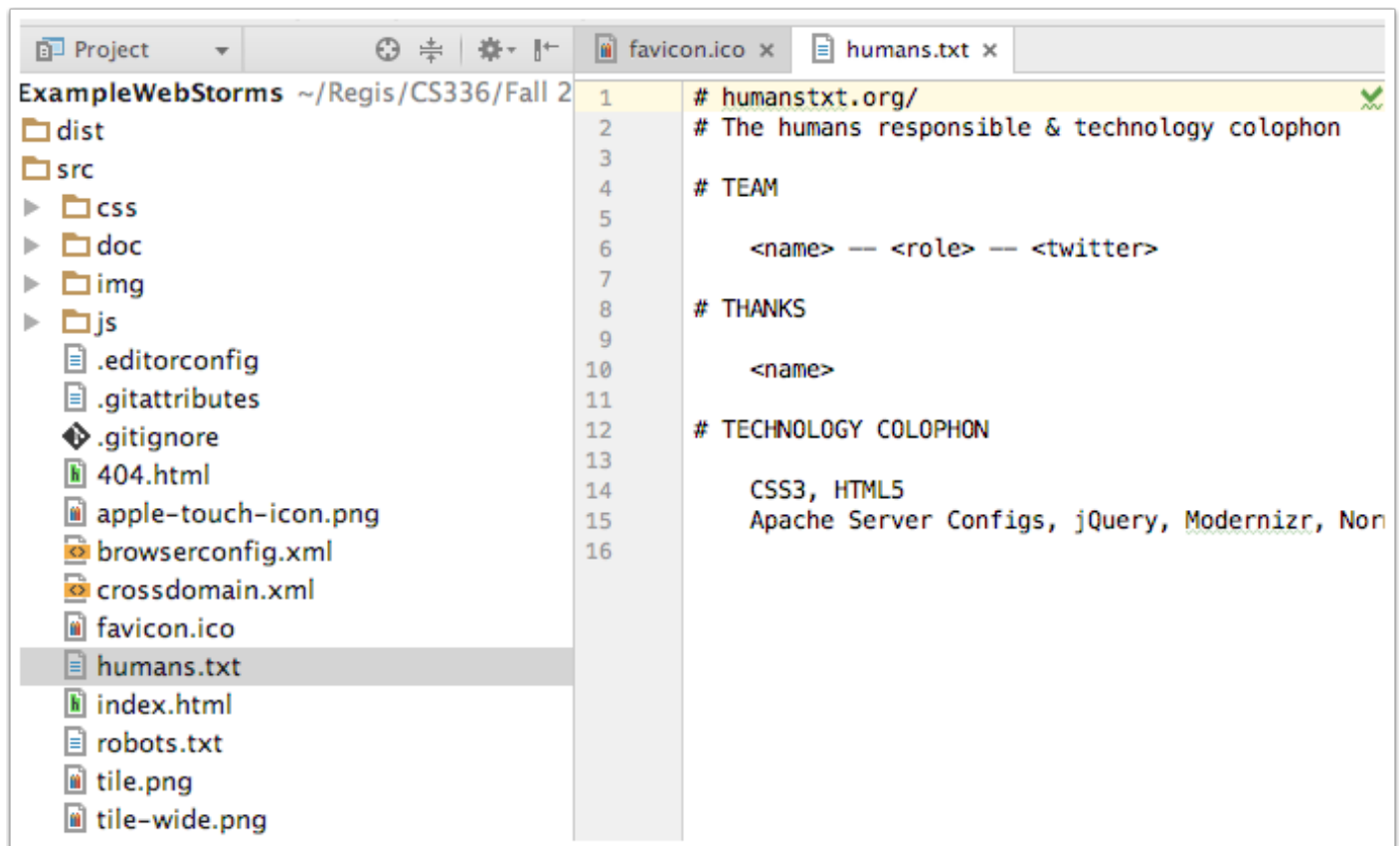When you load a page in a browser, a small graphic appears on the tab or in the address line. That graphic is called a **favicon.ico**. For the Regis site, its the Regis "R" and "U" logo. If you are interested in creating a favicon.ico, here is where you can find more information and actually create one. http://www.favicon.cc/ After you create it, it is stored as the favicon.ico file on the site.
