AIM: - Create this responsive webpage.

SOFTWARE USED: - VS Code.

THEORY: -

Responsive design is an approach to web design that makes web pages render well on various devices and screen sizes. A responsive design will automatically adjust to fit the device it is being viewed on, whether that's a phone, tablet, or computer.

Responsive design has become increasingly important as mobile traffic accounts for more than half of all internet traffic. Google also gives preference in its search results to websites optimized for mobile devices.

So, if you want your website to be visible to the widest possible audience and rank highly in search results, you need to ensure it has a responsive design.

Ethan Marcotte's responsive design theory is one of the most influential ideas in web design. It's also one of the simplest: when designing a website, you should make sure that it looks just as good on a small screen as on a large screen.

Marcotte's theory has been incredibly influential and has led to a significant shift in how designers think about web design. These days, responsive design is one of the essential principles in the field.

Check out this blog post if you're interested in learning more about responsive design or just curious about all the fuss. In it, we'll take a closer look at Marcotte's theory and explore how it has changed how we think about web design.

Fluid grids

Fluid grids are a key part of responsive design. They are used to create layouts that adapt to the width of the device they are being viewed on. This is done using a percentage-based grid rather than a fixed-width one.

Fluid grids are made up of a series of columns. The width of each column is a

percentage of the total width of the layout. This means that the layout will resize itself to fit the width of the screen it is being viewed on.

There are a few things to keep in mind when creating fluid grids:

1. The total width of the layout should not exceed 100%.

2. The columns should add up to 100%.

3. Columns should be evenly spaced out.

4. Nested columns should have their percentages, so they resize with the rest of the layout.

Flexible images

Images are essential to any website and must be treated as such. When it comes to responsive design, images can be a bit tricky. It would help if you made sure that your pictures were flexible so that they could adapt to any device or screen size.

There are a few ways to do this, but one of the most common is to use the max-width property. This ensures that your images will never be larger than the width of their container.

Another way to ensure your images are responsive is to use the srcset attribute. This allows you to specify different image sizes for other devices. The browser will automatically select the appropriate image for the user's device.

Finally, you can use media queries to target specific devices with specific image sizes. This is a more advanced technique, but it can be beneficial if you need complete control over your images.
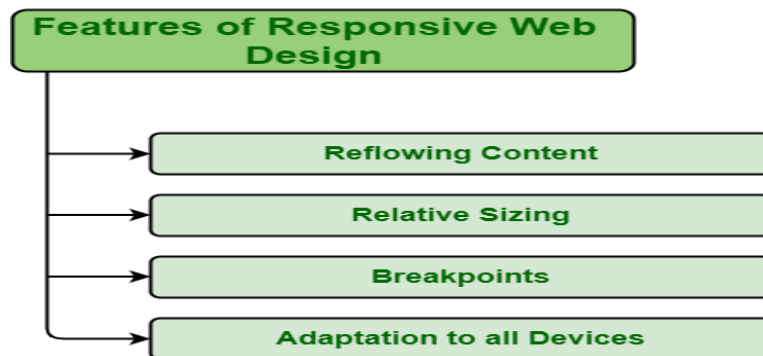
Media queries

Media queries are a powerful tool for responsive design, allowing us to customize the styles of our web pages based on the size of the user's screen. This article will explore how media queries work, how to use them in responsive designs, and some common pitfalls to avoid.

Pros and cons of responsive design

There are many different factors to consider when deciding whether or not to use responsive design for your website or application. The pros and cons of responsive design can help you make the right decision for your project.

Features of Responsive Design

There are basically 4 aspects of responsive design as given below:

Reflowing Content: Reflowing content simply refers to content that adjusts its width to fit width of window. Every day, new devices are being developed with new screen sizes. It forces browser to again calculate dimensions and position of all elements and then again reload page. It is essential to provide optimized layouts for mobile devices and tablets. **Relative Sizing**

Relative sizing simply means adjusting size of element according to width of browser or screen. When it comes to responsive design, one need to use relative length unit. Relative unit length does not have fixed size. With help of relative sizing, images or other elements adapt their size according to browser width. Different relative unit length that one can use include %, VW (Viewport Width), em, Vmin (Viewport Minimum), VH (Viewport Height), etc.

