**About W3.CSS Responsive Classes**

This exercise shows how to use a few W3.CSS classes to create a responsive page template.

To do this exercise, download all of the files in this folder including the images to view the responsive page properly.

Open the w3-schools-responsive.html page in a markup program like Brackets.io or Dreamweaver and also open it in a browser. You will see a photo portfolio website with several rows of images arranged in gallery rows. (Click on the Praying Mantis to see how you can use links to open a higher resolution of an image).

**A Few Things to Notice**

First, look in the <head> section for a <link> that looks like this:

<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">

This is the <link> that calls the W3.CSS file. YOu will notice that there is a second <link> element that calls another CSS file called my-styles.css.

<link rel="stylesheet" href="my-styles.css">

You can have more than one stylesheet on an HTML document. When you have more than one, the first stylesheet is applied to your HTML markup first, then the second one and the next one. If there are any styles in the stylesheets that are similar, the second one will override the first. For example, If the first stylesheet has <h1> headings set to a dark blue font, but the second one has it set to dark green, the <h1> headings will be rendered as dark green.

Look for comments in the HTML markup.

<!-- Comments look like this -->

Comments in HTML let you write notes to yourself or to other web developers who view your markup.

**W3.CSS Classes**

Look for classes in the markup that start with “w3-”. These are classes that are called by the w3.css stylesheet. View the file in the browser. The paragraphs explain how the W3.CSS styles affect each row following the explanation.

We are only using three W3.CSS styles on this page. There are three rows of images that use different combinations of row styles to create a gallery page. Each row has three images. Each image is part of a set of markup that includes a heading and a paragraph holding the image. The heading and image are contained in an <article/> element that looks like this:

<article class="w3-col s12 m4 l4">

<h3>Grass Snake</h3>

<p><img src="Vine-Snake.jpg" /></p>

</article>

Each article is using four classes, one that defines the element as a column and three more that show how the width of each column on three different sizes of viewports (device windows).

w3-col Defines the article as a column

s12 Small screens will display each article as 12 columns wide (or 100%)

m4 Medium screens like tablets will display each article as 4 columns wide,

rendering 3 columns across.

l4 Large screens like desktop computers or TV displays will also render

each article as 4 columns wide or 3 across. If we set it to l3, it would render the articles as 3 columns wide or 4 across.

When you open the file in a desktop browser, you can change the width of the screen to very narrow to see how it behaves. You can also open the file on a phone and see if it changes behavior when you change the orientation from portrait to landscape.

Another set of W3.CSS classes defines how the row is rendered.

w3-row Defines the container as a row with no padding.

w3-row-padding Creates a row with 8 pixels of left and right padding around each

column. (This creates 16 pixels of space between columns.)

If you use the w3-container and w3-row classes together, it adds 16 pixels of padding around the entire row, but not between the columns.

There are many W3.CSS styles you can use to create responsive layouts for your web page. In addition to the small, medium and large widths for various screen sizes, you can also define widths based on fractions of a viewport.

|  |  |
| --- | --- |
| w3-half | Occupies 1/2 of the window on medium and large screens and full width on small screens |
| w3-third | Occupies 1/3 of the window (on medium and large screens) |
| w3-twothird | Occupies 2/3 of the window (on medium and large screens) |
| w3-quarter | Occupies 1/4 of the window (on medium and large screens) |
| w3-threequarter | Occupies 3/4 of the window (on medium and large screens) |
| w3-rest | If you only define some of the columns using one of the above classes, you can use w3-rest to define the rest of the column width. |

Read more about W3.CSS responsive styles at <https://www.w3schools.com/w3css/w3css_responsive.asp>

**Responsive Tables**

Since you are seeing “row” and “col” throughout this exercise, you ar probably wondering if you can use w3-row and w3-col to create responsive tables. Yes. You can. I will go over tables in a different lecture.