#### Week 8 – Web Design – Sydney Campus

HOLMES

- 1. Explicit example 1 covering lecture 7
- 2. Explicit example 2 covering lecture 7
- 3. Step-by-step Instructions for Tutorial Week 8
- 4. Attendance & Tutorial Questions Recognising student participation and engagement specifically identifying those who are most actively involved!

Lecturer/Tutor: Dr. Farshid Keivanian



These HTML and CSS codes work together to create a simple, responsive webpage with a main article and an aside for additional tips, while ensuring that images are fluid and adapt to the container's width.



#### **HTML and CSS Code:**



```
cs_Styling and Arrays in Web Development.php 🗵 블 new 3 🗵 블 new 4 🗵 블 new 5 🗵 블 test.php 🗵 블 australian-cultural-festival.html 🗵 블 learn_web_design.html 🗵 블 Healthy Eating - Nutrition Page.html 🗵 👑 Respon
<!DOCTYPE html>
∃<html lang="en">
∃<head>
     <meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Nutrition Page</title>
     <link rel="stylesheet" href="Responsive Image and Container Styles.css">
</head>
=<body>
     <div id="container">
          <article>
              <h1>Healthy Eating</h1>
              Good nutrition is a lifestyle, not a diet. It starts with a new way of thinking about food.
              <aside>
                  <h2>Tips</h2>
                  Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.
              </aside>
          </article>
     </div>
</body>
-</html>
```

#### 1 <!DOCTYPE html>:

•This declaration defines the document type and version of HTML being used. Here, it specifies that the document is an HTML5 document.

#### 2 <html lang="en">:

•The root element of the HTML document. The lang="en" attribute indicates that the content is in English.



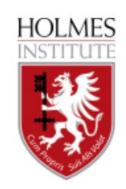
```
cs_Styling and Arrays in Web Development.php 🗵 블 new 3 🗵 블 new 4 🗵 블 new 5 🗵 블 test.php 🗵 블 australian-cultural-festival.html 🗵 블 learn_web_design.html 🗵 블 Healthy Eating - Nutrition Page.html 🗵 👑 Respon
<!DOCTYPE html>
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     <meta charset="UTF-8">
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                  Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.
              </aside>
          </article>
     </div>
</body>
</html>
```

#### 3. <head>:

•Contains meta-information about the HTML document, such as its character set, viewport settings, title, and linked stylesheets.

#### 4. <meta charset="UTF-8">:

•Specifies the character encoding for the HTML document. UTF-8 is a standard character encoding that includes almost all characters and symbols in the world.



```
cs_Styling and Arrays in Web Development.php 🗵 블 new 3 🗵 블 new 4 🗵 블 new 5 🗵 ∺ test.php 🗵 블 australian-cultural-festival.html 🗵 ∺ learn_web_design.html 🗵 ∺ Healthy Eating - Nutrition Page.html 🗵 🛗 Respon
<!DOCTYPE html>
∃<html lang="en">
∃<head>
     <meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Nutrition Page</title>
     k rel="stylesheet" href="Responsive Image and Container Styles.css">
</head>
=<body>
     <div id="container">
          <article>
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              <aside>
                  <h2>Tips</h2>
                  Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.
              </aside>
          </article>
     </div>
</body>
</html>
```

#### 5. <meta name="viewport" content="width=device-width, initial-scale=1.0">:

•Provides instructions to the browser on how to control the page's dimensions and scaling. This ensures the webpage is responsive, adapting to different screen sizes.

## 6. <title>Nutrition Page</title>:

•Sets the title of the HTML document, which appears in the browser's title bar or tab.



```
cs_Styling and Arrays in Web Development.php 🗵 블 new 3 🗵 블 new 4 🗵 블 new 5 🗵 ∺ test.php 🗵 블 australian-cultural-festival.html 🗵 ∺ learn_web_design.html 🗵 ∺ Healthy Eating - Nutrition Page.html 🗵 🛗 Respon
<!DOCTYPE html>
∃<html lang="en">
∃<head>
     <meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Nutrition Page</title>
     k rel="stylesheet" href="Responsive Image and Container Styles.css">
 </head>
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              <aside>
                  <h2>Tips</h2>
                  Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.
              </aside>
         </article>
     </div>
 </body>
 </html>
```