 Breakpoints

Breakpoints, also known as media queries, are the simplest filters applied to CSS styles that can be used for different style rules for various devices such as laptops, mobiles, tablets, etc. One can also modify and make changes to layout and design on different device width ranges. It can also be used to detect other things about environment on which site is running and one can customize their website design for different devices.

Adaptation to all Devices

Flexibility is main component of responsive website. Their flexibility to adapt to different size screen provide better user experience and makes it more appealing. Responsive Websites works independently, adjust itself according to screen size, resize images, change font and navigations, reposition content, etc. This helps create a positive user experience and positive image of business on customer or user that in turn increase more audience.

PROS:

-Allows for a consistent experience across devices

-Eliminates the need to maintain separate codebases for different screen sizes

-Makes it easier to track analytics and user engagement

-Can improve SEO by making it easier for search engines to crawl and index content

CONS:

-Requires a higher level of technical expertise to implement

-Can be more time-consuming and expensive to develop

-May not be ideal for sites with a lot of dynamic content

```
32     // ===========================================================
33
34     function transitionEnd() {
35       var el = document.createElement('bootstrap')
36
37       var transEndEventNames = {
```

Code: -

```
<!DOCTYPE html>

<html lang="en">

  <head>

    <meta charset="utf-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1">

    <!-- The above 3 meta tags *must* come first in the head; any other head content must
come *after* these tags -->

    <title>Ecommerce Template</title>

    <link    href="http://fonts.googleapis.com/css?family=Oswald:700"    rel="stylesheet"
type="text/css"/>

    <!-- Custom styles for this template (imports bootstrap from LESS) -->

    <link href="css/style.css" rel="stylesheet">

  </head>

  <body>

  <div class="container">
```

```html
<header>

  <div class="row">

<div class="col-md-4 col-sm-12">

    <h1    class="logo"><i    class="glyphicon    glyphicon-tag"></i>    My    <span
class="primary">Store</span></h1>

    <p class="subtext">Bootstrap Ecommerce Template</p>

</div> <!-- col-md-4 -->

<div class="col-md-8 col-sm-12">

  <form class="form-inline">

    <div class="form-group">

      <label>Email</label>

      <input type="email" class="form-control" placeholder="Enter Email">

    </div>

    <div class="form-group">

      <label>Password</label>

      <input type="password" class="form-control" placeholder="Enter Password">

    </div>

    <button type="submit" class="btn btn-default">Login</button>

  </form>

</div> <!-- col-md-8 -->

  </div> <!-- row -->

</header>

<!-- Static navbar -->

<nav class="navbar navbar-default">

  <div class="container-fluid">

    <div class="navbar-header">

      <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-
target="#navbar" aria-expanded="false" aria-controls="navbar">

        <span class="sr-only">Toggle navigation</span>

        <span class="icon-bar"></span>

        <span class="icon-bar"></span>

        <span class="icon-bar"></span>
```

```html
        </button>

      </div>

      <div id="navbar" class="navbar-collapse collapse">

        <ul class="nav navbar-nav">

          <li class="active"><a href="index.html">Home</a></li>

          <li><a href="#">What's New</a></li>

          <li><a href="#">Specials</a></li>

          <li><a href="#">My Account</a></li>

        </ul>

        <ul class="nav navbar-nav navbar-right">

      <form class="navbar-form">

        <div class="form-group">

      <input type="text" class="form-control" placeholder="Search..."/>

        </div>

        <button type="submit" class="btn btn-default">Search</button>

      </form>

        </ul>

      </div><!--/.nav-collapse -->

    </div><!--/.container-fluid -->

  </nav>


    <!-- Main component for a primary marketing message or call to action -->

    <div class="jumbotron">

    <!-- Nav tabs -->

    <ul class="tablist" role="tablist">