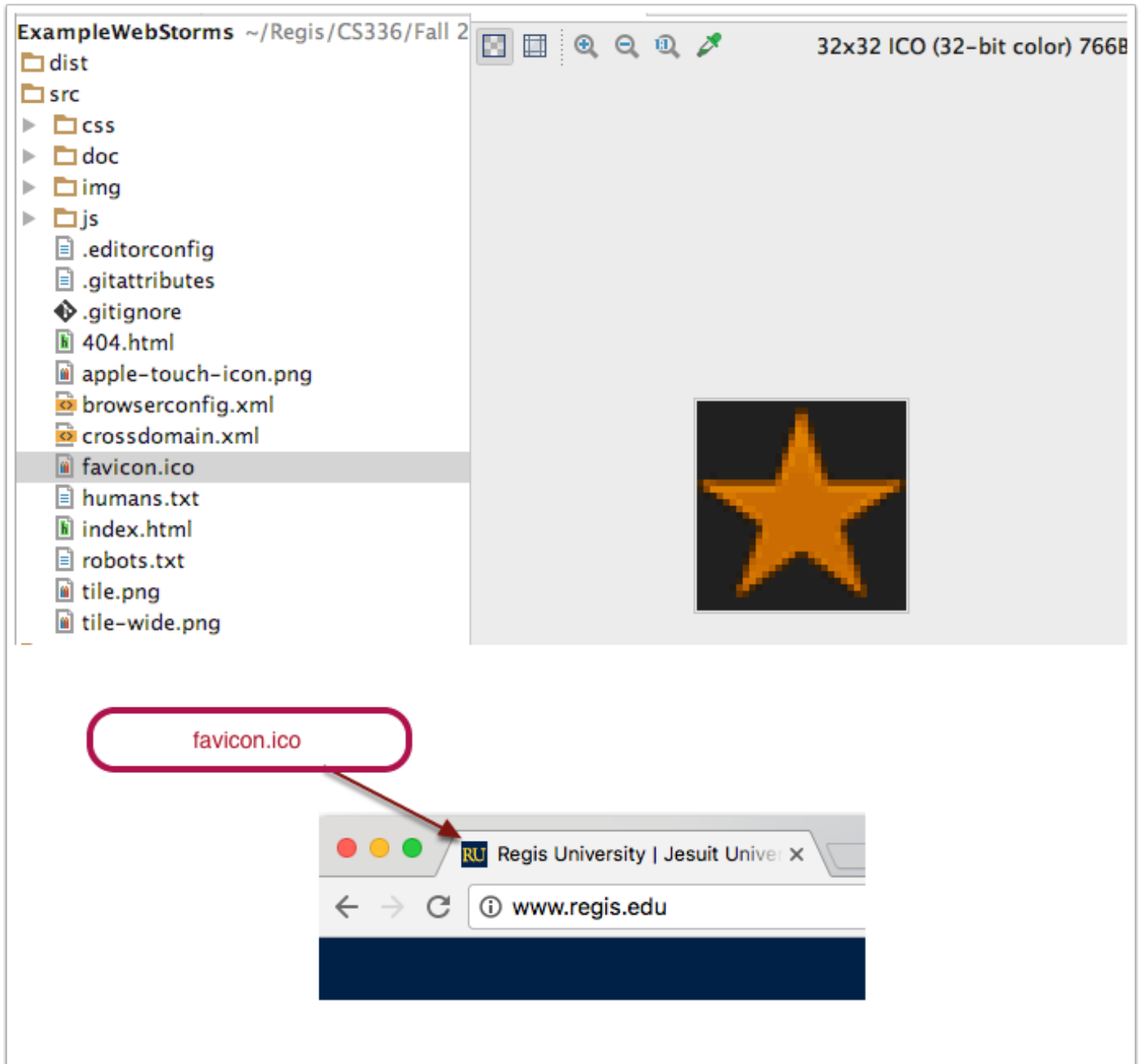
6.23 humans.txt

Who worked on the site and technology? Who contributed? Who do you need to thank? The **humans.txt** file is where that information goes.

