# Next steps in HTML and CSS

Data Studio – Lede Program July 20, 2019

Ashlyn Still @ashlynstill as5962@columbia.edu

# How many different CSS style properties are there?

https://www.w3.org/Style/CSS/all-properties.en.html

### **Quick review!**

- CSS stands for Cascading Style Sheets because the computer reads it top to bottom and inherits the most recent reference OR the most specific reference to a selector.
- CSS describes how the HTML content should look on the page
- You attach CSS to your HTML elements via CSS selectors referencing tags, classes, and ids on your HTML elements.

### Inline styles vs separate CSS

```
21
 95
                                     22
96
                                     23
                                         /* .css file */
     <!-- .html file -->
                                     24
98
                                         p {
99
      Testing
                                     26
                                             background: #ccc;
100
                                     27
                                             color:#000;
101
                                     28
                                             border: solid black 1px;
102
                                     29
                                         }
103
                                     30
104
```

class attributes can be applied to multiple elements for style reptition and consistency



<div class="class-name" id="unique-id">Your content</div>



id attributes are unique to that specific element and should only be used once

```
class-name {
  font-size:28px;
  color:blue;
}
```

Class selectors in CSS are referenced with a period

```
#id-name {
  color:green;
}
```

ID selectors in CSS are referenced with a hash (#)

### CSS units of measurement

### Numeric values

 Length values for specifying e.g. element width, border thickness, or font size, and unitless integers for specifying e.g. relative line width or number of times to run an animation.

### Percentages:

 Specifying size or length — relative to a parent container's width or height for example, or the default font-size. These are often to facilitate responsive design (e.g. creating "liquid layouts", which automatically adjust to fit on different screen sizes).

#### Colors

Specifying background colors, text colors, etc.

#### Functions

Specifying e.g. background images or background image gradients.

### What can CSS do?

- A pure CSS mona lisa
- How to parallel park
- The Avengers

## Download the source file

https://github.com/ashlynstill/data-studio-learning-css

# Typography: How do we style our text in CSS?

```
<div class="header">
   <h1>This is a sample headline</h1>
   <h3>This is a sample h3 heading</h3>
</div>
<div class="body-text">
   This is a paragraph
   This is the <span>second</span> paragraph
</div>
```

# Layout: Styling our block elements with CSS

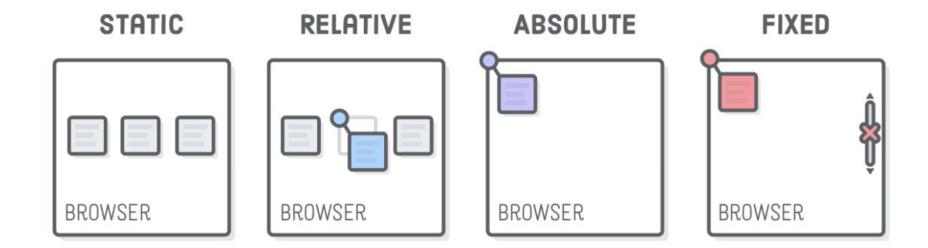
```
<div class="header">
   <h1>This is a sample headline</h1>
   <h3>This is a sample h3 heading</h3>
</div>
<div class="body-text">
   This is a paragraph
   This is the <span>second</span> paragraph
</div>
<div class="box-model">
   The box model
   <div id="nested-box"></div>
</div>
```

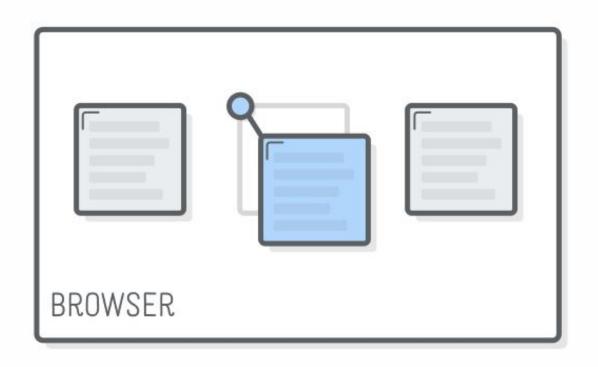
### The Box Model

- The browser renders every element on the page as a box
- The box model is how we style that box
- The box is made of four parts: content, padding, border, margin

# Nesting and positioning within the box model

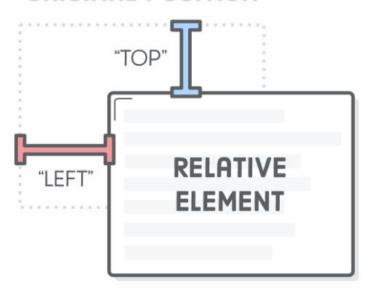
- We can use what we know about the box model to position elements inside each other
- Each "box" is relative to the other "boxes" on the page
- We can use the css `position` attribute to made adjustments to how the boxes relate to each other

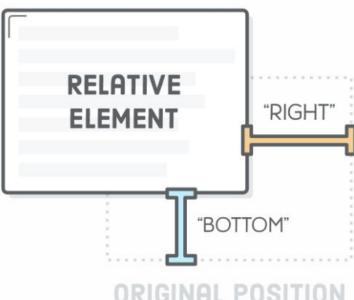




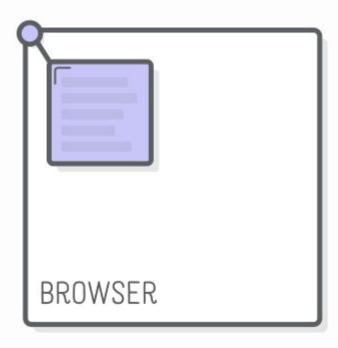
### **RELATIVE POSITIONING**

### **ORIGINAL POSITION**

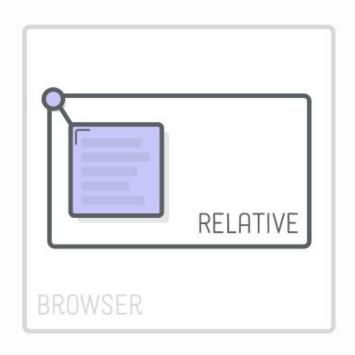




**ORIGINAL POSITION** 



### **ABSOLUTE POSITIONING**



# RELATIVELY ABSOLUTE POSITIONING



### **FIXED POSITIONING**

```
<div id="position-example">
   <div id="div-before">Div before</div>
    <div id="parent">
       <div id="child1">
           <h4>Child 1</h4>
           This is the first child div. Lorem ipsum dolor sit amet, consectetur adipisicing
           elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
       </div>
       <div id="child2">
           <h4>Child 2</h4>
           This is the second child div. Lorem ipsum dolor sit amet, consectetur adipisicing
           elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
       </div>
       <div id="child3">
           <h4>Child 3</h4>
           This is the third child div. Lorem ipsum dolor sit amet, consectetur adipisicing
           elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
       </div>
   </div>
   <div id="div-after">Div after</div>
</div>
```

### Today's activity:

- We're making restaurant menus again, but this time we're going to make them as web pages using HTML and CSS!
- You can re-clone the learning-css repo and empty out the HTML to write your own, or you can duplicate the directory we worked on today and clear out the work we did

### Requirements

- Nested divs
- Styled inline and block elements
- Side-by-side divs
- An image
- Proof you used the box model: Make some adjustments to margins and padding
- Use the elements of design we talked about on Wednesday!

## display: flex;