

# GrC 377 – FoCo Web Page Tutorial

## Before you start...

1. Have your final FoCo logo and FoCo brochure PDF available
2. Write a mission statement or short description for your FoCo
3. Find a high resolution background photo (try [unsplash.com](https://unsplash.com) or [pexels.com](https://pexels.com))
4. [Download the free VS Code Text Editor](#) and set up Live Server preview (see VS Code Intro video)
5. Download the Web Dev Tutorial files from Canvas

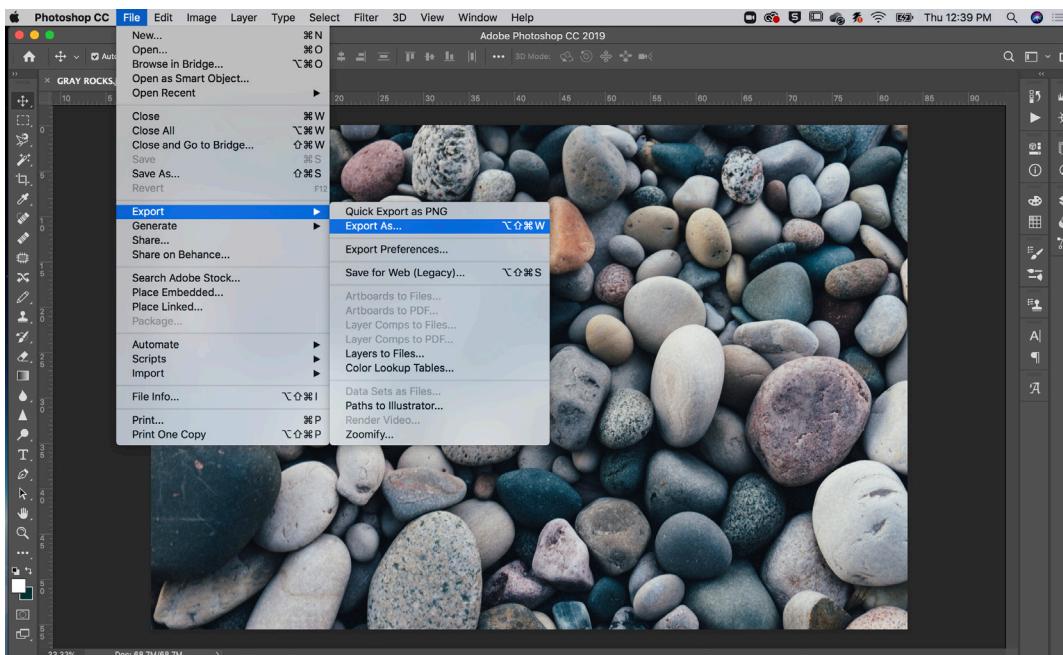
## STAGE 1 – Optimizing images for web

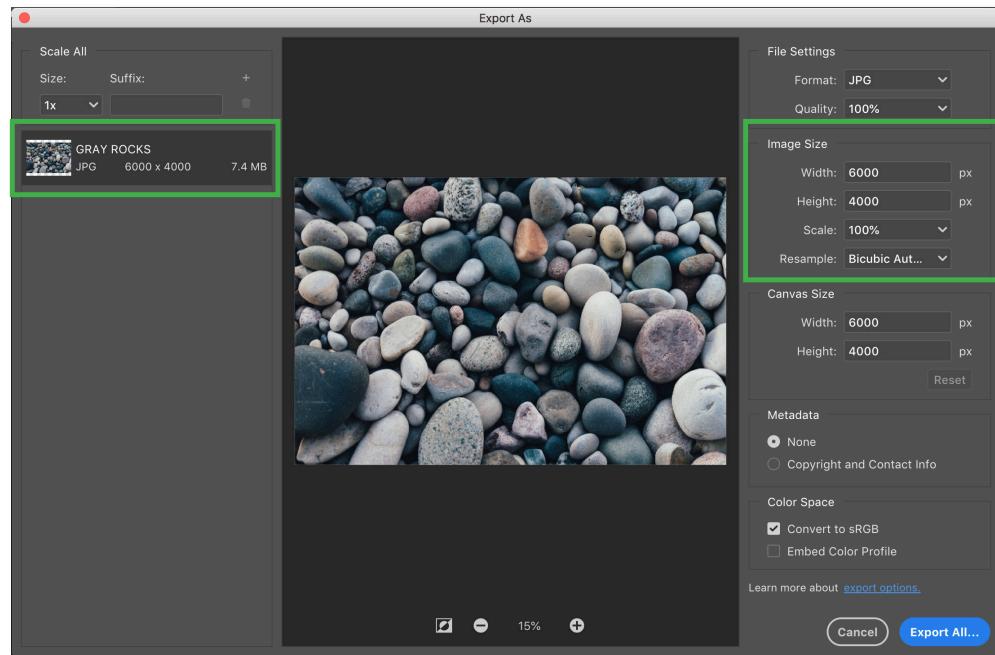
1. Create a new folder (directory) on the desktop, name it **UPLOAD THE STUFF INSIDE**.
2. Create a folder called **images (all lowercase)** inside the **UPLOAD THE STUFF INSIDE** folder.
3. Choose an image for your background and **optimize** it for the web (see below) and save the image in the **images** folder.
  - » Your image should be at least **1800 pixels but no more than 2000 pixels wide**.
  - » You'll use CSS to keep it as a background image covering 100% of the browser.
4. **Optimize** your FoCo logo for the web (see below) and save the image in the **images** folder.
  - » You'll create 1x and 2x (retina graphic) version of your logo