```
# humanstxt.org/
# The humans responsible & technology colophon

# TEAM

    <name> -- <role> -- <twitter>

# THANKS

    <name>

# TECHNOLOGY COLOPHON

    CSS3, HTML5
    Apache Server Configs, jQuery, Modernizr, Nor
```

6.24 robots.txt

Programs that wonder around the web are referred to as 'bots or spiders. For example, search engines use them for discovering and indexing sites . So, to control what the program sees on your site, you can add a **robots.txt** file with instructions in it. For further information, visit http://www.robotstxt.org/
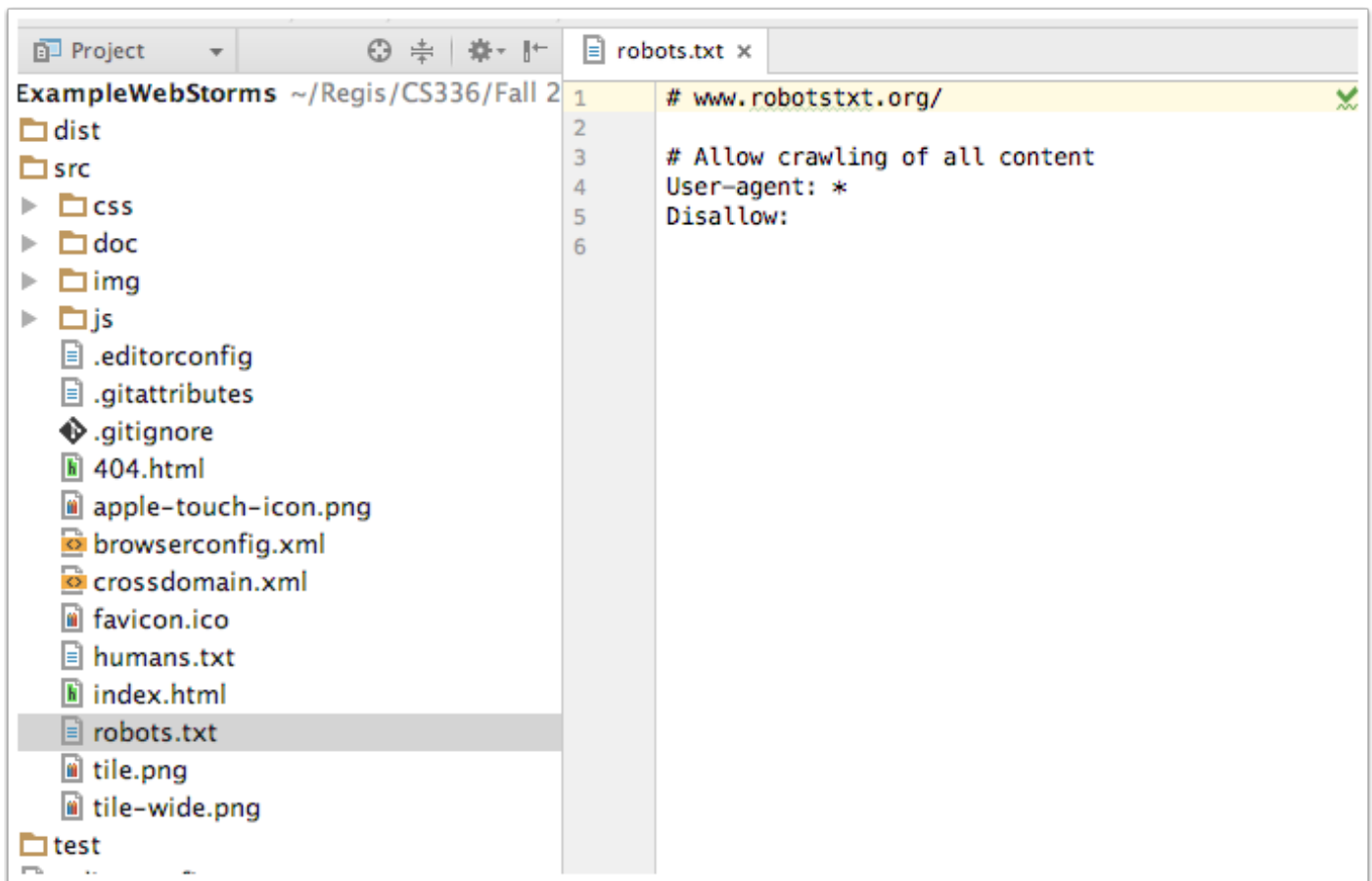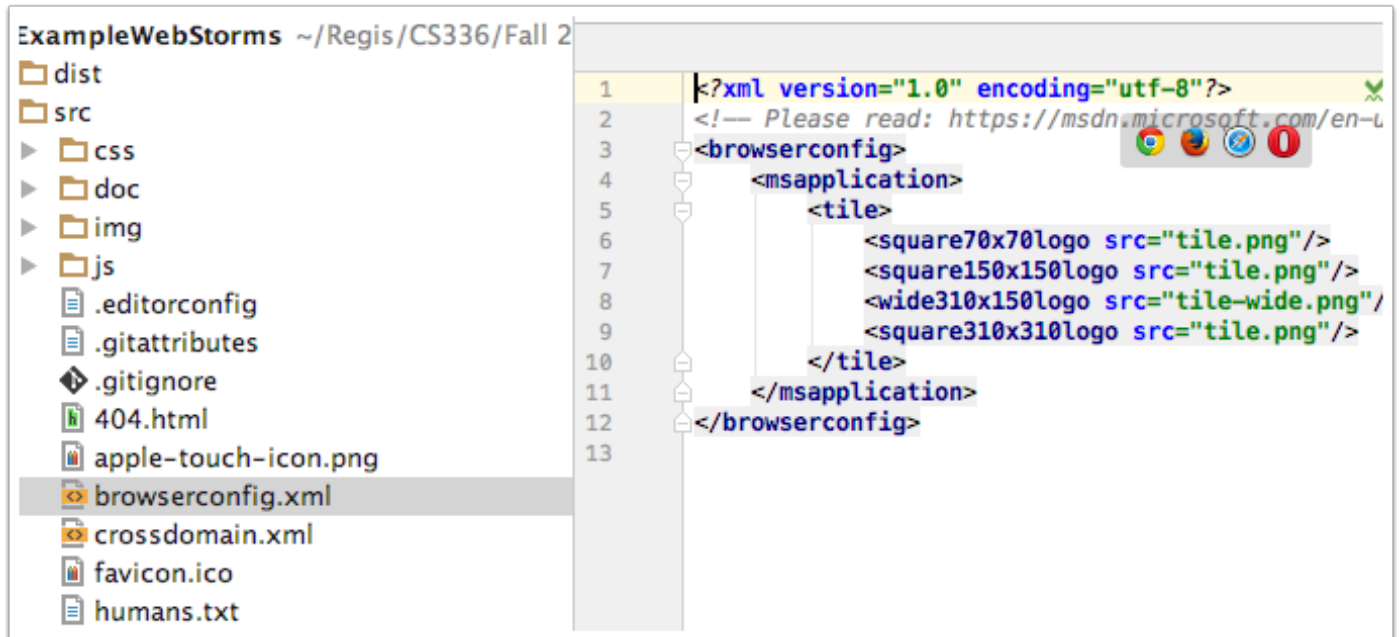
6.25 Apple Touch Icon

