

Media Queries Assignment

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.

Ans: HTML Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<link rel="stylesheet" href="style.css">
<title>Media Queries</title>
</head>
<body>

    <h1 id="main-heading">Responsive Header</h1> <br>
    <main>Main Content</main> <br>
    <footer>Footer</footer>

</body>
</html>
```

CSS Code:

```
* {
    margin: 0;
    padding: 0;
    box-sizing: border-box;
    font-family: 'Times New Roman', Times, serif;
}

#main-heading {
    text-align: center;
```

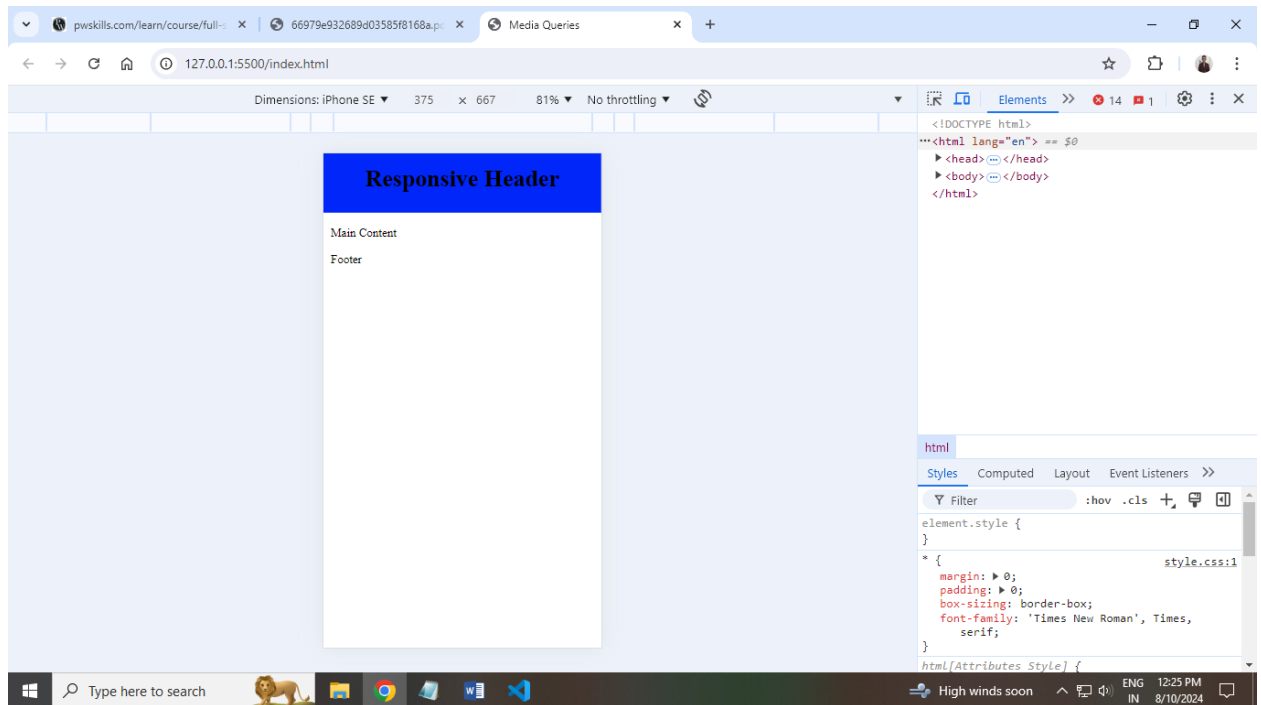
```
background-color: #f2f2f2;  
height: 80px;  
padding: 15px 0;  
}
```

```
@media only screen and (max-width: 600px) {
```

```
  #main-heading {  
    background-color: blue;  
  }
```

```
  main, footer {  
    margin-left: 10px;  
  }  
}
```





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.

Ans: HTML Code:

```

<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<link rel="stylesheet" href="style.css">
<title>Media Queries</title>
</head>
<body>

```

```

<div class="image-container">

```

```

```

```
</div>
```

```
</body>
```

```
</html>
```

CSS Code:

```
/* Default layout: three images in a row */
```

```
.image-container {  
  display: flex;  
  flex-wrap: wrap;  
  justify-content: space-around;  
}
```

```
.image-container img {  
  width: 350px;  
  height: 500px;  
  margin: 10px;  
}
```

```
/* For screens smaller than 800px: two images in a row */
```

```
@media (max-width: 800px) {
```

```
  .image-container img {  
    width: 300px;  
    height: 440px;  
  }
```

```
  #image-3 {  
    margin-right: 350px;  
  }  
}
```

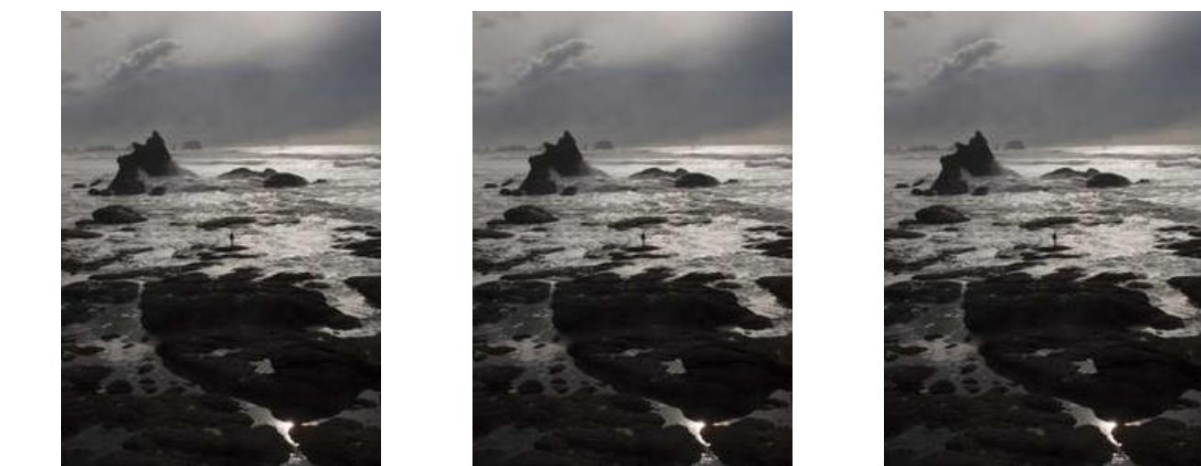
`/* For screens smaller than 500px: one image in a row */`

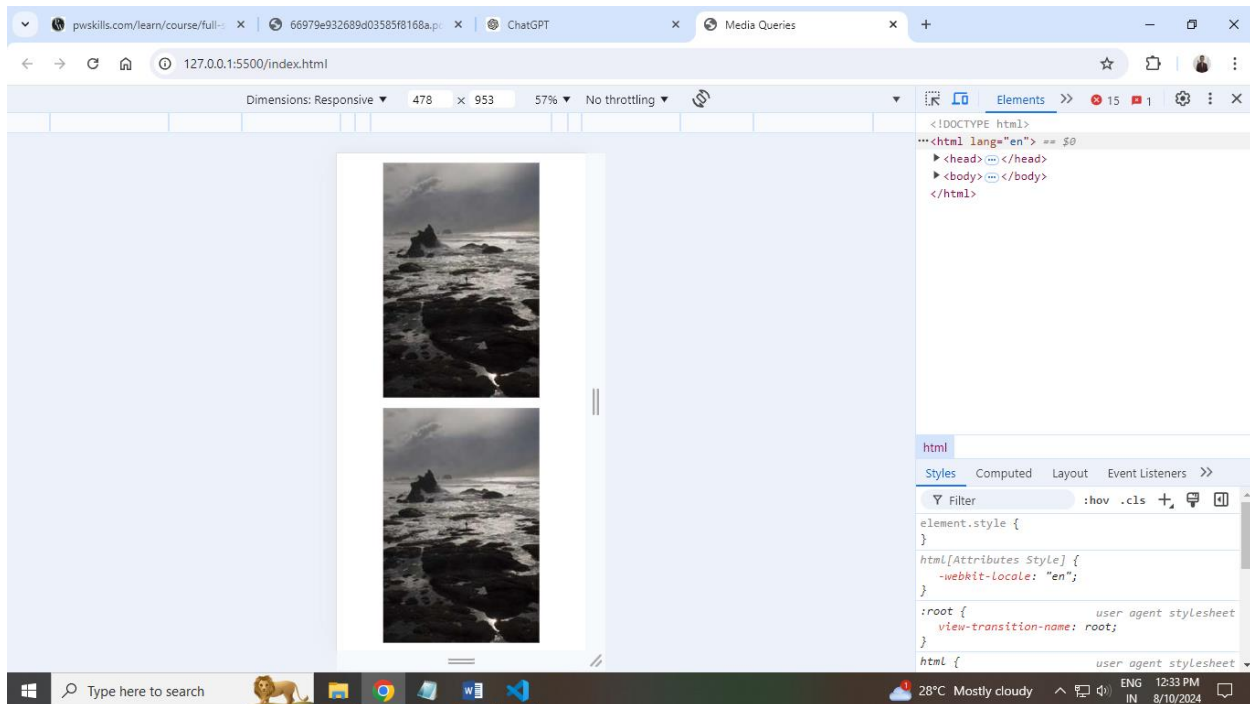
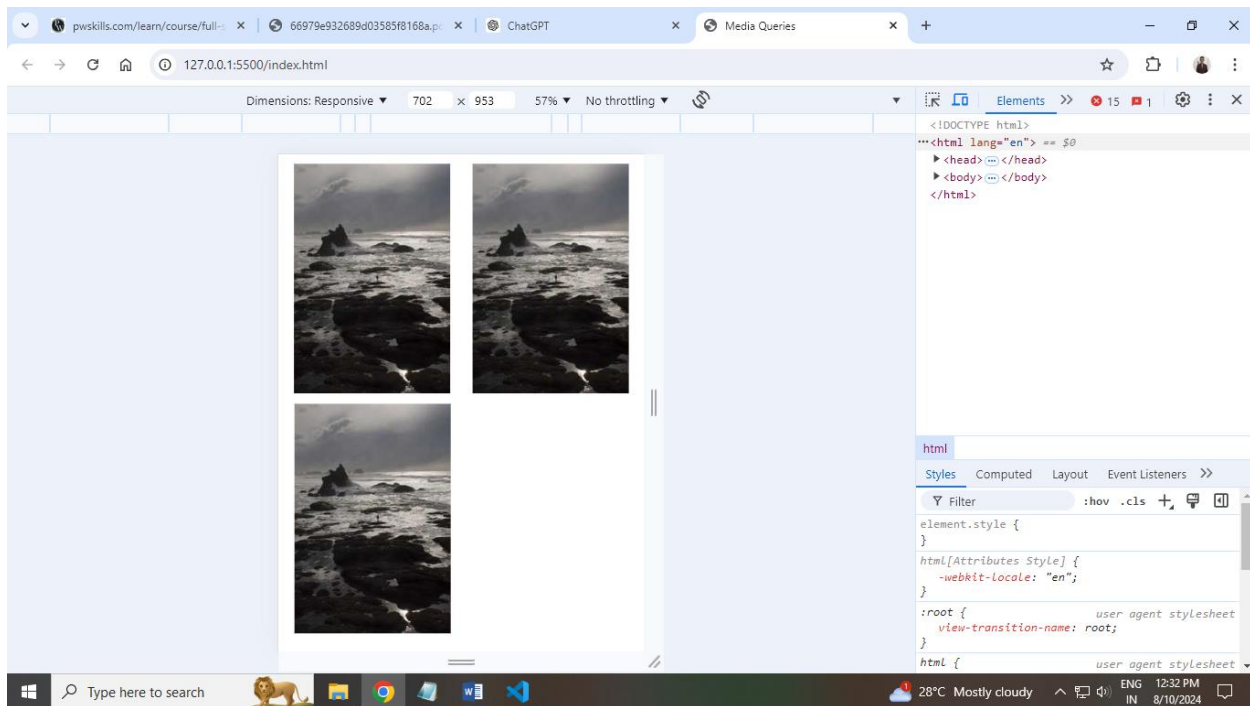
`@media (max-width: 500px) {`

**`.image-container {
 flex-direction: column;
 align-items: center;
}`**

**`.image-container img {
 width: 300px;
 height: 450px;
}`**

**`#image-3 {
 margin-right: 0;
}
}`**





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.

Ans: HTML Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<link rel="stylesheet" href="style.css">
<title>Nav Bar Design</title>
</head>
<body>

  <header>
    <nav>
      <ul>
        <li><a href="index.html">Home</a></li>
        <li><a href="about.html">About</a></li>
        <li><a href="services.html">Services</a></li>
        <li><a href="portfolio.html">Portfolio</a></li>
        <li><a href="contact.html">Contact</a></li>
      </ul>
    </nav>
  </header>

</body>
</html>
```

