LAB 2: Adding Responsive Features

In this lab, you will continue to build on the HTML from the previous lab adding in some responsive features to the site. You will learn to use media queries to apply style rules that are based on the width of the screen. In particular, you will learn:

1. To display elements conditionally based on the width of the screen.
2. To adjust the column structure based on the width of the screen.

Let's get started by creating a title header that does not display on screens with a width of less than 540 pixels:

1. Copy your code from lab 1 and add a title at the very beginning of the main div using an 'h1' tag. Give your title header an id of 'title'.

```
1.      <div data-role="main">
2.          <h1 id="title">I'm a respons
    ive title!</h1>
```
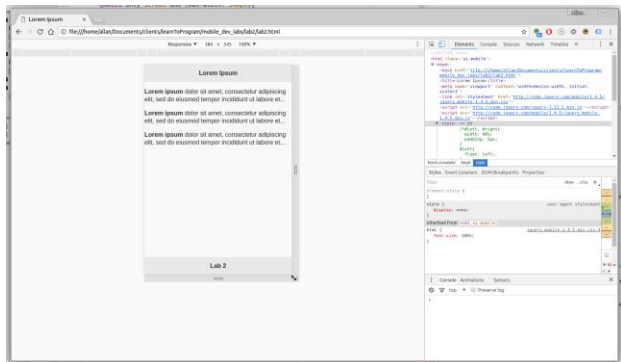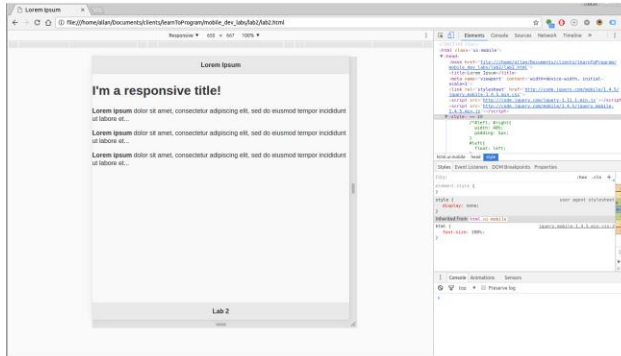
2. Inside the style tags, add a media query with a max width of 540 pixels.

```
1.  <style>
2.  @media only screen and (max-
    width: 540px){
3.  #title {
4.  display: none;
5.          }
6.          }
7.  #footer{
8.     ….
9.          }
10. </style>
11. </head>
12. <body>
```

6. Inside the media query add a CSS rule that sets the display of the title to 'none'.

```
1.  <style>
2.    @media only screen and (max-
    width: 540px){
3.      #title{
4.        display: none;
5.      }
6.    }
```

7. To test your new responsive title, open up the mobile emulator in your chrome browser and set the device to 'responsive'. Drag the lower right hand corner of the emulator so that the screen is less than 540 pixels wide. Next change the screen width to be greater than 450 pixels wide. You should see the header of the site disappear and reappear as you do this.

```
2.          <div id="left">
3.              <p><strong> Lorem ipsum ….
4.              <p><strong> Lorem ipsum ….
5.              <p><strong> Lorem ipsum ….
6.          </div>
```

Challenge Yourself:

1. Add a responsive image to your HTML page that displays only when the screen is wider than 540 pixels.
2. Make the the mobile header and footer of the page dissapear when the screen is greater than 541 pixels wide.

Next, let's use media queries to modify a multiple column layout based on the screen width. First, you will need create a two column layout in your HTML site.

8. Create a new div with an id of 'left' inside the 'main' div The 'left' div should contain the three paragraphs that are already inside the 'main' div, but not the title header.

```
1.
        <h1 id="title"> I'm a responsive tit
        le </h1>
```

9. Copy and paste the 'left' div along with the paragraphs it contains. Give the new div an id of 'right'. The 'right' div should be just beneath the 'left' div in the HTML document.

```
1.  <div id="left">
2.      <p><strong> Lorem ipsum ….
3.      <p><strong> Lorem ipsum ….
4.      <p><strong> Lorem ipsum ….
5.  </div>
6.  <div id="right">
7.      <p><strong> Lorem ipsum ….
8.      <p><strong> Lorem ipsum ….
9.      <p><strong> Lorem ipsum ….
10. </div>
```

10. Apply CSS rules to structure the left and right divs as two columns side by side.

```
1.   <style>
2.  #left, #right{
3.     width: 48%;
4.     padding: 5px;
5.  }
6.  #left{
7.     float: left;
8.  }
9.  #right{
10.    float: right;
11. }
12.
13. @media only screen and (max-
    width: 540px){
14. }
15. #footer{
16. }
17. t;/style>
```
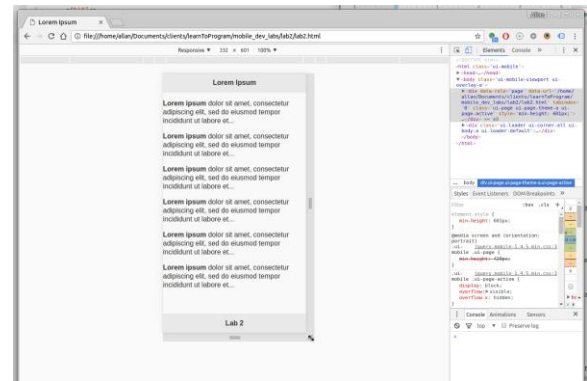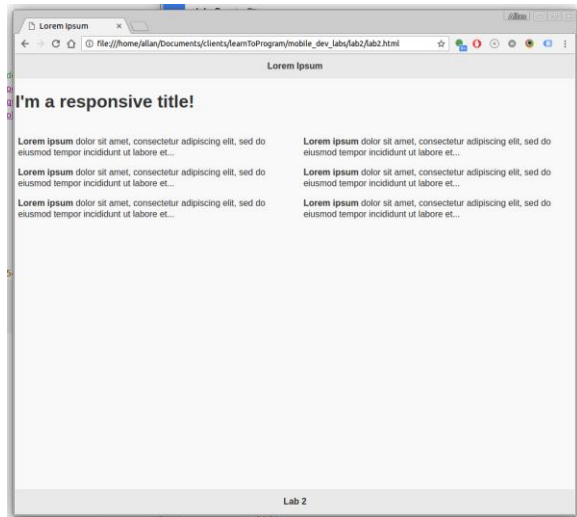
Open up the HTML page in your browser. You should see two columns of paragraphs. Make sure your screen is wide enough to display the two column layout properly.

10. The column structure looks good on wider screens, but it doesn't display well on narrow screens. Inside your 540px media query, add CSS to 'undo' the two column structure.

```
1.    <style>
2.        @media only screen and (max-
   width: 540px){
3.            #left, #right{
4.                width: 100%;
5.                float: none;
6.                padding: 0px;
7.            }
8.        }
9.    </style>
10. </head>
11. <body>
```

Now, as you reduce the screen below 540 pixels, you should see the layout switch from two columns to a single column.

Challenge Yourself:
-Experiment with 'vw', 'vh' and 'vmin' to set the font size for the mobile browser.