## Optimize Your Background Image

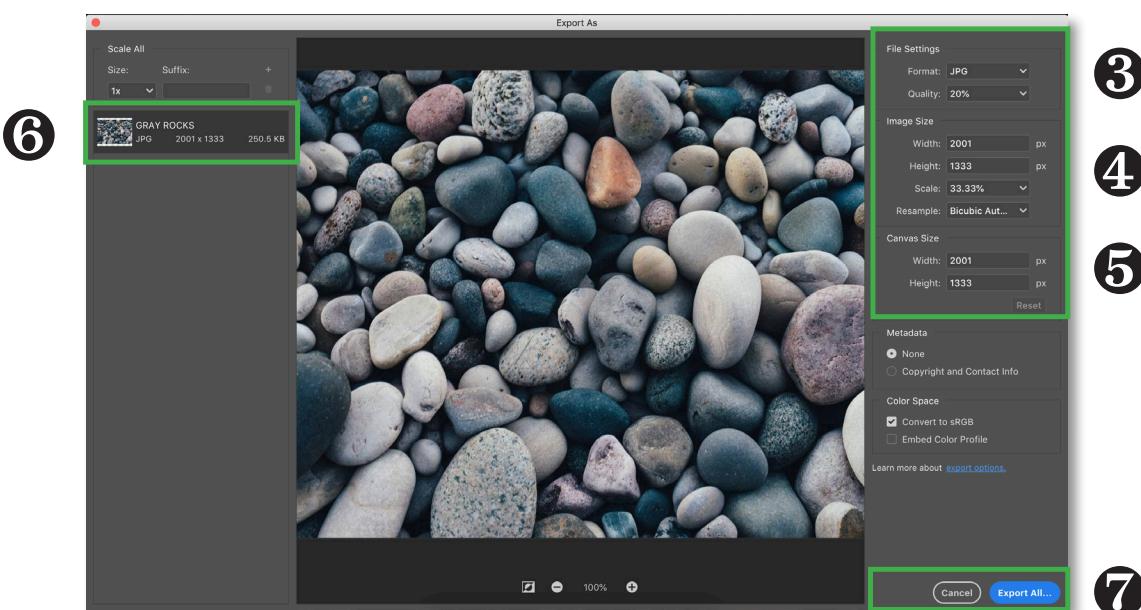
Using Photoshop, open the file "GREY ROCKS.jpg" (You can use the sample file provided for this tutorial, but please replace it with your own image for the final project.)

**File > Export > Export As...** to determine how large the image is and how to reduce the file size (optimized) and dimensions.





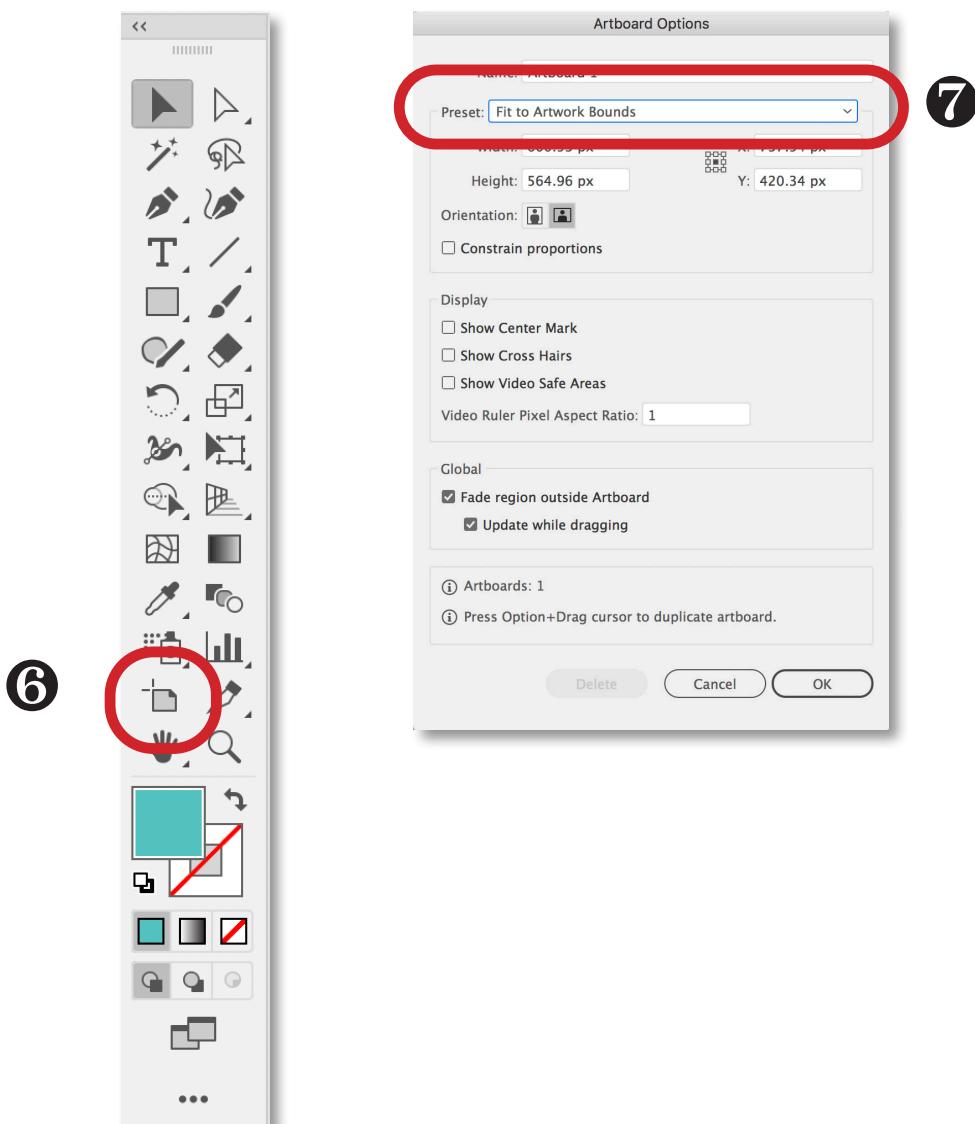
1. Note the image size (left side) is 7.4MB, that's huge! It will take too long to download the image.
2. A single background image **should not exceed 2000 pixels wide for this project**.
3. Raster images usually optimize best as JPGs. Background images don't need to be ultra-high-quality but keep an eye on your image as you make decisions on quality. Reduce the quality until you see obvious artifacts, then increase the quality until they disappear.
4. Change the width, and the height will change proportionally automatically.
5. The Canvas size will change automatically.
6. Once you make the changes, you'll notice the file size (left side) has changed to 250KB. This will load much faster than 7.4MB!
7. Click on **Export All** and save in your **images** folder inside your **UPLOAD...** folder. Rename your background image something that makes sense to you (using lower case and no spaces). It's customary to use bg in the file name for backgrounds (eg: **rocks-bg.jpg**).

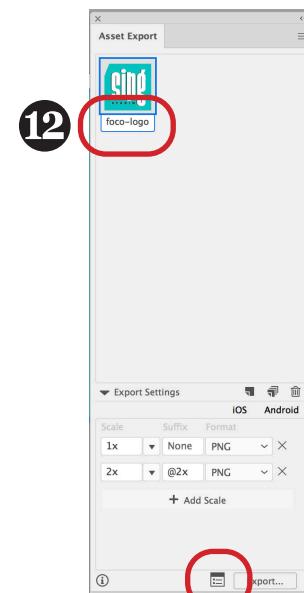
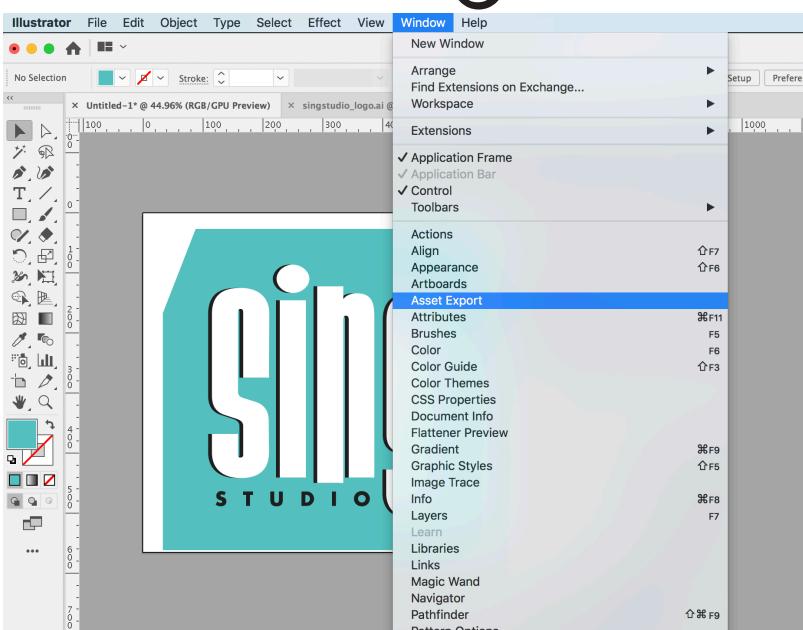


## Optimize Your Logo

Using Illustrator, open your logo file or the practice file "singstudio\_logo.ai" (You can use the practice file provided for this tutorial, but please replace it with your own logo for the final project.)

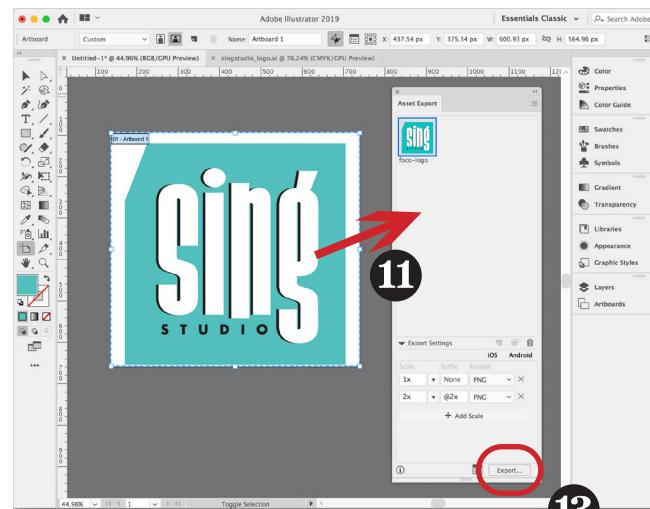
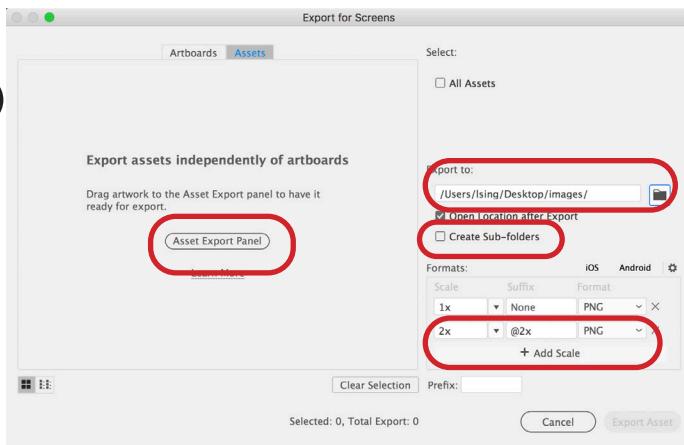
1. Remove trim marks or any additional text.
2. Change ruler units to pixels (View > Rulers and then right click in the ruler to change)
3. If not already done, **create outlines** of your type (command A > create outlines)
4. Size your logo (600 to 700 pixels wide is a good start for this tutorial). You can always return to this file and resize as you wish. Remember to scale proportionally by holding the shift key.
5. **Group the elements** to be exported (command A > command G)
6. Double-click the **Artboard Tool**
7. In the Artboard Options dialog select **Fit to Artwork Bounds** from the pulldown menu. Click OK.





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8. Choose **Window > Asset Export**
9. Click the icon at the bottom of the Asset Export window to launch the **Export for Screens** dialog



10. In the Export for Screens dialog box
  - » **Uncheck** the 'create subfolders' box
  - » Click the **Add scale** button to add a **2x scale format**
  - » Specify the location for the download to your **images** folder inside the **UPLOAD...** folder
  - » Click on **Asset Export Panel** button to return to the **Asset Export** window.
11. Drag and drop the grouped element from the artboard to the upper area of the **Asset Export** window. You want to generate two PNG files: a regular size (1x) and one that is twice the size (2x). The file named **xxx@2x.png** can be used as a retina graphic.
12. Before exporting, **rename your logo by clicking in the file name in the Asset Export window**. Remember to use lowercase and no spaces for file names.
13. Click on **Export....** then navigate to your **images** folder inside your **UPLOAD...** folder to save both images