CSS Code:

```
header {
  height: 80px;
  background-color: black;
```

```
    color: white;
    display: flex;
    align-items: center;
    justify-content: center;
    margin-top: 15px;
}
```

```
ul {
    display: flex;
    list-style: none;
    margin-right: 15px;
}
```

```
a {
    text-decoration: none;
    color: white;
    margin: 0 8px;
    padding: 5px 5px;
    font-size: 19px;
    transition: all 0.7s ease;
}
```

```
a:hover {
    color: red;
}
```

```
@media screen and (max-width: 768px) {
```

```
    header {
        height: auto;
        padding: 10px 0px;
        background-color: gray;
    }
```

```
    ul {
```



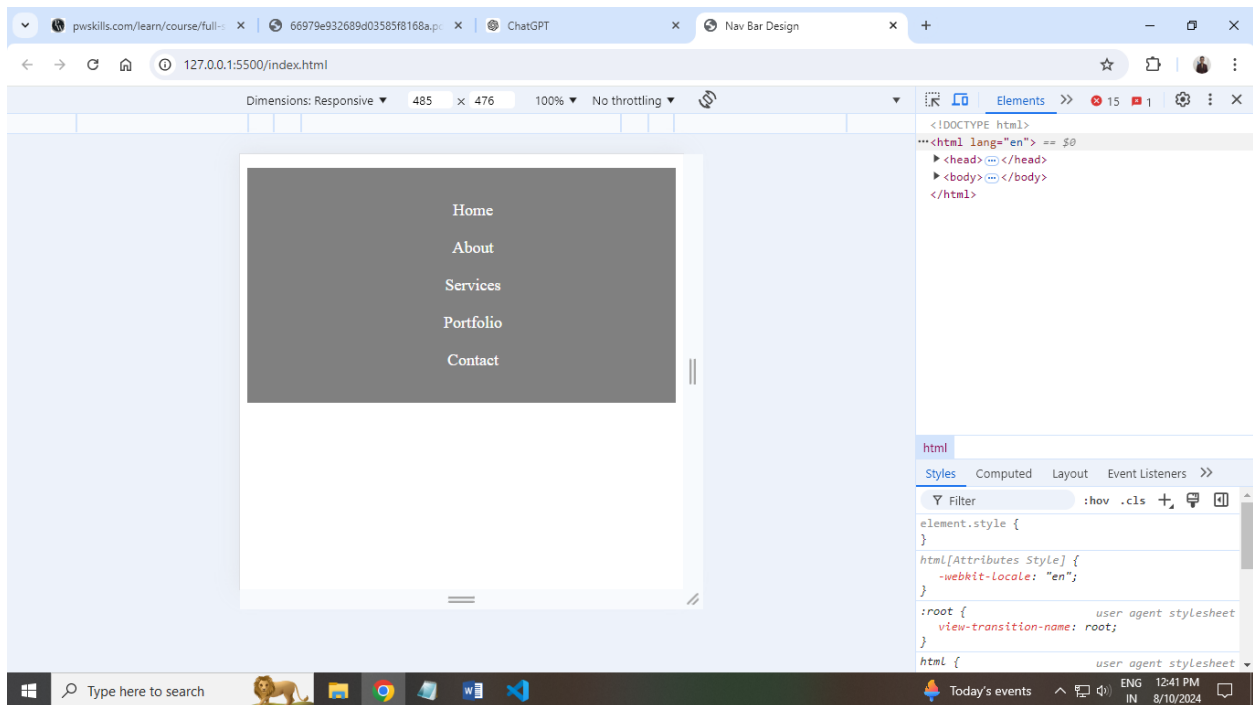
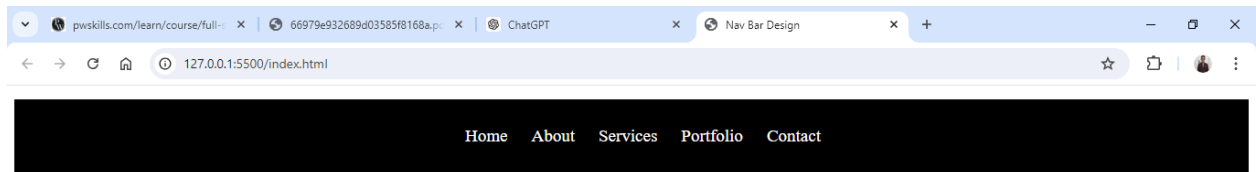
```
    flex-direction: column;
    text-align: center;
}

ul li {
    margin: 10px;
}

a {
    font-size: 18px;
    cursor: pointer;
}

a:hover {
    color: red;
}

#main-para {
    font-size: 16.5px;
    text-align: justify;
    margin: 10px;
    padding: 10px;
}
}
```



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

Ans: HTML Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<link rel="stylesheet" href="style.css">
<title>Media Queries</title>
</head>

<body>

  <div class="grid-container">
    <div class="grid-item" id="box-1">Box 1</div>
    <div class="grid-item" id="box-2">Box 2</div>
    <div class="grid-item" id="box-3">Box 3</div>
    <div class="grid-item" id="box-4">Box 4</div>
  </div>

</body>
</html>
```

CSS Code:

```
.grid-container {
  display: grid;
  grid-template-columns: repeat(3, 1fr);
  gap: 20px;
  padding: 25px;
}
```

```
.grid-item {
  display: flex;
  justify-content: center;
  align-items: center;
  font-weight: bold;
}
```

```
width: 380px;  
height: 200px;  
color: white;  
}
```

```
#box-1 {  
  background-color: red;  
  border: 1px solid red;  
}
```

```
#box-2 {  
  background-color: green;  
  border: 1px solid green;  
}
```

```
#box-3 {  
  background-color: blue;  
  border: 1px solid blue;  
}
```

```
#box-4 {  
  background-color: orange;  
  border: 1px solid orange;  
}
```

```
/* Media Query for iPad Air (typically 820px wide) */
```

```
@media (max-width: 820px) {
```

```
  .grid-container {  
    grid-template-columns: 1fr;  
    gap: 20px;  
  }
```

```
  .grid-item {
```

```
        width: 100%;  
        height: 180px;  
    }  
}
```

```
/* Media Query for Tablets (768px to 1024px wide) */
```

```
@media (max-width: 1024px) and (min-width: 768px) {
```

```
    .grid-container {  
        grid-template-columns: repeat(2, 1fr);  
    }
```

```
    .grid-item {  
        width: 300px;  
        height: 180px;  
    }  
}
```

