# CS80 Internet Programming Section 4109
# Deadline March. 24, 2019 by 23:59 PM PST

**Assignment 3 (75 Points):** CSS Flexbox and Media Query

## Description:

The third assignment will require the use of features from chapters 4 and 5 of our textbook to create a simple responsive website using CSS's flexbox property and **@media rule** for a device specific **media query**. We will write CSS to accommodate for three different flex layouts that depend on the screen size of the device viewing the web-page. There will be three basic designs: single column, three column and six column layout. The HTML will be arranged using HTML5's semantic elements (e.g. header, section, footer, etc.). We will restrict our web-page to have only three areas: a header, content section, and a footer. Each section will be formatted using CSS and CSS selectors (e.g. classes, element, id, etc.).

We will use an external CSS file that will reside in the same directory as our HTML file. Use the **link** attribute discussed in sections 5.15 & 5.17 of our textbook. Figure 1 show all three responsive versions.

Your files will be uploaded to the assignment 3 canvas entry in a zip archive containing two files, **A03.html, A03.css**. The HTML file and CSS file and not screenshots must be submitted.

**Where to do the assignment**
You can do this assignment on your own computer, or in the SMC labs. In either case, ensure your file loads in a web browser (e.g. Safari, Firefox, Chrome, etc.). Use the filenames **A03.html and A03.css** or else points will be deducted.

**Submitting the Assignment**
Include your name, the assignment number, and the submission date in <**!- -HTML comments- -**> and \\**\* CSS Comments \***\\ at the top of your files. Submit the assignment on Canvas (`https://online.smc.edu`) by **uploading your .html and .css file** to the Assignment 3 entry as an attachment. Do not cut-and-paste html into a text window, hand in a screenshot of a browser or submit a text file containing only the text of your web-page.

**Saving your work**
Save your work often on a flash-drive or to the cloud (e.g., GoogleDrive, Microsoft OneDrive, Canvas, etc.). Always save a personal copy of your files (e.g. .htm, .php, .html, etc.). Do not store files on the lab computers. Keep copies of all files stored on ciswebs which is a temporary location for the Fall semester.

## HTML Assignment Details

Create an html file called **A03.html** that will include the following HTML elements:

- A **header** with the **class** attribute value set to "header"

- A **section** with the **class** attribute value set to "main_section"

  1. A **div** with the **class** attribute named 'row'
  2. Six **div**'s with the **class** attribute named 'col' each with three HTML images (see Figure 1a)

- A footer with the class attribute value set to "footer"

## CSS Assignment Details

Create a CSS file named **A03.css**. The only strict requirement for the assignment are the use of CSS's **flexbox** and the number of columns (i.e. 1, 3, and 6) used to create the appropriate layout for each display type. Refer to the book examples and online for more current examples of using flexbox. Suggested below is CSS that can be used with the HTML described above:

- Create CSS element selectors, and style at least the body HTML element.

- Create CSS class selectors named header, footer and main_section to style the corresponding HTML elements.

- Create a CSS class selector called row with the following properties:

  1. row will **display** as **flex** and will **wrap**.

- Create a CSS class selector called **column**

  1. **column** CSS selector will have a **padding** and the **flex** percentage. Use the **@media** rule to query the **screen** size **(e.g. min-device-width, max-device-width, min-width, max-width, etc.** and adjust the **flex** percentage value for each screen type. Look online for the various screen sizes (e.g. 480px, 1024px, etc.)
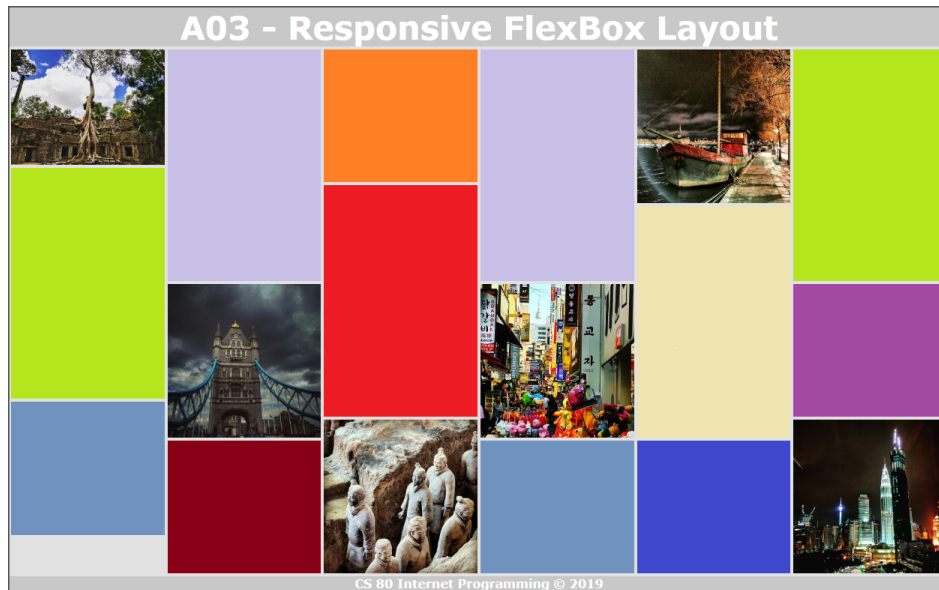
  The **column** CSS selector will be set to different **flex** percentages based on the media query rule.