On our mobile phones, we have little icons for each app. If you save a browser page to the home page, you'll see the apple-touch-icon. For more information on how to create these, visit: https://realfavicongenerator.net/blog/apple-touch-icon-the-good-the-bad-the-ugly/
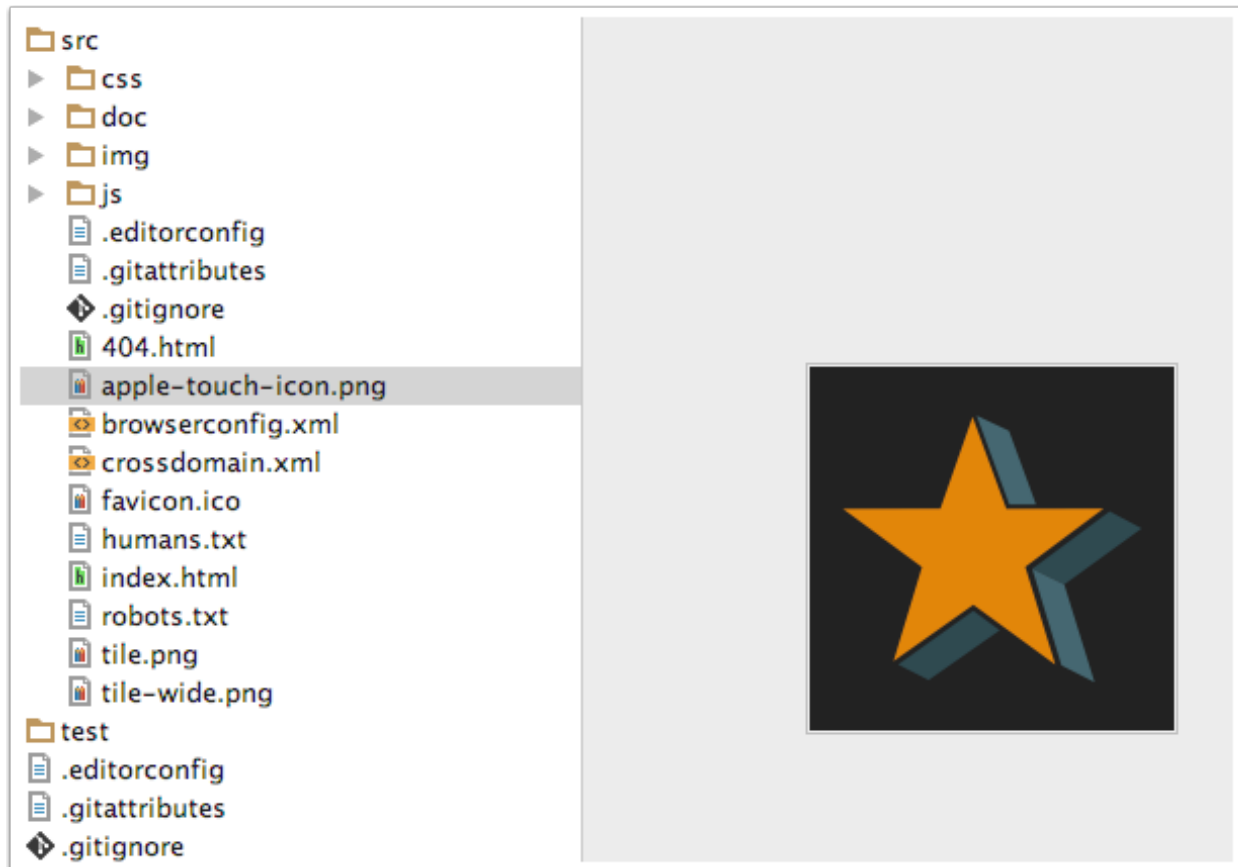
6.26 browserconfig.xml

This is used with the tile files to display touch icons on Microsoft phones and in Windows.

```
ExampleWebStorms ~/Regis/CS336/Fall 2
dist
src
  css
  doc
  img
  js
  .editorconfig
  .gitattributes
  .gitignore
  404.html
  apple-touch-icon.png
  browserconfig.xml
  crossdomain.xml
  favicon.ico
  humans.txt
```

```xml
1   <?xml version="1.0" encoding="utf-8"?>
2   <!-- Please read: https://msdn.microsoft.com/en-u
3   <browserconfig>
4       <msapplication>
5           <tile>
6               <square70x70logo src="tile.png"/>
7               <square150x150logo src="tile.png"/>
8               <wide310x150logo src="tile-wide.png"/
9               <square310x310logo src="tile.png"/>
10          </tile>
11      </msapplication>
12  </browserconfig>
13
```

6.27 tile-wide.png and tile-wide.png

These files are used by windows. Like the apple-touch-icon, tiles are found on the windows phone start up screen. They are different from the apple/android icons because they can be resized.
