LESSON#3 CSS Media Queries and Transitions

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CSS Media Query

- **CSS Media Query** gives you a way to apply CSS only when the browser and device environment matches a rule that you specify, for example (e.g. viewport is wider than 480 pixels)
- Media queries are a key part of responsive web design, as they allow you to create different layouts depending on the size of the viewport, and be used to detect other things on the environment.

```
CSS

@media media-type and (media-feature-rule) {
  /* CSS rules go here */
}
```

CSS Media Query

- It consists of:
  - A media type, which tells the browser what kind of media this code is for (e.g. print, or screen).
  - A media expression, which is a rule, or test that must be passed for the contained CSS to be applied.
  - A set of CSS rules that will be applied if the test passes and the media type is correct.

Media Types

- All
- Print
- Screen

```
@media print {
  body {
    font-size: 12pt;
  }
}
```

```
@media screen and (width: 600px) {
  body {
    color: red;
  }
}
```

```
@media screen and (min-width: 600px), screen and (orientation: landscape) {
  body {
    color: blue;
  }
}
```

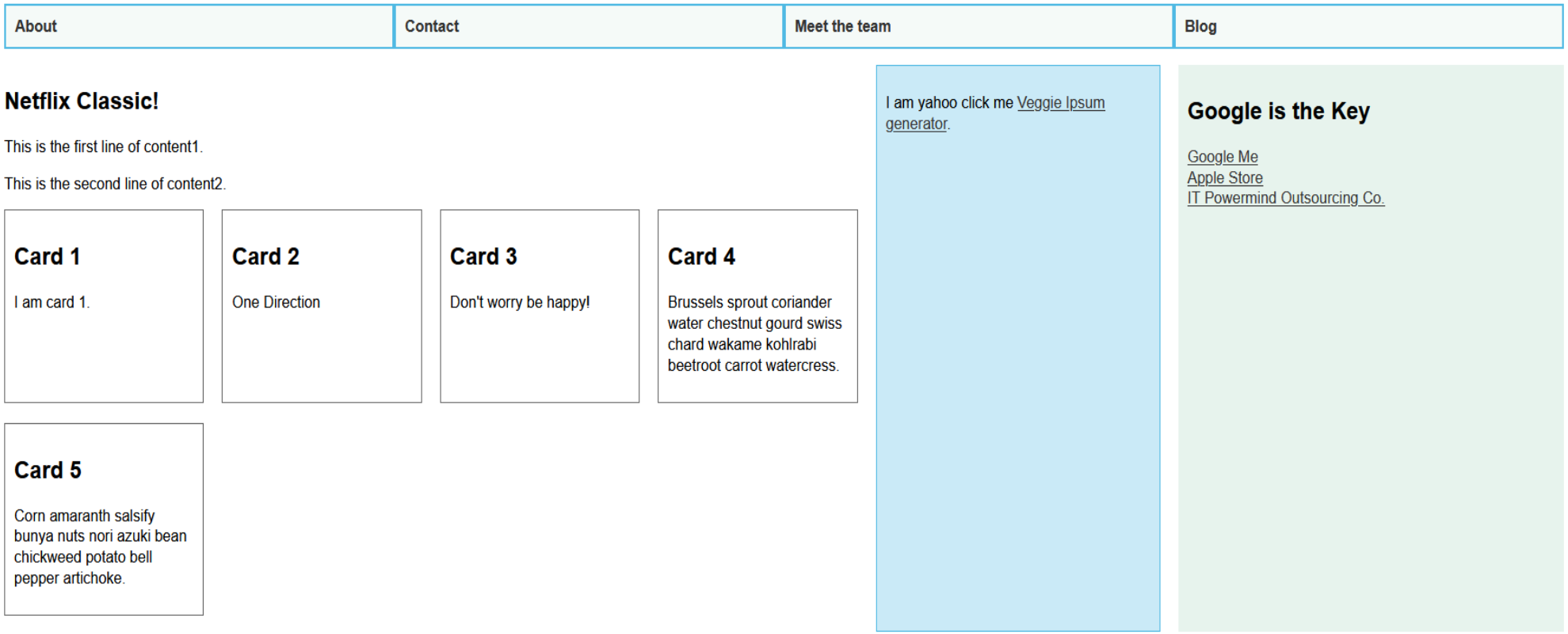
Sample Exercise:

```html
<!doctype html>
<html lang="en">
  <head>
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width" />
    <title>
      Media Queries: a simple mobile first design, adding a grid component
    </title>
    <style>
      * {
        box-sizing: border-box;
      }

      body {
        width: 90%;
        margin: 2em auto;
        font:
          1em/1.3 Arial,
          Helvetica,
          sans-serif;
      }

      a:link,
      a:visited {