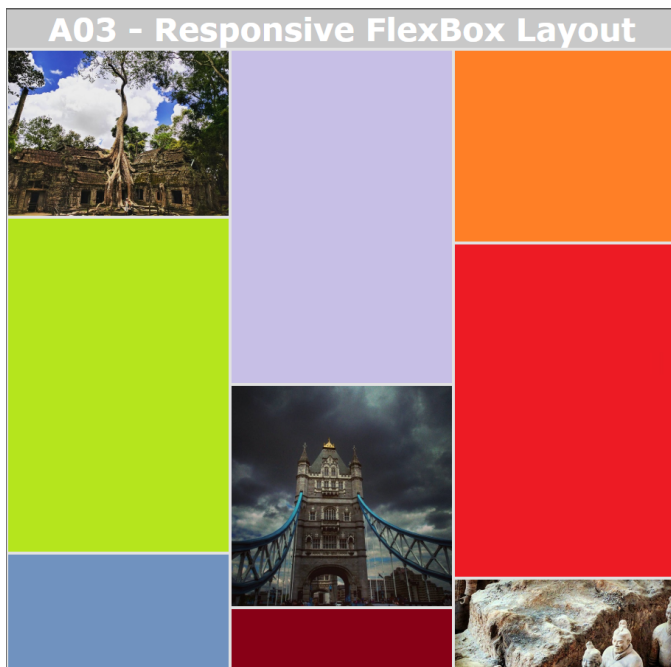  For example, to change the background of the body to white for small screens use:

  ```
  @media screen and (max-width: 480px)
  {
     body{ background-color:rgb(255,255,255);}
  }
  ```
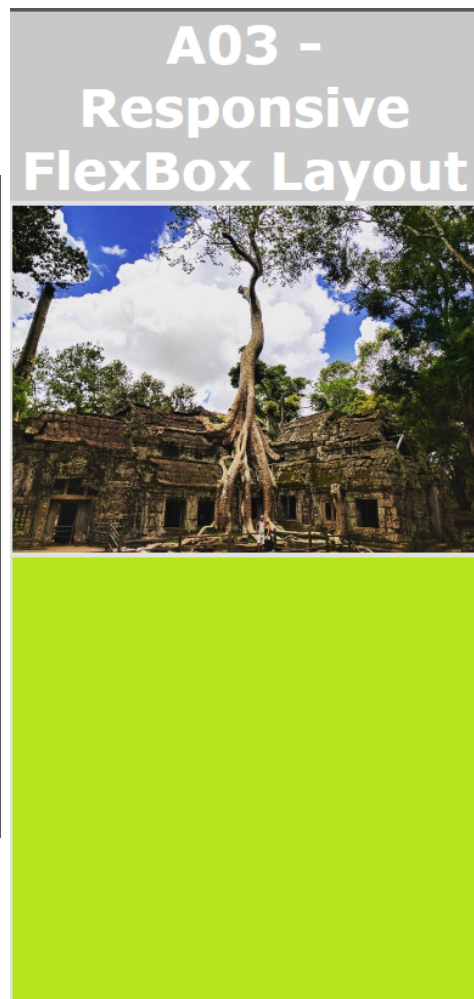
## Images

Several colored box and rectangle images are provide for the assignment. Use your own images if you want but note these must be included in your submission and they must be relative paths (e.g.\images\image1.jpg)

Large size browser view with 6 columns.



Medium size broswer view with 3 columns.



Small size broswer view with 1 column.

Figure 1: Example responsive layout using flexbox and media query for three different screen and browser widths.