

# Media Query Assignment

## Assignment Question

1. Create a simple webpage with a header, a main content section, and a footer. Apply a media query that changes the background color of the header to blue when the screen width is less than 600px.

Answer:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Assignment</title>
7   <style>
8     header {
9       background-color: rgb(189, 184, 184);
10      padding: 20px;
11      text-align: center;
12    }
13    @media screen and (max-width: 600px) {
14      header {
15        background-color: blue;
16      }
17    }
18  </style>
19 </head>
20 <body>
21   <header>
22     Responsive Header
23   </header>
24   <main>
25     Main Section
26   </main>
27   <Footer>
28     Footer
29   </Footer>
30 </body>
31 </html>
```

Normal Output:

Dimensions: Responsive792 x 547100%No throttling

Responsive Header

Main Section

Footer

<!DOCTYPE html>

<html lang="en"> == \$0

>>><head></head>

>>><body></body>

</html>

html

StylesComputedLayoutEvent ListenersDOM Breakpoints

Filter: :hov .cls +

element.style {

}

html[Attributes Style] {

-webkit-Locale: "en";

}

:root {

view-transition-name: root;

}

html {

display: block;

}

Responsive Output:

Dimensions: Responsive599 x 547100%No throttling

Responsive Header

Main Section

Footer

<!DOCTYPE html>

<html lang="en"> == \$0