#### 7. rel="stylesheet" href="styles.css">:

•Links an external CSS file (styles.css) to the HTML document, which contains the styles that will be applied to the HTML elements.



```
cs_Styling and Arrays in Web Development.php 🗵 블 new 3 🗵 블 new 4 🗵 블 new 5 🗵 ∺ test.php 🗵 블 australian-cultural-festival.html 🗵 ∺ learn_web_design.html 🗵 ∺ Healthy Eating - Nutrition Page.html 🗵 🛗 Respon
<!DOCTYPE html>
=<html lang="en">
∃<head>
     <meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Nutrition Page</title>
     <link rel="stylesheet" href="Responsive Image and Container Styles.css">
</head>
=<body>
     <div id="container">
          <article>
              <h1>Healthy Eating</h1>
              Good nutrition is a lifestyle, not a diet. It starts with a new way of thinking about food.
              <aside>
                  <h2>Tips</h2>
                  Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.
              </aside>
          </article>
     </div>
</body>
-</html>
```

#### 8. <body>:

Contains the content of the HTML document that is visible to the user.

#### 9. <article>:

•Represents a self-contained piece of content that can be distributed independently. Here, it is used to group content related to "Healthy Eating."



```
cs_Styling and Arrays in Web Development.php 🗵 블 new 3 🗵 블 new 4 🗵 블 new 5 🗵 ∺ test.php 🗵 블 australian-cultural-festival.html 🗵 ∺ learn_web_design.html 🗵 ∺ Healthy Eating - Nutrition Page.html 🗵 🛗 Respon
<!DOCTYPE html>
=<html lang="en">
∃<head>
     <meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Nutrition Page</title>
     <link rel="stylesheet" href="Responsive Image and Container Styles.css">
</head>
∃<body>
     <div id="container">
          <article>
              <h1>Healthy Eating</h1>
              Good nutrition is a lifestyle, not a diet. It starts with a new way of thinking about food.
              <aside>
                  <h2>Tips</h2>
                  Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.
              </aside>
          </article>
     </div>
</body>
-</html>
```

## 10. <h1>Healthy Eating</h1>:

Defines the main heading of the article.

# 11. Good nutrition is a lifestyle, not a diet. It starts with a new way of thinking about food.:

• A paragraph element containing text about healthy eating.



```
cs_Styling and Arrays in Web Development.php 🗵 블 new 3 🗵 블 new 4 🗵 블 new 5 🗵 ∺ test.php 🗵 블 australian-cultural-festival.html 🗵 ∺ learn_web_design.html 🗵 ∺ Healthy Eating - Nutrition Page.html 🗵 🛗 Respon
<!DOCTYPE html>
=<html lang="en">
∃<head>
     <meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Nutrition Page</title>
     rel="stylesheet" href="Responsive Image and Container Styles.css">
</head>
=<body>
     <div id="container">
          <article>
              <h1>Healthy Eating</h1>
              Good nutrition is a lifestyle, not a diet. It starts with a new way of thinking about food.
              <aside>
                  <h2>Tips</h2>
                  Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.
              </aside>
          </article>
     </div>
-</body>
</html>
```

#### 12. <aside>:

In this HTML example, the <aside> element is used to provide supplementary information related to the main content of the <article>. The primary purpose of the <aside> is to house content that is indirectly related to the main topic but still relevant and useful. Here, the <aside> contains tips for healthy eating, which complement the main article about healthy eating habits.









localhost/Healthy%20Eating%20-%20Nutrition%20Page.html







#### **Healthy Eating**

Good nutrition is a lifestyle, not a diet. It starts with a new way of thinking about food.

#### Tips

Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.