      <li    role="presentation"    class="active"><a    href="#featured-item"    aria-
controls="featured-item" role="tab" data-toggle="tab">Featured Item</a></li>

      <li role="presentation"><a href="#best-seller" aria-controls="best-seller" role="tab"
data-toggle="tab">Best Seller</a></li>

      <li role="presentation"><a href="#discount" aria-controls="discount" role="tab" data-
toggle="tab">Summer Discount</a></li>

      <li role="presentation"><a href="#premium" aria-controls="premium" role="tab" data-
toggle="tab">Premium Product</a></li>
```

```html
        <li role="presentation"><a href="#gift-idea" aria-controls="gift-idea" role="tab"
data-toggle="tab">Gift Idea</a></li>

    </ul>

    <!-- Tab panes -->

    <div class="tab-content">

      <div role="tabpanel" class="tab-pane active" id="featured-item">

        <div class="tab-text">

          <h2>Apple iPhone 6</h2>

          <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam feugiat, magna
ornare euismod consectetur, dolor arcu finibus erat, in finibus ex elit quis nunc. Aliquam
erat volutpat. Cras posuere feugiat ligula nec lacinia.</p>

          <a href="product.html" class="btn btn-default">Read More</a>

        </div> <!-- tab-text -->

        <img class="slide-img" src="img/iphone.png"/>

      </div>

      <div role="tabpanel" class="tab-pane" id="best-seller">

        <div class="tab-text">

          <h2>Xbox One</h2>

          <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam feugiat, magna
ornare euismod consectetur, dolor arcu finibus erat, in finibus ex elit quis nunc. Aliquam
erat volutpat. Cras posuere feugiat ligula nec lacinia.</p>

          <a href="product.html" class="btn btn-default">Read More</a>

        </div> <!-- tab-text -->

        <img class="slide-img" src="img/xbox.png"/>

      </div>

      <div role="tabpanel" class="tab-pane" id="discount">

        <div class="tab-text">

          <h2>Playstation 4</h2>

          <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam feugiat, magna
ornare euismod consectetur, dolor arcu finibus erat, in finibus ex elit quis nunc. Aliquam
erat volutpat. Cras posuere feugiat ligula nec lacinia.</p>

          <a href="product.html" class="btn btn-default">Read More</a>

        </div> <!-- tab-text -->

        <img class="slide-img" src="img/ps4.png"/>
```

```html
      </div>

      <div role="tabpanel" class="tab-pane" id="premium">

        <div class="tab-text">

          <h2>Microsoft Surface</h2>

          <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam feugiat, magna
ornare euismod consectetur, dolor arcu finibus erat, in finibus ex elit quis nunc. Aliquam
erat volutpat. Cras posuere feugiat ligula nec lacinia.</p>

          <a href="product.html" class="btn btn-default">Read More</a>

        </div> <!-- tab-text -->

        <img class="slide-img" src="img/surface.png"/>

      </div>

      <div role="tabpanel" class="tab-pane" id="gift-idea">

        <div class="tab-text">

          <h2>Vizio Smart TV</h2>

          <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam feugiat, magna
ornare euismod consectetur, dolor arcu finibus erat, in finibus ex elit quis nunc. Aliquam
erat volutpat. Cras posuere feugiat ligula nec lacinia.</p>

          <a href="product.html" class="btn btn-default">Read More</a>

        </div> <!-- tab-text -->

        <img class="slide-img" src="img/tv.png"/>

      </div>

    </div>

    </div> <!-- jumbotron -->


    <section id="products" class="">

      <div class="row">

  <div class="col-md-4">

    <div class="thumbnail">

      <img src="img/s5.png">

      <div class="caption">

        <h4 class="pull-right">$699.99</h4>

        <h4><a href="product.html">Samsung Galaxy S5</a></h4>
```

```html
        <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam feugiat, magna
ornare euismod</p>

        </div> <!-- caption -->

        <div class="ratings" id="">

          <p class="pull-right">15 Reviews</p>

          <p>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star"></span>

          </p>

        </div>

      </div> <!-- thumbnail -->

    </div> <!-- col-md-4 -->

    <div class="col-md-4">

      <div class="thumbnail">

        <img src="img/xbox.png">

        <div class="caption">