        color: #333;
      }

      nav ul,
      aside ul {
        list-style: none;
        padding: 0;
      }

      nav a:link,
      nav a:visited {
        background-color: rgb(207 232 220 / 20%);
        border: 2px solid rgb(79 185 227);
        text-decoration: none;
        display: block;
        padding: 10px;
        color: #333;
        font-weight: bold;
      }

      nav a:hover {
        background-color: rgb(207 232 220 / 70%);
      }

      nav a:hover {
        background-color: rgb(207 232 220 / 70%);
      }

      .content {
        margin-bottom: 1em;
      }

      .related {
        background-color: rgb(79 185 227 / 30%);
        border: 1px solid rgb(79 185 227);
        padding: 10px;
      }

      .sidebar {
        background-color: rgb(207 232 220 / 50%);
        padding: 10px;
      }

      article {
        margin-bottom: 1em;
      }

      .grid {
        list-style: none;
        margin: 0;
        padding: 0;
        display: grid;
        gap: 20px;
        grid-template-columns: repeat(auto-fill, minmax(200px, 1fr));
      }

      .grid li {
        border: 1px solid #666;
        padding: 10px;
      }

      @media screen and (min-width: 40em) {
        article {
          display: grid;
          grid-template-columns: 3fr 1fr;
          column-gap: 20px;
        }

        nav ul {
          display: flex;
        }
```

```
    nav li {
      flex: 1;
    }
  }

  @media screen and (min-width: 70em) {
    main {
      display: grid;
      grid-template-columns: 3fr 1fr;
      column-gap: 20px;
    }

    article {
      margin-bottom: 0;
    }

    footer {
      border-top: 1px solid #ccc;
      margin-top: 2em;
    }
  }
</style>
</head>

<body>
```

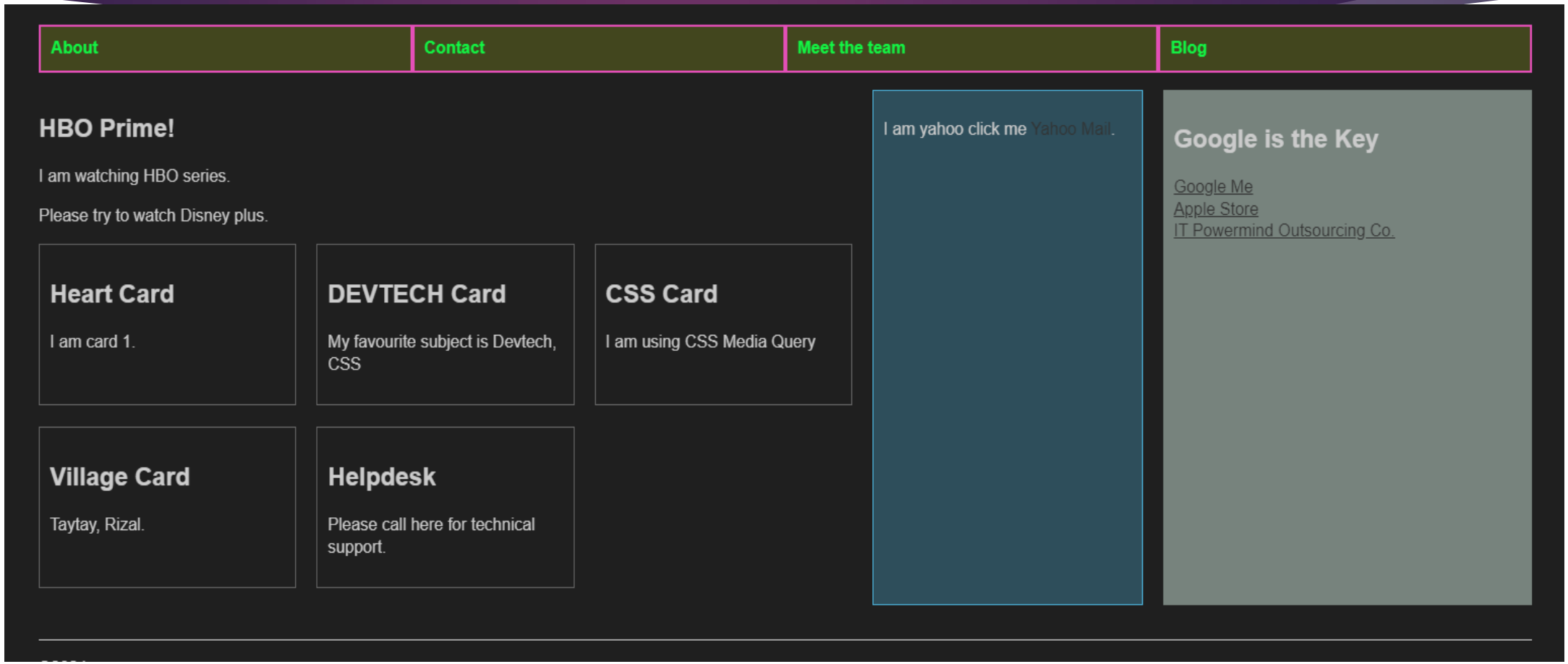
```
<body>
  <div class="wrapper">
    <header>
      <nav>
        <ul>
          <li><a href="">About</a></li>
          <li><a href="">Contact</a></li>
          <li><a href="">Meet the team</a></li>
          <li><a href="">Blog</a></li>
        </ul>
      </nav>
    </header>
    <main>
      <article>
        <div class="content">
          <h1>Netflix Classic!</h1>
          <p>
          This is the first line of content1.
          </p>

          <p>
          This is the second line of content2.
          </p>

          <ul class="grid">
            <li>
              <h2>Card 1</h2>
              <p>
                I am card 1.
              </p>
            </li>
            <li>
              <h2>Card 2</h2>
              <p>
                One Direction
              </p>
            </li>
            <li>
              <h2>Card 3</h2>
              <p>
              Don't worry be happy!
              </p>
            </li>
            <li>
              <h2>Card 4</h2>
              <p>
                I am who am I.
              </p>
            </li>
```

