Challenge: Nimble Gnome Consulting (Bootstrap)

Work through the following steps and upload your work when done.
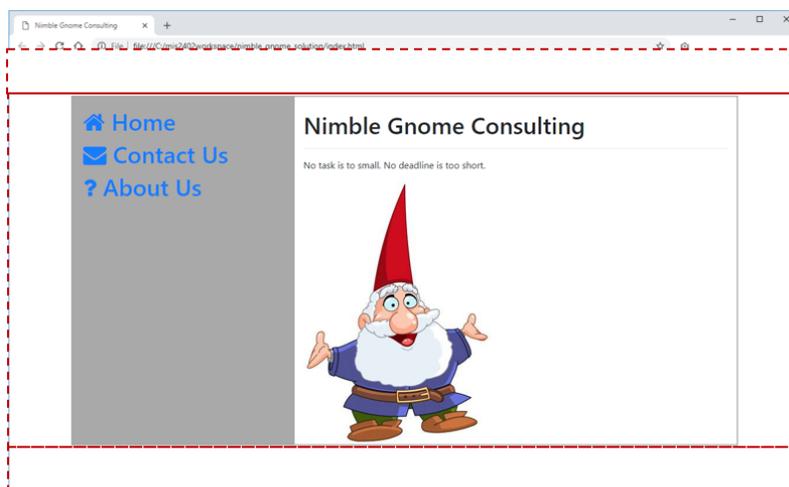
Getting the project file

1. Using Windows file explorer (or Mac OS finder) open your mis2402workspace

2. Your instructor will provide you with a zip file named: nimble_gnome.zip

3. Open the zip file. Drag the nimble_gnome folder in to the mis2402workspace folder.

4. Now, open VS Code. Navigate to the nimble_gnome folder using the VS Code Explorer panel.

5. Observe the contents of index.html. It contains the structure of a basic HTML document. It also contains a collection of <script> and <link> tags that reference external CDNs. Students are not responsible for memorizing the CDN URLs! However, students should be familiar with the general syntax of the <script> and <link> tags.

Adding in the Bootstrap Grid System

6. Observe the following screenshot. This is what our page will look like *when we are done*. Your instructor will also demonstrate the completed activity in class.

7. Our approach to get this effect will be to add in three rows. The top row will contain a 12 span column. It will be empty. The middle row will hold two columns, one for navigation and the other for content. The last row will also hold a single 12 span column. The last row is also empty.

8. Let's start editing our HTML by adding in a <div> of class container. The "container" class was defined for us by Bootstrap. Our Bootstrap layout won't work at all without the container div!

```html
<div class="container">
  <h1>Nimble Gnome Consulting</h1>
  <hr>
  <p>No task is to small.  No deadline is too short.</p>
  <div>
    <img src="img/happy-gnome.jpg">
  </div>
</div>
```

9. Now let's add in the three rows. Notice how we are being careful to indent here. This helps us keep track of what HTML tags are nested inside of other tags.

```html
<div class="container">
    <div class="row"></div>
    <div class="row">                          ← ROW 2 starts here.
        <h1>Nimble Gnome Consulting</h1>
        <hr>
        <p>No task is to small.  No deadline is too short.</p>
        <div>
          <img src="img/happy-gnome.jpg">
        </div>
    </div>                                      ← ROW 2 ends here.
    <div class="row"></div>
</div>
```

10. Our layout won't be complete without columns. Let's add in a 12 span column at the top and bottom.

```html
<div class="container">
    <div class="row"><div class="col-sm-12"> </div></div>
    <div class="row">
        <h1>Nimble Gnome Consulting</h1>
        <hr>
        <p>No task is to small.  No deadline is too short.</p>
        <div>
          <img src="img/happy-gnome.jpg">
        </div>
    </div>
    <div class="row"><div class="col-sm-12"> </div></div>
</div>
```