#### 12. <aside>:

In this HTML example, the <aside> element is used to provide supplementary information related to the main content of the <article>. The primary purpose of the <aside> is to house content that is indirectly related to the main topic but still relevant and useful. Here, the <aside> contains tips for healthy eating, which complement the main article about healthy eating habits.

```
cs_Styling and Arrays in Web Development.php 🗵 블 new 3 🗵 블 new 4 🗵 블 new 5 🗵 블 test.php 🗵 블 australian-cultural-festival.html 🗵 📇 learn_web_design.html 🗵 📇 Healthy Eating - Nutrition Page.html 🗵 📙 Respon
<!DOCTYPE html>
∃<html lang="en">
∃<head>
     <meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Nutrition Page</title>
     k rel="stylesheet" href="Responsive Image and Container Styles.css">
 </head>
=<body>
     <div id="container">
          <article>
              <h1>Healthy Eating</h1>
              Good nutrition is a lifestyle, not a diet. It starts with a new way of thinking about food.
              <aside>
                  <h2>Tips</h2>
                  Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.
              </aside>
          </article>
     </div>
 </body>
</html>
```

#### 12. <aside>:

- **Contextual Information**: It offers additional advice (tips) that enhances the reader's understanding and practice of healthy eating.
- Separation of Content: It separates supplementary content from the main content.



```
cs_Styling and Arrays in Web Development.php 🗵 블 new 3 🗵 블 new 4 🗵 블 new 5 🗵 ∺ test.php 🗵 블 australian-cultural-festival.html 🗵 ∺ learn_web_design.html 🗵 ∺ Healthy Eating - Nutrition Page.html 🗵 🛗 Respon
<!DOCTYPE html>
∃<html lang="en">
∃<head>
     <meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Nutrition Page</title>
     <link rel="stylesheet" href="Responsive Image and Container Styles.css">
 </head>
=<body>
     <div id="container">
          <article>
              <h1>Healthy Eating</h1>
              Good nutrition is a lifestyle, not a diet. It starts with a new way of thinking about food.
              <aside>
                  <h2>Tips</h2>
                  Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.
              </aside>
         </article>
     </div>
 </body>
 </html>
```

#### 12. <aside>:

• Represents content that is tangentially related to the content around it. Here, it is used to provide additional tips related to the main article content.



```
cs_Styling and Arrays in Web Development.php 🗵 님 new 3 🗵 님 new 4 🗵 🔡 new 5 🗵 🔡 new 5 🗵 🔡 rest.php 🗵 🔡 australian-cultural-festival.html 🗵 🛗 learn_web_design.html 🗵 🛗 Healthy Eating - Nutrition Page.html 🗵 🛗 Respon
 <!DOCTYPE html>
∃<html lang="en">
=<head>
     <meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Nutrition Page</title>
     <link rel="stylesheet" href="Responsive Image and Container Styles.css">
-</head>
=<body>
     <div id="container">
          <article>
              <h1>Healthy Eating</h1>
              Good nutrition is a lifestyle, not a diet. It starts with a new way of thinking about food.
              <aside>
                   <h2>Tips</h2>
                   Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.
              </aside>
          </article>
     </div>
 </body>
 </html>
```

# 13. <h2>Tips</h2>:

A secondary heading within the aside element.



```
cs_Styling and Arrays in Web Development.php 🗵 블 new 3 🗵 블 new 4 🗵 블 new 5 🗵 블 test.php 🗵 블 australian-cultural-festival.html 🗵 블 learn_web_design.html 🗵 블 Healthy Eating - Nutrition Page.html 🗵 👑 Respon
<!DOCTYPE html>
∃<html lang="en">
∃<head>
     <meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Nutrition Page</title>
     k rel="stylesheet" href="Responsive Image and Container Styles.css">
</head>
=<body>
     <div id="container">
          <article>
              <h1>Healthy Eating</h1>
              Good nutrition is a lifestyle, not a diet. It starts with a new way of thinking about food.
              <aside>
                  <h2>Tips</h2>
                  Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.
              </aside>
         </article>
     </div>
 </body>
</html>
```

# 14. Control impulsive urges to buy junk food, and instead, allow yourself one "cheat meal" a week.:

•A paragraph within the aside element providing a tip related to healthy eating.



```
test.php 🗵 🔚 australian-cultural-festival.html 🗵 🔚 learn_web_design.html 🗵 🔚 Healthy Eating - Nutrition Page.html 🗵 님 Responsive Image and Container Style
    styles.css */
imq {
     max-width: 100%;
     height: auto;
#container {
     width: 100%;
     padding: 0 20px;
```

## 1. /\* styles.css \*/:

- •A comment indicating the start of the CSS file. Comments are ignored by the browser and are used for documentation purposes.
- 2. img { max-width: 100%; height: auto; }:
- This rule applies to all img elements within the HTML document.
- •max-width: 100%;: Ensures that images scale down to fit within their container but do not scale up beyond their original size.
- •height: auto;: Maintains the aspect ratio of the images as they scale.