Seatwork# CSS Media Queries



This presentation is created by: Dr. Pau Abesamis

Seatwork # CSS Media Queries



CSS Transitions

- Enable web developers to control the smooth transition between two states of an element. (e.g. when a user hovers over a button, the background color of the element can change seamlessly using CSS selectors and pseudo-classes.)
- They can animate various properties, enhancing user experience and interactivity by making changes visually appealing.

Key CSS Transition Properties

1. transition-property:

This property allows you to select the CSS properties that you want to animate during the transition(change).

```
transition-property: none | all | property | property1,
property2, ..., propertyN;
```

- **Values**:
  - **none** is used to specify that no property should be selected.
  - **all** is used to specify all the properties to be selected, though not all properties are animate-able, only the properties which are animate-able will be influenced.
  - We can specify a single **property** or a set of comma-separated properties **property1, property2, ..., propertyN**.

2. **transition-duration:** This property allows you to determine how long it will take to complete the transition from one CSS property to the other.

```
transition-duration: time;
```

3. **transition-timing function:** This property allows you to determine the speed of change and the manner of change, during the transition.

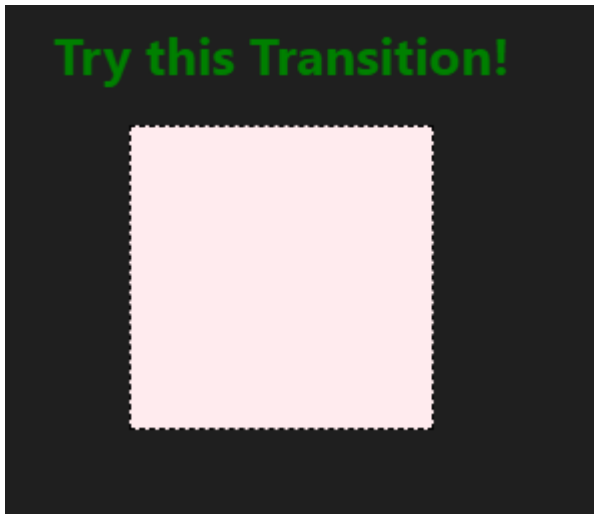
```
transition-timing-function: ease|ease-in|ease-out|ease-in-out|linear|
step-start|step-end;
```

4. transition-delay

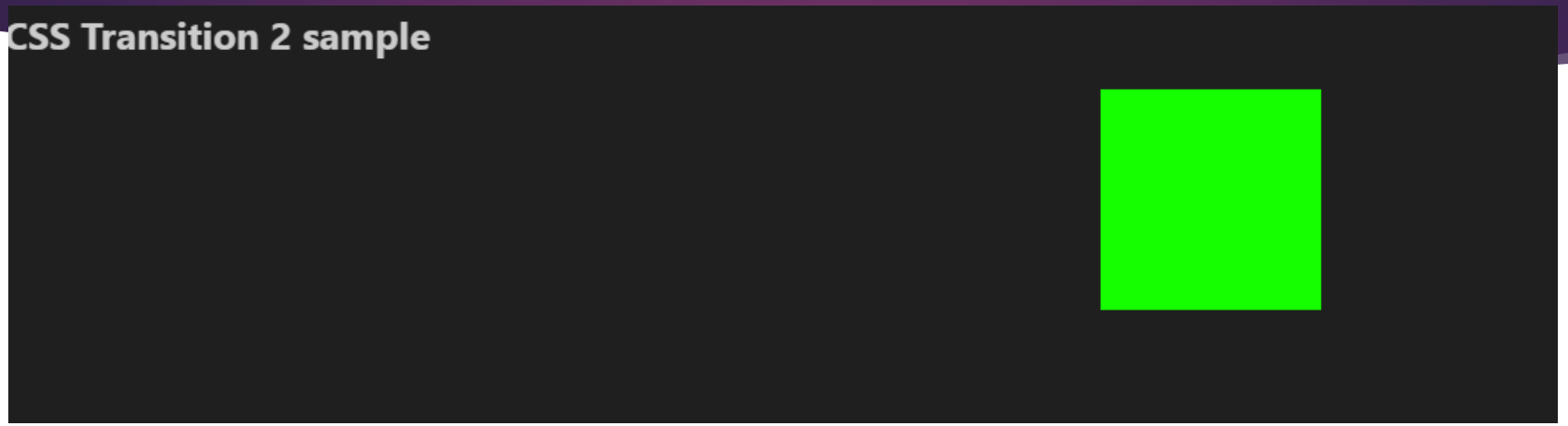
```
transition-delay: time;
```

Sample Code:

```html
<!DOCTYPE html>
<html>
<head>
    <title>CSS Transition</title>

    <style>
        h1 {
            color: green;
            text-align: center;
        }

        div.one {
            height: 150px;
            width: 150px;
            border: 1px dashed black;
            margin: 0 auto;
            background: #FFEBEE;
            transition: height 2s, width 2s, background 2s;
        }

        div.one:hover {
            height: 300px;
            width: 300px;
            background: #BBDEFB;
        }
    </style>

</head>

<body>
    <h1>Try this Transition!  </h1>
    <div class="one">
    </div>

</body>
</html>
```



Seatwork: CSS Transition



References

- https://developer.mozilla.org/en-US/docs/Learn/CSS/CSS_layout/Media_queries#media_types
- https://github.com/mdn/css-examples/blob/main/css-cookbook/media-objects.html
- https://www.geeksforgeeks.org/css-transitions/
- https://css-tricks.com/almanac/properties/t/transition/