11. Notice that we put a blank space ( ) inside those top and bottom columns. This isn't strictly necessary. But it is a good practice to always have some content inside of a <div> tag.
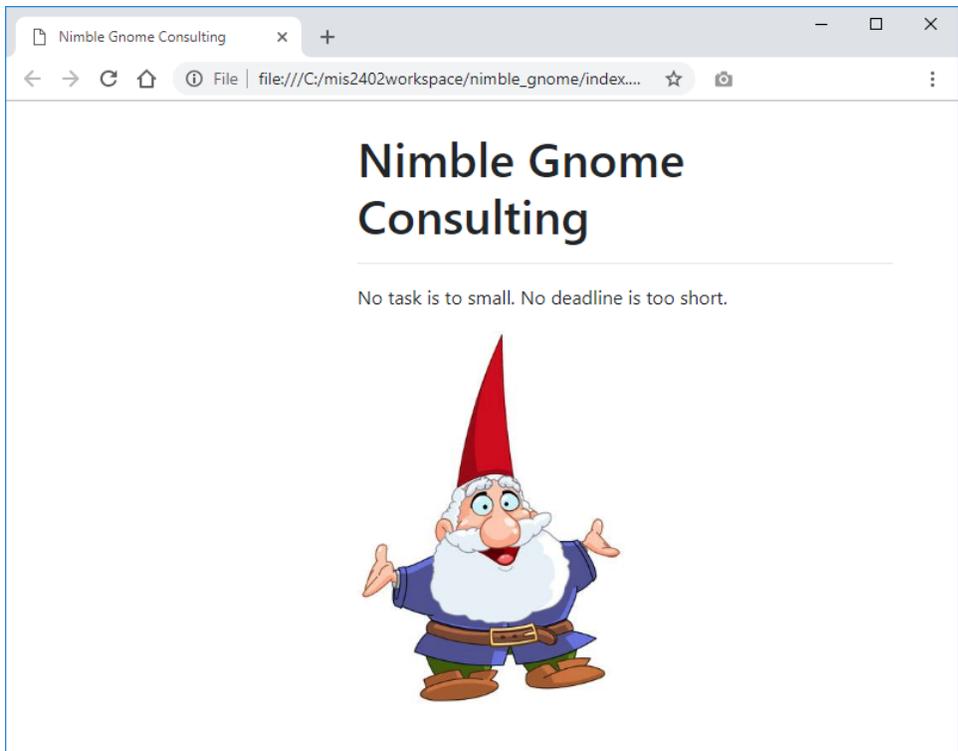
12. Now we'll worry about the middle row. Our middle row will have two columns. One 4 span column is for navigation. The other 8 span column is for content. Note that 4 + 8 = 12. In Bootstrap the column spans should add up to 12.

```
<div class="row">
    <div class="col-sm-4">
      <!-- Navigation will go here-->
    </div>
    <div class="col-sm-8">
    <h1>Nimble Gnome Consulting</h1>
    <hr>
    <p>No task is to small.  No deadline is too short.</p>
    <div>
      <img src="img/happy-gnome.jpg">
    </div>
  </div>
</div>
```

13. Notice that we put an HTML comment inside of the four span column. Again, this isn't strictly necessary, but it sure is nice to see that in the code so that you, the programmer, know what sort of content should go in there.

14. We've typed quite a lot. Now would be a really good time to check our work. Preview index.html in Chrome. It should look like this:

15. We are making progress! It is always a good idea to stop every few minutes, save your work, and see what your pages look like in a browser. Try re-sizing the browser window. You should note that the page is already responsive. Text and images automatically re-size and relocate to accommodate the browser window, no matter how large or small it is. These automatic changes are the result of our "responsive web design" or RWD for short. Using the Bootstrap grid layout did just about all of that for us.

16. Now look at gnome.css as found in the css folder. This file has already been linked to your index.html document. (Take a peek if you don't believe me, the <link> is right there inside the <head> tag!)

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17. We would like the background color of the navigation column to be "darkgray". Edit gnome.css accordingly.

```
.gnome_navigation{
    background-color: darkgray;
    color: white;
    min-height: 300px;
    padding: 20px;
}
```

18. While you are still gnome.css, notice that there have been some style attributes applied to the <label> and <img> HTML tags. There are also two classes defined: gnome_navigation and gnome_main.