- 3. #container { width: 100%; padding: 0 20px; }:
- This rule applies to an element with the id container.
- width: 100%;: Sets the width of the container to 100% of its parent element.
- padding: 0 20px;: Adds 20 pixels of padding to the left and right sides of the container, with no padding at the top or bottom.

```
HOLMES
```

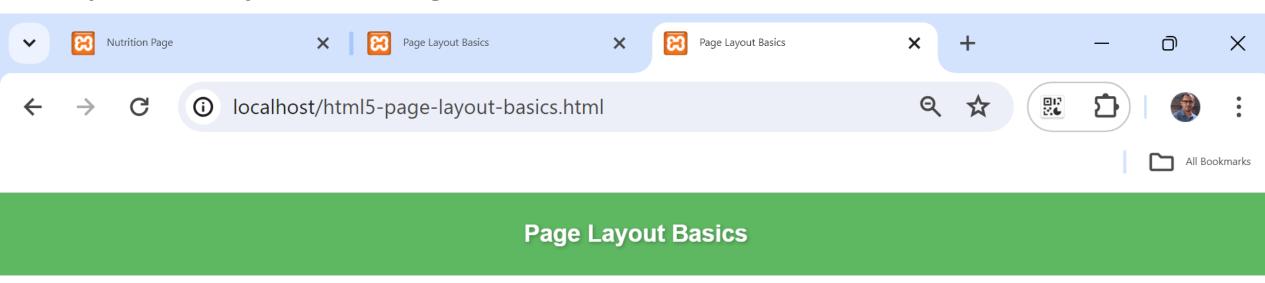
These HTML and CSS codes work together to create a simple, responsive webpage with a main article and an aside for additional tips, while ensuring that images are fluid and adapt to the container's width.

This example illustrates the use of semantic HTML5 elements, CSS properties for styling and layout, and responsive design techniques.





Commit changes



#### **Understanding HTML5 Semantic Elements**

The article element represents a self-contained composition in a document...

#### **Related Information**

This is some additional information related to the main content...

#### The Section Element

The section element represents a thematic grouping of content...

Example Image
This is an example image with a caption.

Column 1 Column 2 Column 3

```
-page-layout-basics.html 🗵 🔚 change.log 🗵 블 php_test_page.php 🗵 블 greeting-and-time.php 🗵 블 PHP_MySQL_Integration.php 🗵 블 setup_users_table.sql 🗵 블 fet
 The best title and file name of this?
 <!DOCTYPE html>
<meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>Page Layout Basics</title>
     <link rel="stylesheet" href="css-styles-html5-page-layout.css">
<body>
     <!-- Banner -->
     <header class="banner">
         <hl>Page Layout Basics</hl>
     </header>
     <!-- Main Content -->
         <!-- Article Element -->
         <article>
             <h2>Understanding HTML5 Semantic Elements</h2>
             The <code>article</code> element represents a self-contained composition in a document...
         </article>
         <!-- Aside Element -->
             <h3>Related Information</h3>
             This is some additional information related to the main content...
         </aside>
         <!-- Section Element -->
         <section>
             <h2>The Section Element</h2>
             The <code>section</code> element represents a thematic grouping of content...
         </section>
         <!-- Figure and Figcaption Elements -->
             <img src="example.jpg" alt="Example Image">
             <figcaption>This is an example image with a caption.</figcaption>
         </figure>
     </main>
     <!-- Creating a Three-Column Layout -->
     <div class="three-column-layout">
         <div class="column">Column 1</div>
         <div class="column">Column 2</div>
         <div class="column">Column 3</div>
     </div>
 </body>
 </html>
```

- 1. Banner: The '<header>' element with the class `banner` represents the banner of the website, displaying the site name.
- 2. Main Content: The '<main>' element contains:
  - **Article:** The `<article>` element represents a self-contained composition.
  - **Aside:** The `<aside>` element provides additional information related to the main content.
  - **Section:** The `<section>` element represents a thematic grouping of content.
  - Figure and Figcaption: The `<figure>` element groups an image ('<img>') and its caption (`<figcaption>`).
- 3. Three-Column Layout: A `<div>` with the class `three-column-layout` creates a container for a three-column layout using flexbox.