          <h4 class="pull-right">$399.99</h4>

          <h4><a href="product.html">Xbox One</a></h4>

          <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam feugiat, magna
ornare euismod</p>

        </div> <!-- caption -->

        <div class="ratings" id="">

          <p class="pull-right">8 Reviews</p>

          <p>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star-empty"></span>
```

```html
          </p>

        </div>

      </div> <!-- thumbnail -->

    </div> <!-- col-md-4 -->

    <div class="col-md-4">

      <div class="thumbnail">

        <img src="img/ps4.png">

        <div class="caption">

          <h4 class="pull-right">$699.99</h4>

          <h4><a href="product.html">Playstation 4</a></h4>

          <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam feugiat, magna
ornare euismod</p>

        </div> <!-- caption -->

        <div class="ratings" id="">

          <p class="pull-right">4 Reviews</p>

          <p>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star"></span>

      <span class="glyphicon glyphicon-star"></span>

          </p>

        </div>

      </div> <!-- thumbnail -->

    </div> <!-- col-md-4 -->

      </div> <!-- row -->

      <div class="row">

    <div class="col-md-4">

      <div class="thumbnail">

        <img src="img/tv.png">

        <div class="caption">

          <h4 class="pull-right">$599.99</h4>
```

```
            <h4><a href="product.html">Vizio Smart TV</a></h4>

            <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam feugiat, magna
ornare euismod</p>

          </div> <!-- caption -->

          <div class="ratings" id="">

            <p class="pull-right">12 Reviews</p>

            <p>

        <span class="glyphicon glyphicon-star"></span>

        <span class="glyphicon glyphicon-star"></span>

        <span class="glyphicon glyphicon-star"></span>

        <span class="glyphicon glyphicon-star"></span>

        <span class="glyphicon glyphicon-star-empty"></span>

            </p>

          </div>

        </div> <!-- thumbnail -->

      </div> <!-- col-md-4 -->

      <div class="col-md-4">

        <div class="thumbnail">

          <img src="img/surface.png">

          <div class="caption">

            <h4 class="pull-right">$499.99</h4>

            <h4><a href="product.html">Microsoft Surface</a></h4>

            <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam feugiat, magna
ornare euismod</p>

          </div> <!-- caption -->

          <div class="ratings" id="">

            <p class="pull-right">9 Reviews</p>

            <p>

        <span class="glyphicon glyphicon-star"></span>

        <span class="glyphicon glyphicon-star"></span>

        <span class="glyphicon glyphicon-star-empty"></span>

        <span class="glyphicon glyphicon-star-empty"></span>
```

```html
          <span class="glyphicon glyphicon-star-empty"></span>

          </p>

        </div>

      </div> <!-- thumbnail -->

    </div> <!-- col-md-4 -->

    <div class="col-md-4">

      <div class="thumbnail">

        <img src="img/iphone.png">

        <div class="caption">

          <h4 class="pull-right">$599.99</h4>

          <h4><a href="product.html">iPhone 5</a></h4>

          <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam feugiat, magna
ornare euismod</p>

        </div> <!-- caption -->

        <div class="ratings" id="">

          <p class="pull-right">22 Reviews</p>

          <p>

        <span class="glyphicon glyphicon-star"></span>

        <span class="glyphicon glyphicon-star"></span>

        <span class="glyphicon glyphicon-star"></span>

        <span class="glyphicon glyphicon-star"></span>

        <span class="glyphicon glyphicon-star"></span>

          </p>

        </div>

      </div> <!-- thumbnail -->

    </div> <!-- col-md-4 -->

      </div> <!-- row -->

    </section>

  </div> <!-- /container -->

  <footer>

<h1 align="center">Vijay Yadav</h1>

  </footer>
```

```
<!-- Bootstrap core JavaScript

===================================================== -->

<!-- Placed at the end of the document so the pages load faster -->

<script
src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.2/jquery.min.js"></script>

    <script src="js/bootstrap.min.js"></script>

  </body>

</html>
```

Output: -