```
/* Media Query for iPhones (up to 812px wide) */
```

```
@media (max-width: 812px) {
```

```
    .grid-container {  
        grid-template-columns: 1fr;  
        gap: 15px;  
        padding: 20px;  
    }
```

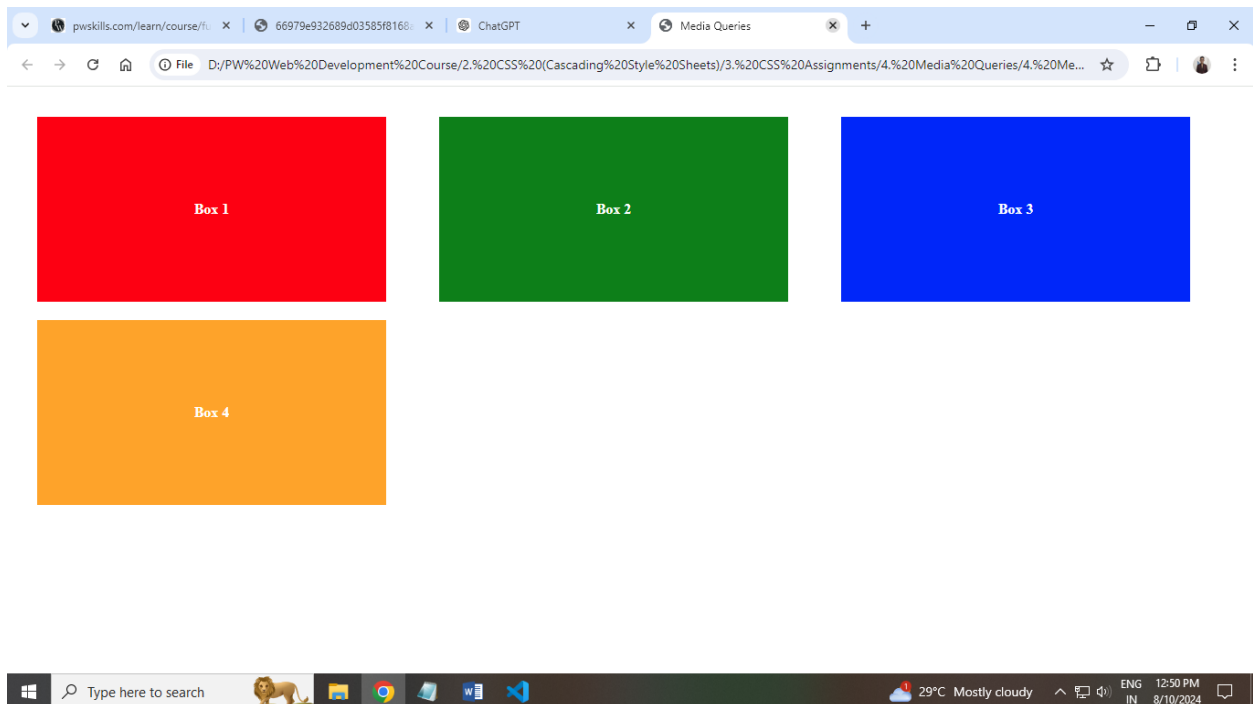
```
    .grid-item {  
        width: 100%;  
        height: 160px;  
    }  
}
```

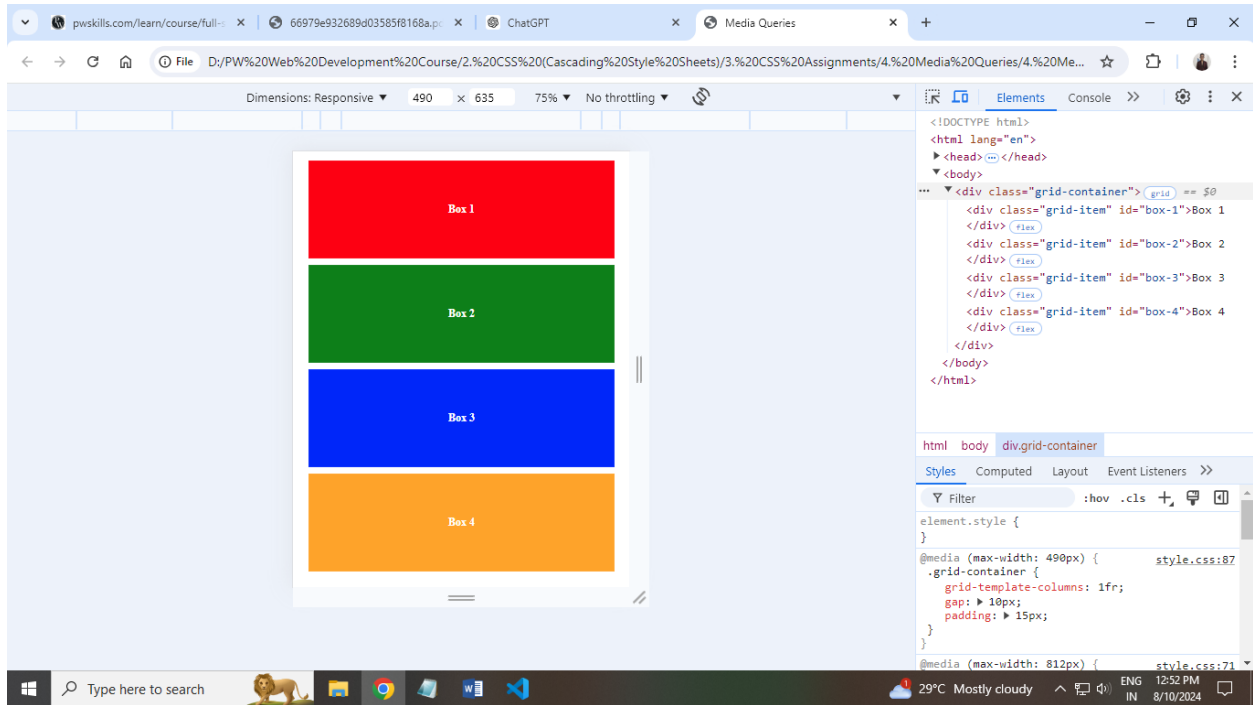
`/* Media Query for Mobile Phones (up to 480px wide) */`

`@media (max-width: 480px) {`

**`.grid-container {
 grid-template-columns: 1fr;
 gap: 10px;
 padding: 15px;
}`**

**`.grid-item {
 width: 100%;
 height: 140px;
}
}`**





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

Ans: HTML Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<link rel="stylesheet" href="style.css">
<title>Media Query 5</title>
</head>
```

```
<body>
```

```
<div class="container">
  <div class="box-1">Box 1</div>
```

```
<div class="middle-boxes">
  <div class="box-2">Box 2</div>
  <div class="box-3">Box 3</div>
</div>

<div class="box-4">Box 4</div>

</div>

</body>
</html>

CSS Code:

* {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
  font-family: 'Times New Roman', Times, serif;
}

body,
html {
  height: 100%;
}

.container {
  display: flex;
  justify-content: space-between;
  height: 100%;
}

.box-1,
.box-4 {
  width: 100px;
```



```
height: 641px;  
background-color: black;  
color: white;  
display: flex;  
justify-content: center;  
align-items: center;  
}
```

```
.middle-boxes {  
  display: flex;  
  flex-direction: column;  
  justify-content: center;  
  align-items: center;  
}
```

```
.box-2,  
.box-3 {  
  width: 1166px;  
  height: 320px;  
  color: white;  
  display: flex;  
  justify-content: center;  
  align-items: center;  
}
```

```
.box-2 {  
  background-color: green;  
}
```

```
.box-3 {  
  background-color: orange;  
}
```

```
@media (max-width: 1024px) {
```

```
.container {
    flex-direction: column;
    justify-content: flex-start;
    align-items: center;
}

.box-1,
.box-2,
.box-3 {
    width: 250px;
    height: 200px;
    margin-bottom: 20px;
}

.middle-boxes {
    width: 100%;
    gap: 10px;
}

.box-4 {
    width: 250px;
    height: 150px;
    margin-top: 20px;
}
}

/* Responsive Design for Mobile Phones (up to 767px) */

@media (max-width: 767px) {

    .container {
        flex-direction: column;
        justify-content: flex-start;
        align-items: center;
    }
}
```

```
.box-1,  
.box-2,  
.box-3 {  
    width: 200px;  
    height: 150px;  
    margin-bottom: 15px;  
}  
  
.middle-boxes {  
    width: 100%;  
    gap: 10px;  
}  
  
.box-4 {  
    width: 200px;  
    height: 100px;  
    margin-top: 20px;  
}  
}  
  
/* Responsive Design for Small Devices (iPhones) */  
  
@media (max-width: 590px) {  
    .container {  
        display: flex;  
        flex-direction: column;  
    }  
  
    .box-1,  
    .box-2,  
    .box-3  
    {  
        width: 100%;  
        height: 100px;  
    }
```

```
}
```

```
.box-4 {  
  width: 100%;  
  height: 100px;  
  margin-top: 120px;  
}  
}
```