>>><head></head>

>>><body></body>

</html>

html

StylesComputedLayoutEvent ListenersDOM Breakpoints

Filter: :hov .cls +

element.style {

}

html[Attributes Style] {

-webkit-Locale: "en";

}

:root {

view-transition-name: root;

}

html {

display: block;

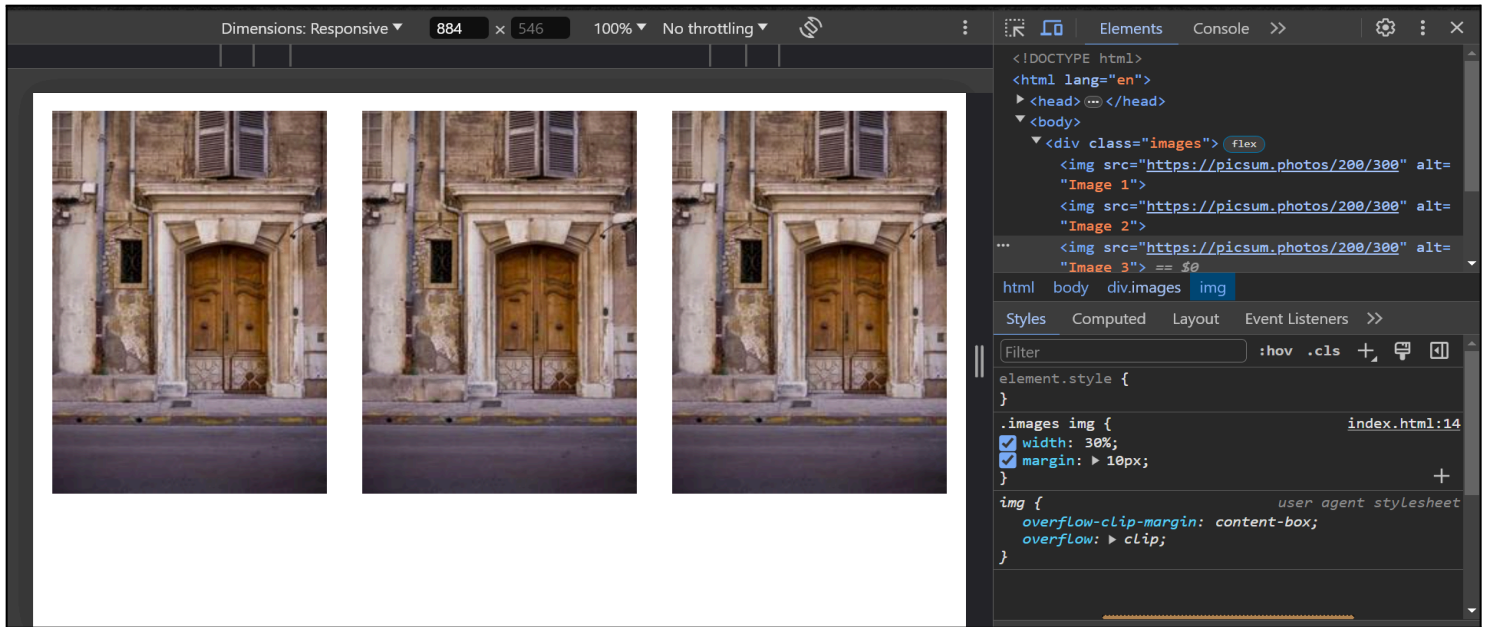
}

2. Create an image gallery with three images in a row. Use media queries to adjust the layout to two images in a row for screens smaller than 800px and one image in a row for screens smaller than 500px.

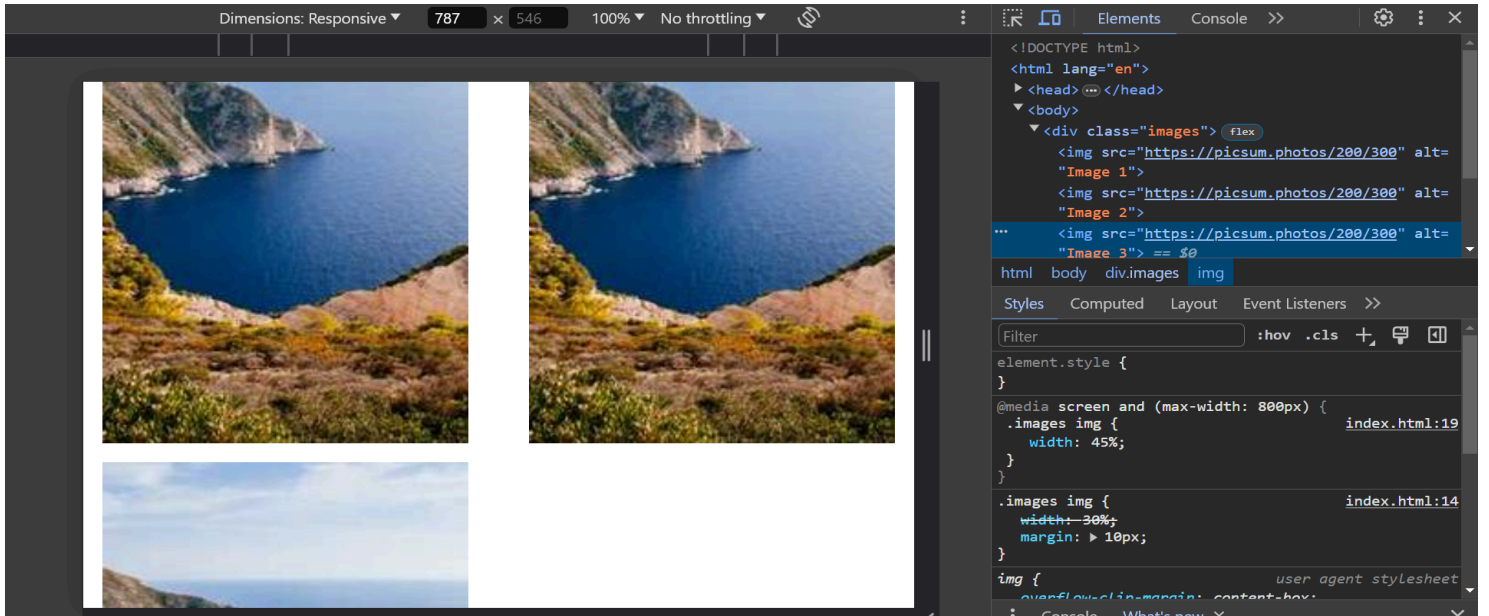
Answer:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <meta charset="UTF-8" />
5     <meta name="viewport" content="width=device-width, initial-scale=1.0" />
6     <title>Document</title>
7 </head>
8 <style>
9     .images {
10         display: flex;
11         flex-wrap: wrap;
12         justify-content: space-between;
13     }
14     .images img {
15         width: 30%;
16         margin: 10px;
17     }
18     @media screen and (max-width: 800px) {
19         .images img {
20             width: 45%;
21         }
22     }
23     @media screen and (max-width: 500px) {
24         .images img {
25             width: 100%;
26         }
27     }
28 </style>
29 <body>
30     <div class="images">
31         
32         
33         
34     </div>
35 </body>
36 </html>
37
```