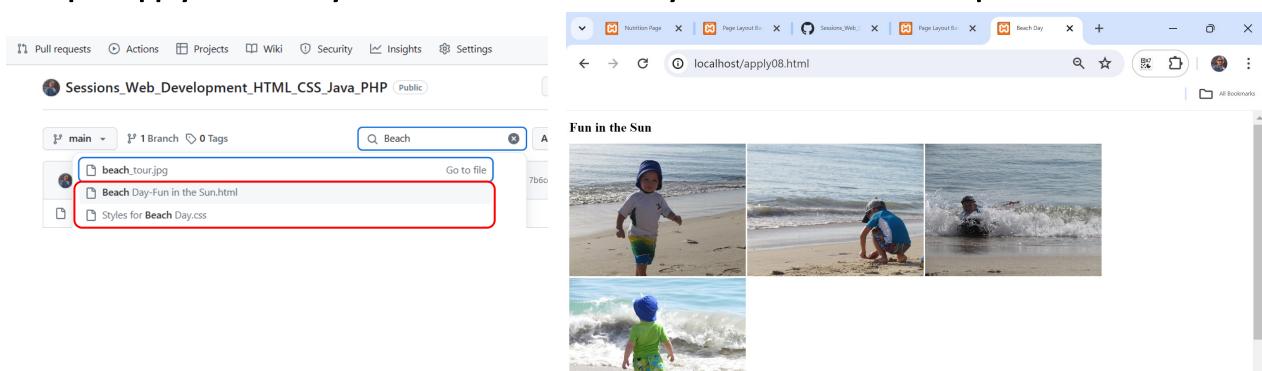
```
/* Basic styles */
      font-family: Arial, sans-serif;
      margin: 0;
      padding: 0;
      background-color: #4CAF50;
      color: white;
     text-align: center;
      padding: 1em 0;
 /* Article, Aside, Section styles */
      padding: 1em;
= article, aside, section {
      margin-bottom: 1em:
      background-color: #f9f9f9;
      padding: 1em;
      border-left: 4px solid #4CAF50
 /* Figure and Figcaption styles */
      margin: 1em 0;
      text-align: center;
     max-width: 100%;
      height: auto;
      font-size: 0.9em:
      color: #555;
      display: flex;
      justify-content: space-between;
      padding: 1em;
      background-color: #f1f1f1;
      background-color: #ddd
      padding: 1em:
      width: 30%;
      box-sising: border-box;
  /* Opacity and Text-Shadow properties */
      opacity: 0.9;
     text-shadow: 2px 2px 5px rgba(0, 0, 0, 0.3);
 /* Overflow property */
     overflow: auto:
@media (max-width: 768px) {
      .three-column-layout {
        flex-direction: column:
```

- 1. Basic styles: General styling for the 'body' and resetting margins and padding.
- **2. Banner styles:** Styling the banner with a background color, text color, and padding. The 'opacity' property is used to set transparency.
- **3. Article, Aside, Section styles:** Adding margins and padding to the `<main>` and its child elements. The `aside` element has additional styling for a distinct background and border.
- **4. Figure and Figcaption styles:** Centering the figure and ensuring the image scales responsively. The 'figcaption' is styled with a smaller font and color.
- **5. Three-Column Layout:** Using flexbox to create a three-column layout. Each column is styled with a background color, padding, and width.
- **6. Opacity and Text-Shadow properties:** Applying `opacity` to the banner and `text-shadow` to the `<h1>` for visual effects.
- 7. Overflow property: Ensuring the main content area scrolls if content overflows.
- **8. Responsive Design:** Adjusting the three-column layout for smaller screens using a media query.

**Project 1: Styling for Responsive Design** 

**Instructions:** 

- 1. Open apply08.html in your browser:
  - 1. Done.
- 2. Open apply08.html in your text editor and modify the comment at the top:





## **Project 1: Styling for Responsive Design**

- 3. Remove the width and height attributes from the image elements and save your changes:
- Done above.
- 4. Open styles08.css and modify the comment at the top:



- 5. Add a max-width property with a value of 100% to the img selector:
- Done above.



- Done above.
- 7. Save the styles08.css file and refresh the apply08.html file in your browser. Resize the browser to ensure the layout is fluid and images are flexible:
- Done.
- 8. Add the following meta tag within the head section of the document:
- Done above.



- 9. Save your changes to apply08.html and open the file in Google Chrome:
- Done.



- Done.
- 11. Select a device and refresh the page. The page should look similar to Figure 1:
- Verified.



- 12. Validate your HTML document using the W3C validator:
- W3C Validator

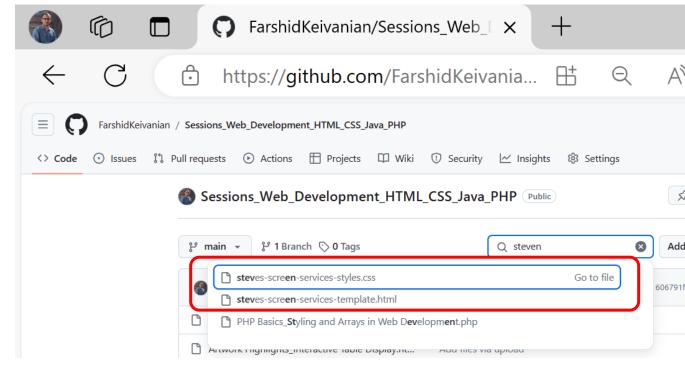
INSTITUT

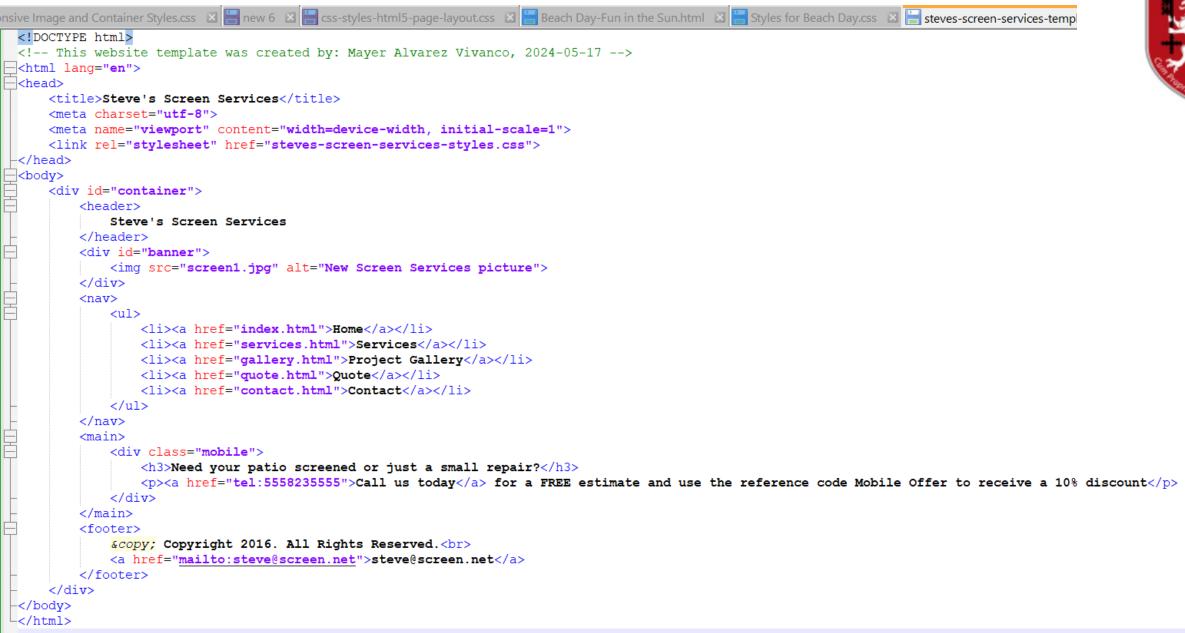
- 13. Validate your CSS file using the W3C validator:
- W3C CSS Validator
- 14. Submit the apply08.html and styles08.css files in a format specified by your instructor:
- Done.
- 15. Explain how the percentage unit of measurement makes a fluid layout more flexible as compared to px:
- Using percentages for width allows the layout to adapt to different screen sizes, making it more flexible and responsive. Unlike fixed pixel values, percentage values enable elements to scale relative to their container, providing a better user experience across various devices.

Challenge 1: Creating a Responsive Website for Steve's Screen Services Instructions:

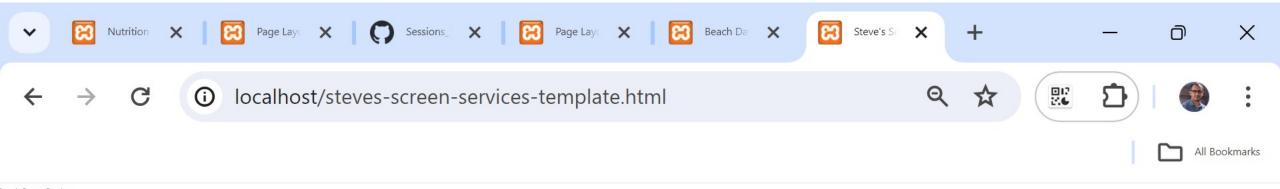


- 1. Open index.html and screenstyles.css in your text editor:
  - 1. Done.
- 2. Modify the comment at the top of index.html:









Steve's Screen Services



Home	
Services	
Project Gallery	
Quote	
Contact	

Need your patio screened or just a small repair?

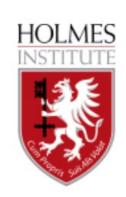
Call us today for a FREE estimate and use the reference code Mobile Offer to receive a 10% discount

Copyright 2016. All Rights Reserved.

teve@screen.ne

## 3. Modify the comment at the top of screenstyles.css:

```
sive Image and Container Styles.css 🛛 💾 new 6 🖸 💾 css-styles-html5-page-layout.css 🖂 💾 Beach Day-Fun in the Sun.html 🖂 ∺ Styles for Beach Day.css 🖸 🔀 steves-screen-services-template.html 🖂 ∺ steves-screen-services-tyles.css
/* Styles for Steve's Screen Services - Mayer Alvarez Vivanco, 2024-05-17 */
=img {
      max-width: 100%;
     height: auto;
     display: block;
      margin: 0 auto;
\square#container {
      width: 100%;
      padding: 0 20px;
#banner img {
      max-width: 100%;
     height: auto;
     max-height: 400px; /* Set a maximum height if desired */
⊟nav ul {
      padding: 0;
     margin-top: 0.5em;
      margin-bottom: 0.5em;
□nav li {
     background-color: #000066;
     list-style-type: none;
     margin: 0.4em;
      padding: 0.5em;
⊟nav li a {
      color: #FFFFFF;
      text-decoration: none;
=.mobile {
      display: inline;
```



- 4. Create a link to the external style sheet in index.html:
- Done above.
- 5. Add the viewport meta tag to the head section:
- Done above.
- 6. Delete the width and height attributes from all image elements:
- Done above.



- 7. Code each set of navigation links as an unordered list:
- Done above.
- 8. Create a new div element with a class="mobile" and add the content:
- Done above.
- 9. Add the style to make images flexible:
- Done above.
- 10. Style the unordered list in the nav:
- Done above.



#### 11. Style the list items within the nav:

• Done above.

## 12. Style the nav links:

• Done above.

#### 13. Style the mobile class:

• Done above.

## 14. Validate your HTML code:

• W3C Validator



#### **15.** Validate your CSS code:

• W3C CSS Validator

## 16. Save all files and open the index.html page within a browser as shown in Figure 2:

• Done.

#### 17. Submit your assignment in the format specified by your instructor:

• Done.

#### 18. Research trends in navigation design for responsive web design:

• Current trends include using mobile-first design, hamburger menus for compact navigation, sticky navigation bars for easy access, and responsive grids and flexbox layouts for better adaptability.

By following these steps, you will create a responsive design for both Project 1 and Challenge 1.

# 4. Attendance and Questions

# Q1) What is the purpose of the aside element?

- A) To group main content together
- B) To create a sidebar with additional information
- C) To define a section within a document
- D) To apply styles to an image

# Q2) Which property is used to manage content overflow in CSS?

- A) float
- B) overflow
- C) opacity
- D) text-shadow