## STAGE 2 – Working with HTML

1. Put **index.html** and **styles-contact.css** into the **UPLOAD..** folder. In **VS Code**: Click on the Explorer Icon (top icon in upper left). Choose “Open Folder” and navigate to the **UPLOAD..** folder and click Open. In the list of files at the left, click **index.html** and **styles-contact.css** to open them. Follow the instructions below. The code that is light gray already exists in the file. Type in the code that is in black. Do not copy and paste as you might experience problems with quotes. Use lowercase always and be careful with punctuation. It’s okay to use uppercase for the title of your page and alt text only.
2. The code highlighted in **YELLOW** requires you to customize it with the name of your files.

```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<!-- THE TITLE WILL APPEAR IN THE BROWSER WINDOW OR TAB -->
<title> Your FoCo Name </title>
</head>
<body>

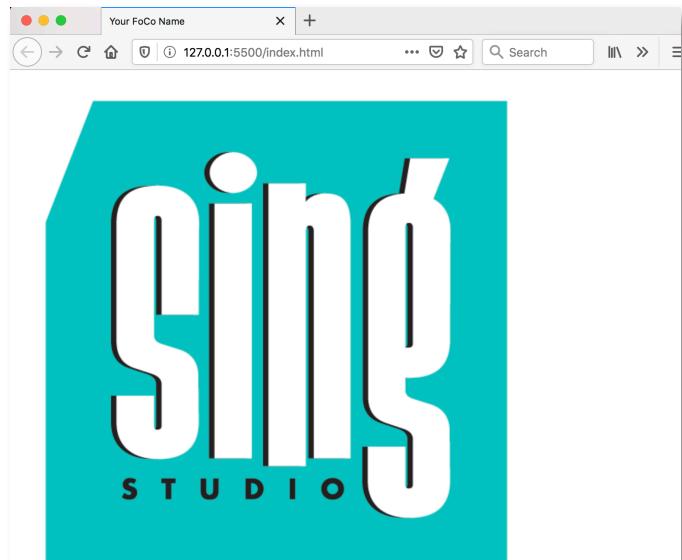
<div class="center">
    
    <h1>Hello, welcome to my FoCo Page.<br> This is an h1 heading.</h1>
    <h2>This is an h2 heading</h2>
    <p>This is a paragraph, you'll notice it's smaller.</p>
</div> <!--end of center div-->

</body>
</html>
```

### IMPORTANT

Throughout the tutorial, Save and Preview using the Live Server extension in VS Code.

Your web page should resemble the screenshot to the right, however, your FoCo logo should appear instead of mine. Remember that you can, and you should, resize the logo for your final project.



Hello, welcome to my FoCo Page.  
This is an h1 heading.

This is an h2 heading.

This is a paragraph, you'll notice it's smaller.

## STAGE 3 – Linking CSS to HTML

1. The information in **pink** is “for your information only,” no need to type it in.
2. Continue to enter the code in black.
3. **Add your own fonts using Google Fonts or Adobe Fonts to the <head> of this document (index.html).** Refer to the reference links found on Canvas for using Google fonts or Adobe fonts.

```
<!DOCTYPE HTML>
<html>
<head>
<!-- FONTS -- Choose a Google or Adobe Font and copy and paste the embed code right
after this HTML comment, you'll also need to add it to each of the selectors in the
CSS which is on the next page --&gt;

&lt;meta charset="UTF-8"&gt;
&lt!-- THE TITLE WILL APPEAR IN THE BROWSER WINDOW OR TAB --&gt;
&lt;title&gt; Your FoCo Name &lt;/title&gt;

<!-- THIS LINKS YOUR CSS STYLESHEET TO YOUR HTML PAGE --&gt;
&lt;link rel="stylesheet" type="text/css" href="styles-contact.css"&gt;
&lt;/head&gt;
&lt;body&gt;</pre>
```

4. Open the **styles-contact.css** file in **VS Code** and look for the three **type selectors** (h1, h2, p), add the appropriate code to each of the selectors. You can use more than one typeface, but consider readability and legibility.

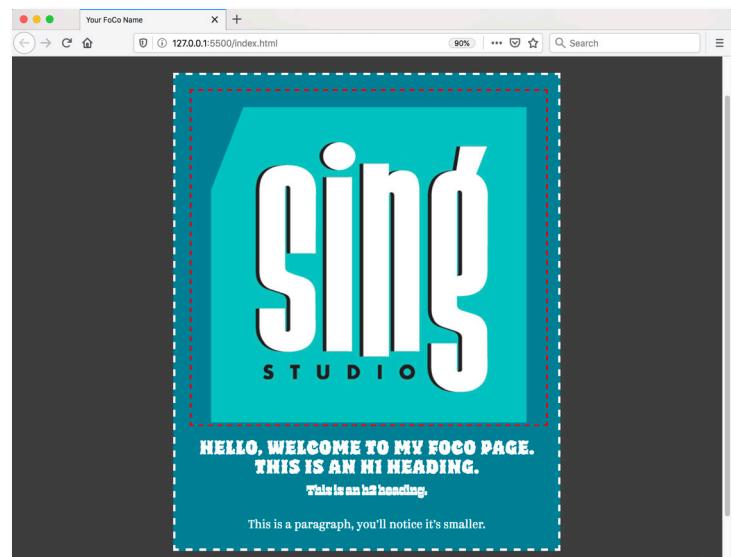
```
...
h1 {
    /* COPY AND PASTE THE FONT-FAMILY CHOSEN FROM GOOGLE OR ADOBE FONTS */
    font-family: 'XXXXXXXXXXXXXX', xxxxxxxx,
    font-size: 2em;
    margin: 0px auto 10px auto;
    color: #fff;
}

h2 {
    /* COPY AND PASTE THE FONT-FAMILY CHOSEN FROM GOOGLE OR ADOBE FONTS */
    font-family: 'XXXXXXXXXXXXXX', xxxxxxxx,
    font-size: 1.5em;
    line-height: 1.4;
    color: #fff;
    padding: 0px 0px;
    margin: 0px auto 25px auto;
}

p {
    /* COPY AND PASTE THE FONT-FAMILY CHOSEN FROM GOOGLE OR ADOBE FONTS */
    font-family: 'XXXXXXXXXXXXXX', xxxxxxxx,
    font-size: 1.2em;
    line-height: 1.6;
    color: #fff;
}
```