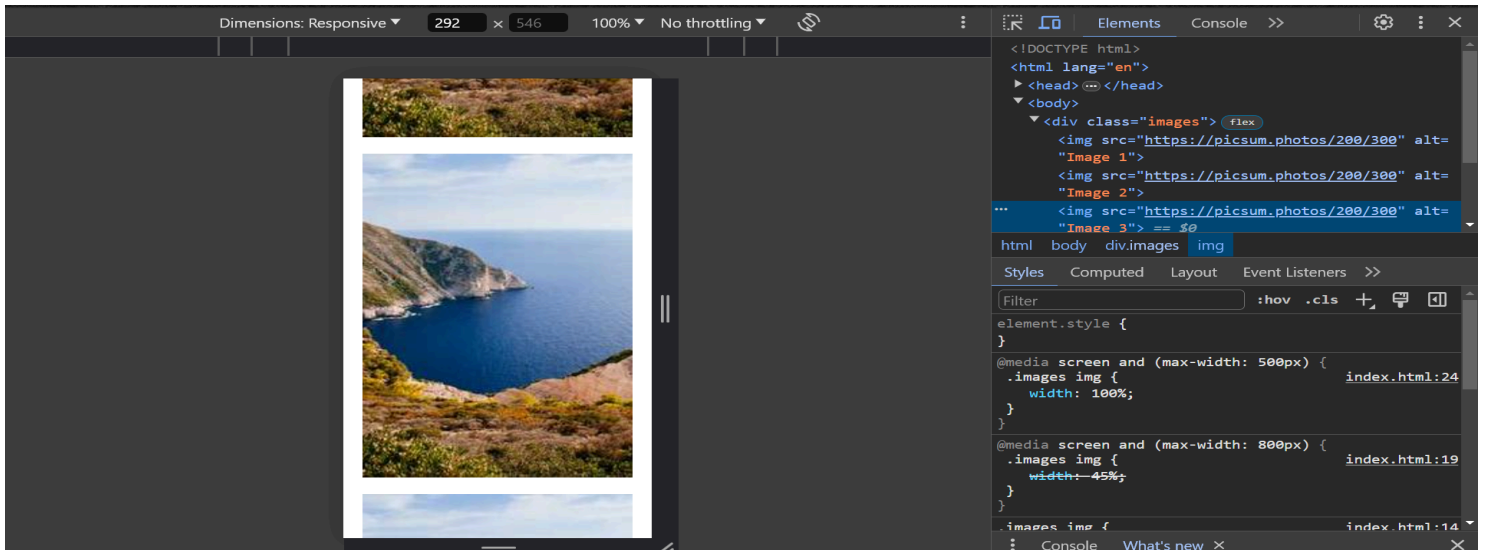
## First Output:



## Second Output:



## Third Output:

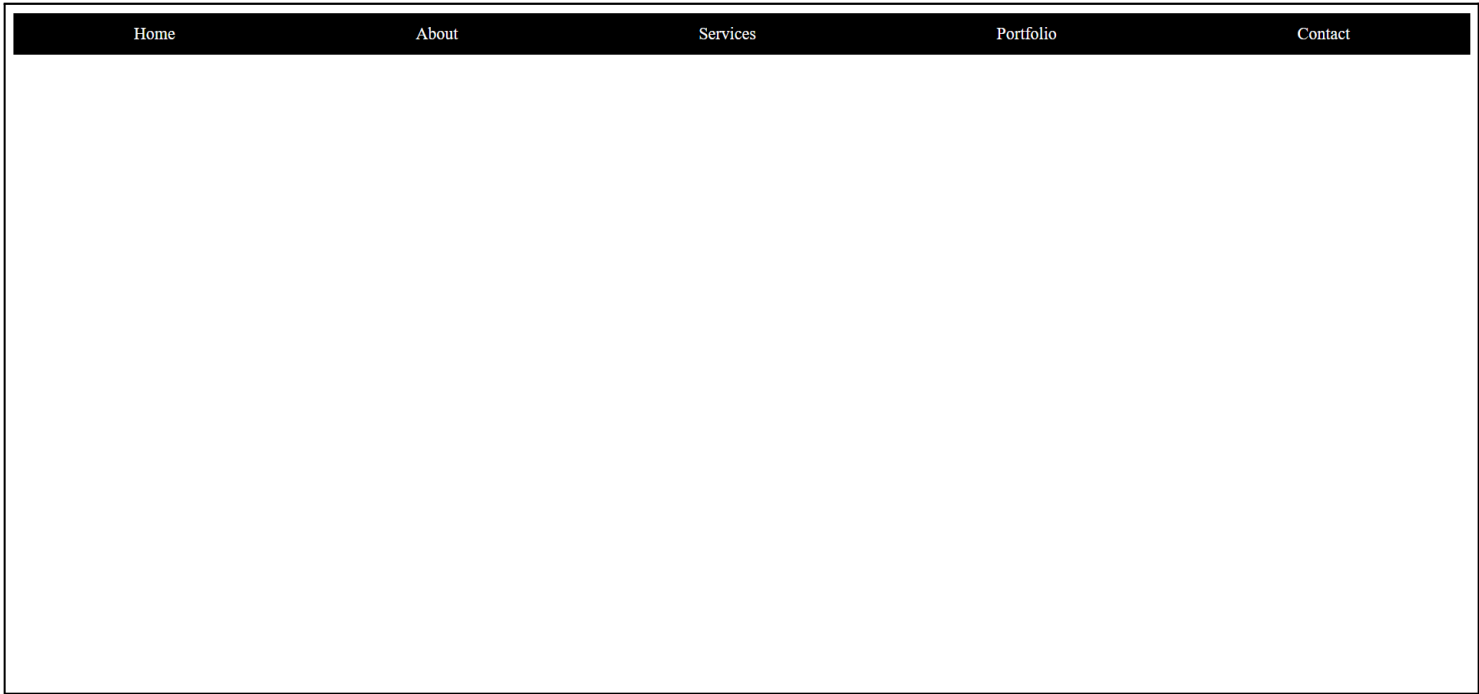


3. Create a navigation bar with five links. Apply a media query that converts the navigation into a vertical list for screens smaller than 768px and also changes the background color to gray.