    DISCUSS: What's the difference between a CSS class selector and a CSS id selector?

19. Save your work in gnome.css. Go back to working on index.html. Let's add in those classes.

```
<div class="row">
    <div class="col-sm-4 gnome_navigation">
      <!-- Navigation will go here-->
    </div>
    <div class="col-sm-8 gnome_main">
            <h1>Nimble Gnome Consulting</h1>
    <hr>
    <p>No task is to small.  No deadline is too short.</p>
    <div>
      <img src="img/happy-gnome.jpg">
    </div>
  </div>
</div>
```

    DISCUSS: What just happened there? Notice that it is possible for a tag to have two or more classes. The classes of col-sm-4 and col-sm-8 were defined by the Bootstrap framework. The gnome_navigation and gnome_main classes were written by hand and defined in gnome.css.

20. Save and preview your work again. It's getting better!

21. Now we are going to add in some hyperlinks into the navigation column. Start by adding in the <h1> and <a> tags as shown below.

```
<div class="col-sm-4 gnome_navigation">
    <!-- Navigation will go here-->
    <h1><a href='index.html'>Home</a><h1>
    <h1><a href='contact.html'>Contact Us</a><h1>
    <h1><a href='about.html'>About Us</a><h1>
</div>
```
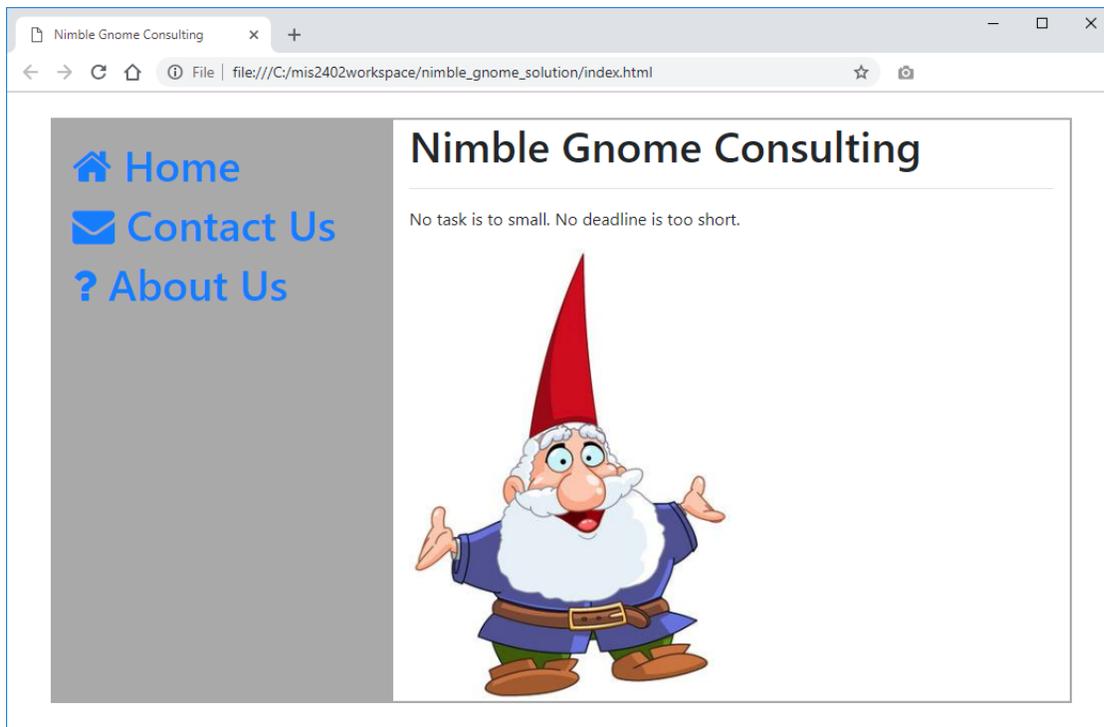

22. Now let's add in some FontAwesome icons. Notice that we are putting the icon tag inside of the anchor tags you wrote in the last step. That way, if a user clicks on either the icon or the text, they will be directed to the href attribute.

```
<div class="col-sm-4 gnome_navigation">
    <!-- Navigation will go here -->
    <h1><a href='index.html' ><i class="fa fa-home"></i> Home</a><h1>
    <h1><a href='contact.html' ><i class="fa fa-envelope"></i> Contact Us</a><h1>
    <h1><a href='about.html' ><i class="fa fa-question"></i> About Us</a><h1>
</div>
```
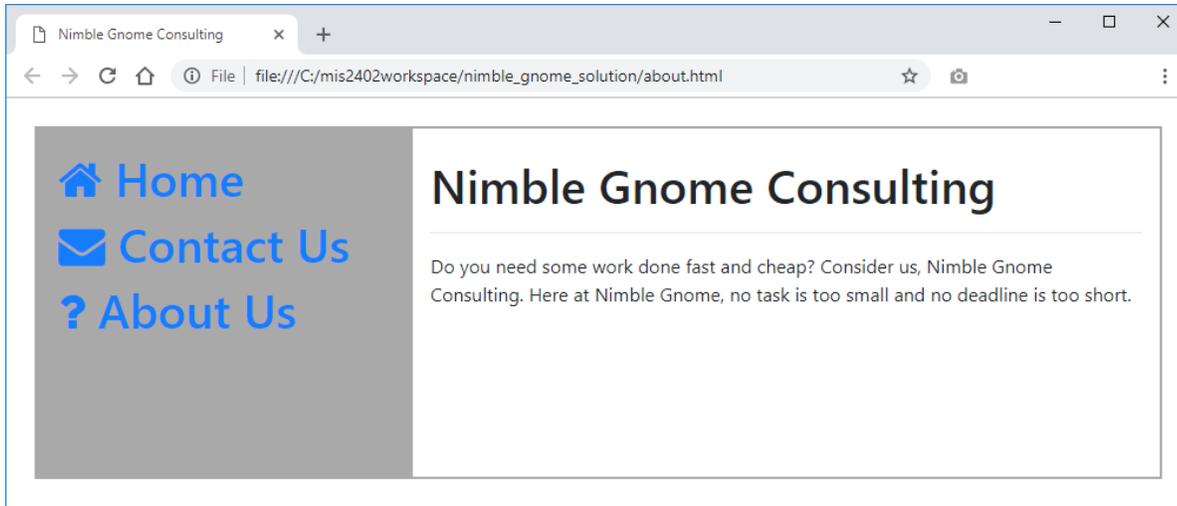
Here's the finished result:

CONTINUED…

On your own

23. In Visual Studio, right click on index.html and use the Copy/Paste/Rename features to create new files named about.html and contact.html.

24. The about.html page is very simple. You should be able to reproduce the screenshot shown below easily.

25. The contact.html page holds an HTML form. If you haven't done so already, you should watch the assigned Lynda videos on <form> <label> and <input>.

The <form> tag should post to the URL https://misdemo.temple.edu/demo_method/handler/ using the GET method.

TIP 1: Don't leave the "/" off the end of "handler/" in the URL above. It needs to be there.

TIP 2: Be sure to use a label tag around the text "Your name:" and "Your e-mail address:". Your <label> tag should make proper use of the "for" attribute.

TIP 3: The Continue button shown in the following diagram was created with this HTML:

```
<input type="submit" class="btn btn-primary" value="Continue">
```

The classes of "btn" and "btn-primary" are Bootstrap classes!

TIP 4: Take note of what should happen when the "Continue" button is clicked.

CONTINUED…

26. You do not need to create the HTML in the "Now handling a GET request" screenshot. If you set the **action** and **method** attributes of your <form> tag this page will appear when you submit the form. (Assuming you have an internet connection of course!)

Note the **Tag NAME** column in the table depicted above. Make sure that your results match the screenshot. If they don't, go back to contact.html and look at the **name** attribute of your input tags.

27. Upload your nimble_gnome folder to your account on misdemo.temple.edu.