**Save and Preview** using the Live Server in VS Code.

**Note:** These fonts will probably look different than yours. Use something obvious or ugly so you know it's working (but remember to change them for your final project)



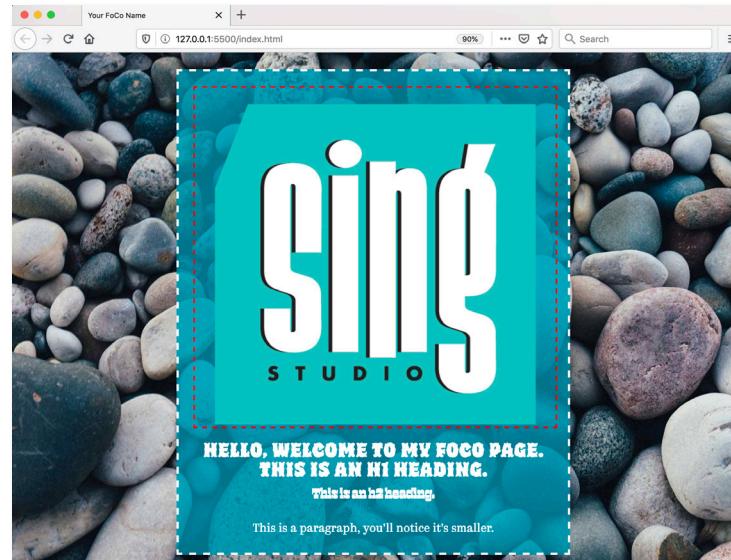
## STAGE 4 – Adding a Background Image

1. Keep **styles-contact.css** open in VS Code. You are going to link the background photo in the **body**.
2. **Delete the background color property** in the CSS as shown below and add the background properties that will link your background image.
3. **Notice the highlighted copy and change to the path name of your background image.**

```
...  
html, body {  
    height: 100%;  
    width: 100%;  
    padding: 0;  
    margin: 0;  
    background: #404040;  
    background-image: url("images/name-of-your-background.jpg");  
    background-size: cover;  
    background-repeat: no-repeat;  
    background-attachment: fixed;  
    background-position: center;  
}  
...
```

**Save and Preview** using the Live Server in VS Code.

**Note:** Make your browser window smaller and larger and notice how the image resizes. The **background-size: cover** property tells the browser to make sure the image always covers the entire container, even if it has to stretch the image or cut a little bit off one of the edges.

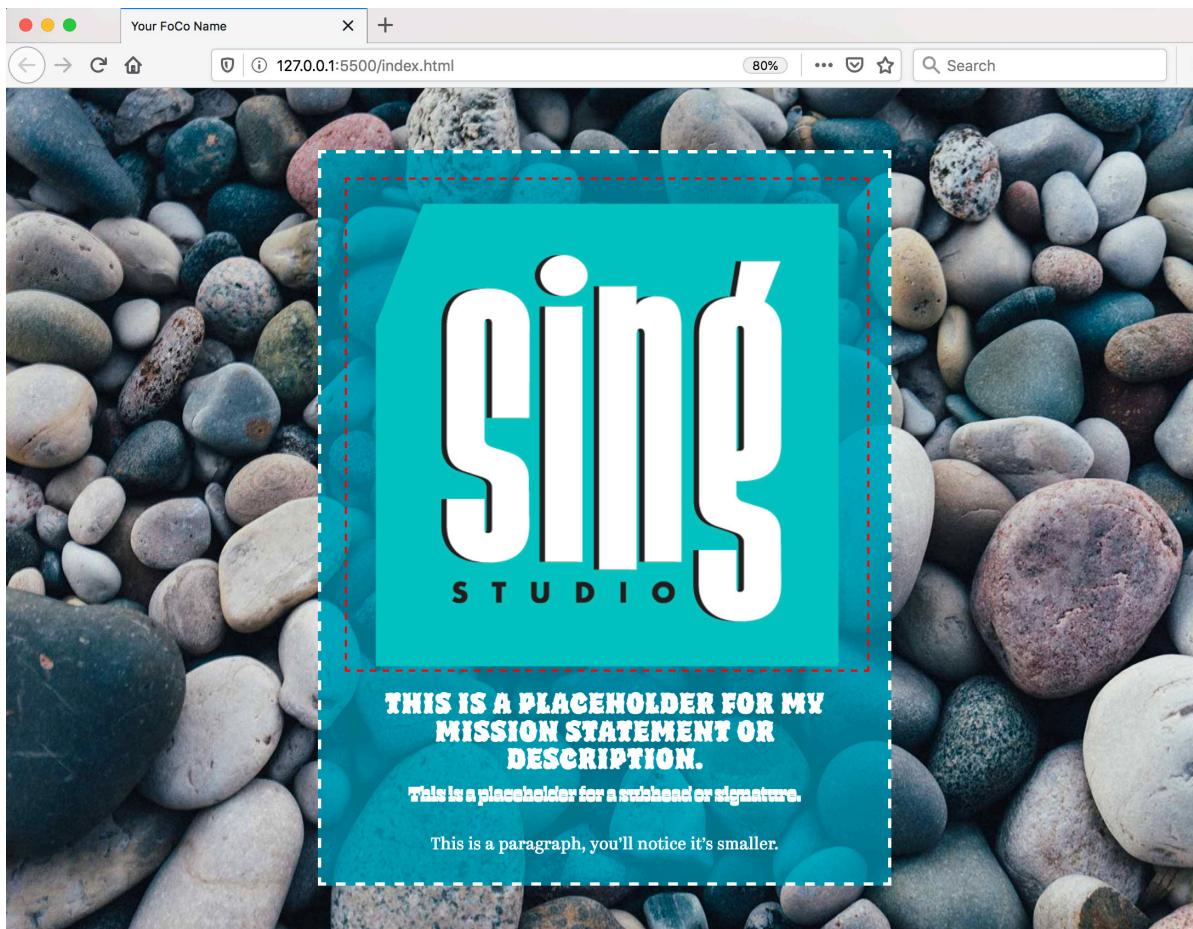


## STAGE 5 – Adding Copy

1. Edit `index.html` by deleting the existing copy in the `<h1>` and `<h2>` and adding the black copy shown below. In your final project you will replace the placeholder copy with real copy.
2. The `<p>` element should be styled if you added a font to your CSS.

```
...
<div class="center">
  
  <h1>This is a placeholder for my mission statement or description.</h1>
  <h2>This is a placeholder for a subhead or signature.</h2>
  <h1>Hello, welcome to my Foco Page.<br> This is an h1 heading.</h1>
  <h2>This is an h2 heading</h2>
  <p>This is a paragraph, you'll notice it's smaller.</p>
</div>  <!--end of center div-->

</body>
</html>
```



**Save and Preview** using the Live Preview feature in VS Code.

## STAGE 6 – Adding Links

1. Edit `index.html` by adding the black copy shown below. This is an unordered list `<ul>` and each list item `<li>` will eventually be styled with CSS.
2. **Notice the highlighted copy; this needs to be changed to the path name to your brochure PDF, a URL of your choosing, and your email address.** (You'll need to save the final PDF of your FoCo brochure in the UPLOAD... folder with no crop marks or bleeds.)
3. Notice that the URL link will open in a new browser window because we're using `target="_blank"`.

```
<!DOCTYPE HTML>
<html>
<head>
<!-- FONTS -- Choose a Google Font or Adobe Fonts font and copy and paste the code right after this HTML comment, you'll also need to add it to each of the selectors in the CSS which is on the next page --&gt;

&lt;meta charset="UTF-8"&gt;
&lt!-- THE TITLE WILL APPEAR IN THE BROWSER WINDOW OR TAB --&gt;
&lt;title&gt; Your FoCo Name &lt;/title&gt;

&lt!-- THIS LINKS YOUR CSS STYLESHEET TO YOUR HTML PAGE --&gt;
&lt;link rel="stylesheet" href="styles-contact.css"&gt;
&lt;/head&gt;
&lt;body&gt;

&lt;div class="center"&gt;
    &lt;img id="logo" src="images/foco-logo.png" alt="YOUR FOCO NAME LOGO"&gt;
    &lt;h1&gt;This is a placeholder for my mission statement or description.&lt;/h1&gt;
    &lt;h2&gt;This is a placeholder for a subhead or signature.&lt;/h2&gt;
    &lt;p&gt;This is a paragraph, you'll notice it's smaller.&lt;/p&gt;

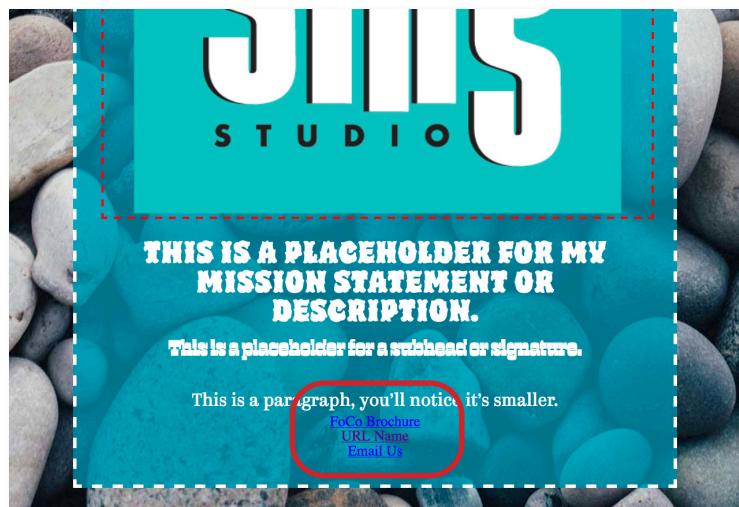
&lt;nav&gt;
    &lt;ul&gt;
        &lt;li&gt;&lt;a href="foco-brochure-filename.pdf"&gt; FoCo Brochure &lt;/a&gt;&lt;/li&gt;
        &lt;li&gt;&lt;a href="http://www.calpoly.edu" target="_blank"&gt; URL Name &lt;/a&gt;&lt;/li&gt;
        &lt;li&gt;&lt;a href="mailto:your-email-address-goes-here"&gt; Email Us &lt;/a&gt;&lt;/li&gt;
    &lt;/ul&gt;
&lt;/nav&gt;

&lt;/div&gt;  &lt;!--end of center div--&gt;

&lt;/body&gt;
&lt;/html&gt;</pre>
```