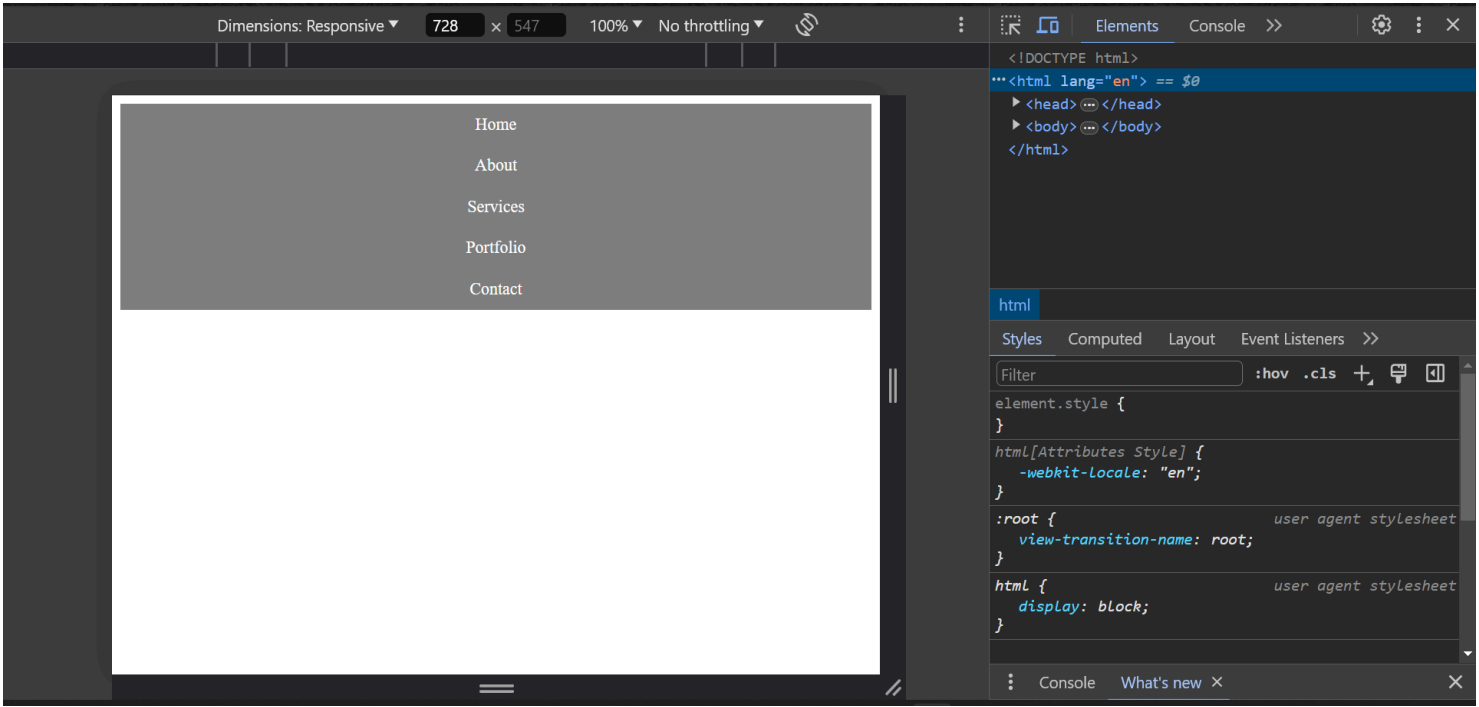
Answer:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4     <meta charset="UTF-8" />
5     <meta name="viewport" content="width=device-width, initial-scale=1.0" />
6     <title>Document</title>
7     <style>
8         .navbar {
9             display: flex;
10            justify-content: space-around;
11            background-color: black;
12        }
13        .navbar a {
14            text-decoration: none;
15            padding: 10px;
16            color: white;
17        }
18        @media screen and (max-width: 768px) {
19            .navbar {
20                flex-direction: column;
21                align-items: center;
22                background-color: gray;
23            }
24        }
25    </style>
26 </head>
27 <body>
28     <nav class="navbar">
29         <a href="#">Home</a>
30         <a href="#">About</a>
31         <a href="#">Services</a>
32         <a href="#">Portfolio</a>
33         <a href="#">Contact</a>
34     </nav>
35 </body>
36 </html>
```

Normal Output:



Responsive Output:



4. Create a grid based layout containing four grid items which arranges them as the screen size changes.

Answer:

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8" />
5      <meta name="viewport" content="width=device-width, initial-scale=1.0" />
6      <title>Responsive Grid Layout Example</title>
7      <style>
8          body {
9              margin: 0;
10             font-family: Arial, sans-serif;
11         }
12         .grid-container {
13             display: grid;
14             grid-template-columns: 1fr;
15             gap: 20px;
16             padding: 20px;
17             background-color: #f5f5f5;
18             min-height: 100vh;
19         }
20         .item {
21             background-color: #ddd;
22             padding: 20px;
23             text-align: center;
24         }
25         .header {
26             background-color: red;
27             color: white;
28         }
29         .sidebar {
30             background-color: green;
31             color: white;
32         }
33         .main {
34             background-color: blue;
35             color: white;
36         }
37         .footer {
38             background-color: chocolate;
39             color: white;
40         }
41
42         @media screen and (min-width: 768px) {
43             .grid-container {
44                 grid-template-columns: repeat(3, 1fr);
45                 grid-template-areas:
46                     "header header header"
47                     "sidebar main main"
48                     "footer footer footer";
49             }
50         }
51     </style>
52 </head>
53 <body>
54     <div class="grid-container">
55         <div class="item header">Box1</div>
56         <div class="item sidebar">Box2</div>
57         <div class="item main">Box3</div>
58         <div class="item footer">Box4</div>
59     </div>
60 </body>
61 </html>
```