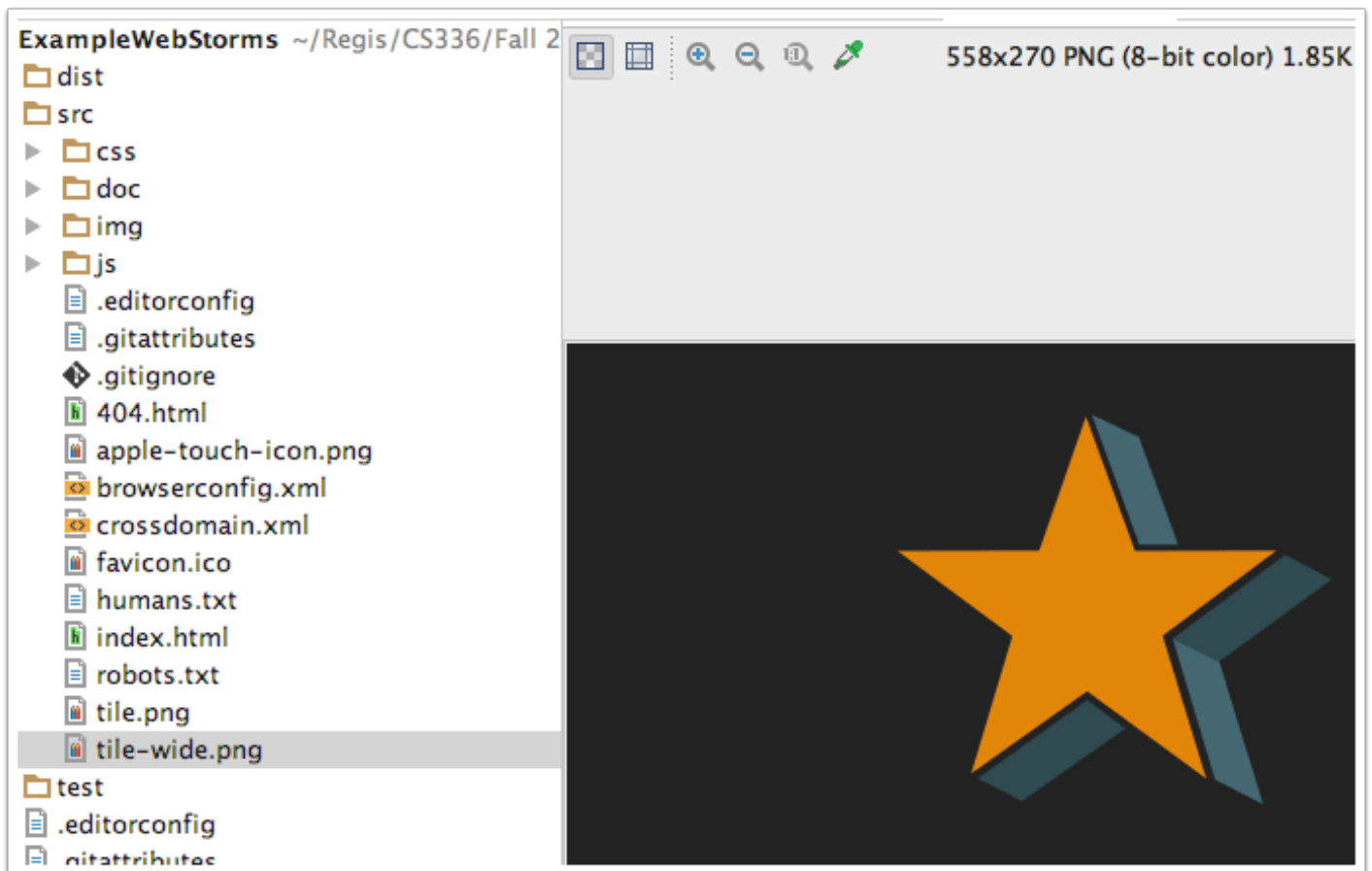
7. Expand the dist Folder

Look familiar? It should. While the src folder holds the raw code, the dist folder holds the code that has been minified/concatenated which is copy of the code that is live on the server. The file names will almost always be identical to the src directory.
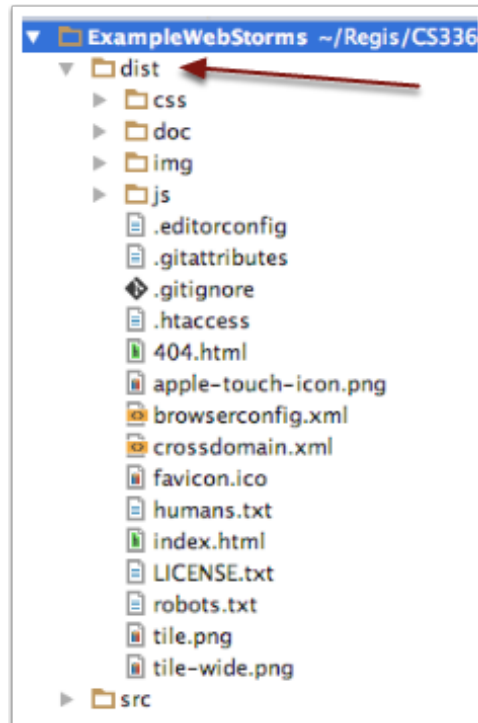
8. Expand the test Folder

The last folder we'll look at is the test folder. WebStorm supports several unit testing packages for JavaScript. When we get to the JavaScript section of the course, we'll explore this further.