**Save and Preview** using the Live Preview feature in VS Code.

Notice the links are underlined and blue which is default (ugly and unprofessional). You're going to change this in the next step but you can confirm that the links are working.



## STAGE 7 – Customizing your <nav> <ul> and <li> items

- As you can see the <nav> <ul> and <li> items are default blue links with underlines (**default blue links are not acceptable for this project**) so you'll need to style the elements.
- Add the following code to your CSS file (**styles-contact.css**), right below the <p> styling (shown in gray). CSS comments are shown in cyan.

```
p {  
    font-family: YOUR FONT GOES HERE;  
    font-size: 1.2em;  
    line-height: 1.6;  
    color: #fff;  
}  
  
nav{  
    font-family: CHOOSE YOUR FONT FAMILY;  
    font-size: 1.2em;  
    width: 400px; /* This is the width of the nav element */  
    margin: 0 auto; /* This centers the entire nav element inside  
    the center div */  
    border: dashed turquoise;  
    border-width: 3px 0; /* This puts a 3 pixel border on top and bottom of the  
    nav element, the zero eliminates the left and right sides of the border */  
    text-align: center;  
    margin-top: 2em; /* This adds a bit of space above the nav element */  
}  
  
nav li{  
    display: inline; /* This allows  
    the block level elements to  
    display next to one another */  
}  
  
nav a{  
    display: inline-block;  
    padding: 10px; /* This adds space  
    around each of the links */  
}  
  
a{  
    color: #444;  
    text-decoration: none; /* This  
    removes the underline */  
    font-weight: bold;  
}  
  
a:hover{  
    color: black;  
    background: pink; /* This is the  
    pink hover effect -- you'll want to  
    change this! */  
}
```



You can research different ways to style your list. This article outlines a few ideas:

<http://designshack.net/articles/css/5-simple-and-practical-css-list-styles-you-can-copy-and-paste/>

Here are two practical and easy methods including the above article (as shown on CodePen):

<https://codepen.io/secondfret/pen/GoqLK>

<https://codepen.io/secondfret/pen/mIBqf>

Mouse over the links to see the hover effect! You can copy and paste the code into yours.

Your final web page should look nothing like this tutorial!

## **STAGE 8 – Uploading your Web Files**

1. Once you've completed your web page you'll upload your files to github.com to make it live and verify everything is working. Go to github.com and sign up for an account.
2. Follow these instructions for hosting through GitHub pages: [Hosting with GitHub](#)

### **FoCo 4 Web Page Checklist (20 points possible)**

You need to do the following for the final web page project (bare minimum). Check the Assignment Description on Canvas for other requirements.

- Replace the background image with your own optimized image (3 pts)
- Include your optimized FoCo logo and corresponding alt text (3pts)
- Customize your FoCo Mission Statement or Description using different type sizes and styles.  
Keep readability and legibility in mind (3pts)
- Confirm your 3 links are working properly (brochure, url, email) and do not have default styles (3pts)
- Remember, your final web page should look nothing like this tutorial! Try different border effects and colors for the center div, or remove the center div and try something different! (3pts)

Here are a few links showing different types of border effects using CSS:

[https://www.w3schools.com/css/css\\_border.asp](https://www.w3schools.com/css/css_border.asp)

[https://www.w3schools.com/css/css\\_border\\_rounded.asp](https://www.w3schools.com/css/css_border_rounded.asp)

- Custom title in the <head> of the html document (2 pts)
- Upload your files to GitHub and submit your URL through the FoCo 4 Web Page Assignment Page (3pts)