The diagram illustrates a simple layout structure with four colored boxes arranged in a 2x2 grid. The boxes are labeled Box1, Box2, Box3, and Box4. Box1 is red, Box2 is green, Box3 is blue, and Box4 is orange. The boxes are positioned in the top-left, top-middle, top-right, and bottom-left areas of the layout, respectively. The bottom-right area is empty, representing a large content area.

The screenshot shows a web browser with four colored boxes stacked vertically. The boxes are labeled Box1 (red), Box2 (green), Box3 (blue), and Box4 (orange). The browser's developer tools are open on the right, showing the HTML structure and the CSS styles applied to the grid container.

The HTML structure shown in the developer tools is:

```
<html>
  <head>
    <script>
      ...
    </script>
  </head>
  <body>
    <div class="grid-container">
      <!-- Code injected by live-server -->
    </div>
  </body>
</html>
```

The CSS styles applied to the grid container are:

```
display: grid;
grid-template-columns: 1fr;
gap: 20px;
padding: 20px;
background-color: #f5f5f5;
min-height: 100vh;
```



5. Create the below given layout using the flexbox in css, which should adapt itself on mobile screen as per given below output.

Answer:

```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8" />
5      <meta name="viewport" content="width=device-width, initial-scale=1.0" />
6      <title>Responsive Flex Layout Example</title>
7      <style>
8          body {
9              margin: 0;
10             font-family: Arial, sans-serif;
11         }
12         .container {
13             display: flex;
14             flex-direction: column;
15             min-height: 100vh;
16             background-color: #f5f5f5;
17         }
18         .header,
19         .footer {
20             background-color: #333;
21             color: white;
22             padding: 20px;
23             text-align: center;
24         }
25         .main {
26             display: flex;
27             flex-direction: column;
28             flex: 1;
29         }
30         .sidebar,
31         .content {
32             background-color: #ddd;
33             padding: 20px;
34             text-align: center;
35         }
36         .sidebar {
37             background-color: #66cc99;
38             color: white;
39         }
40         .content {
41             background-color: #ff9933;
42             color: white;
43         }
44
45         @media screen and (min-width: 768px) {
46             .container {
47                 flex-direction: row;
48             }
49             .sidebar,
50             .content {
51                 flex: 1;
52             }
53         }
54     </style>
55 </head>
56 <body>
57     <div class="container">
58         <div class="header">Header</div>
59         <div class="main">
60             <div class="sidebar">Sidebar</div>
61             <div class="content">Main Content</div>
62         </div>
63         <div class="footer">Footer</div>
64     </div>
65 </body>
66 </html>
```

Normal Output:



Responsive Output:

