

CSS Values

Size values, Color values



CSS

Au Mau Duong
Technical Trainers

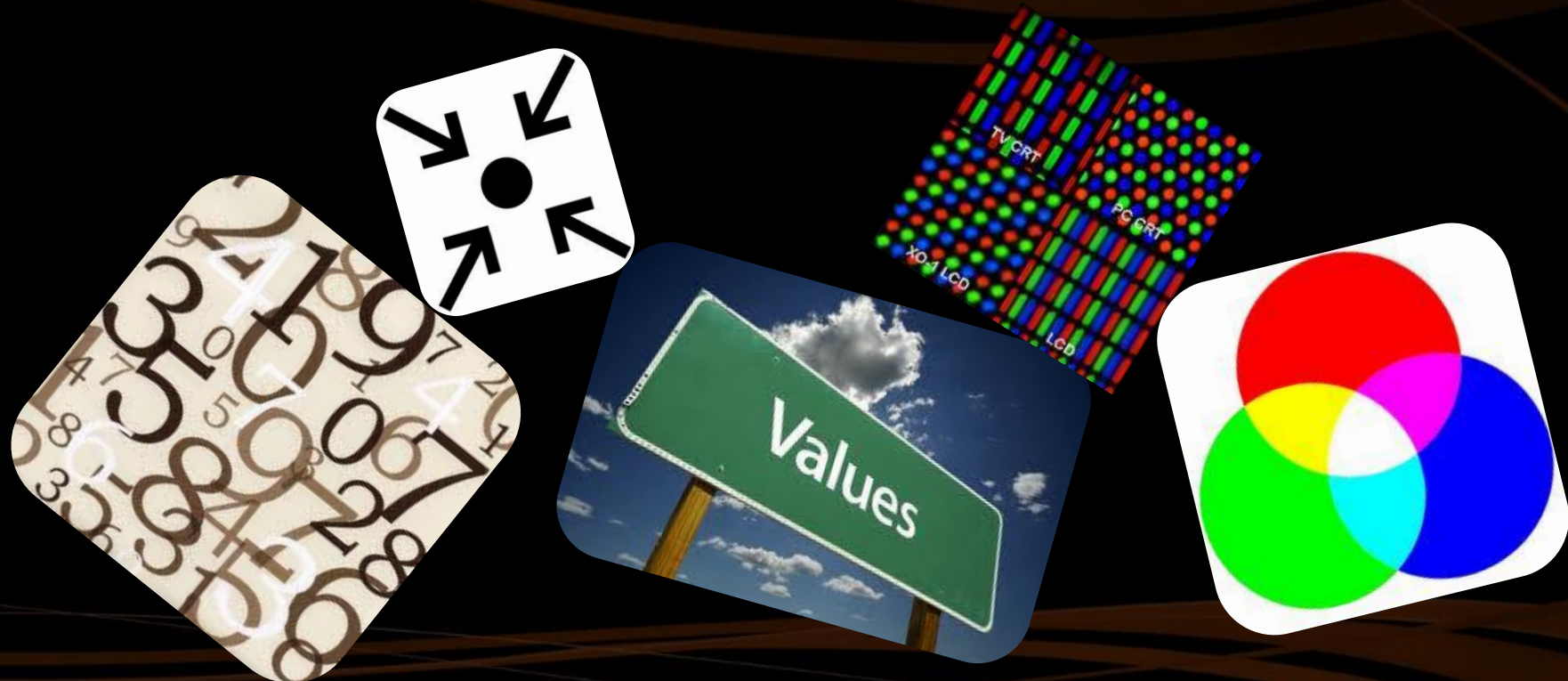


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```
body { ... }  
    font-family: Arial;  
    margin: 2px; width: 150px;  
    border: 1px solid blue;  
    border: 0;  
    background: #4ae871;  
    position: absolute; left: 0;  
    color: #2aa0bd;  
    display: inline;
```

CSS Values

- All values in CSS are strings
 - They can represent values that are not strings
 - I.e. **14px** means size 14 pixels
- Colors are set in a red-green-blue format (RGB)
 - Both in hex and decimal

```
li.nav-item { color: #44f1e1 }
```

```
li.nav-item { color: rgb(68, 241, 255) }
```

Size Values

- When setting a size (**width, height, font-size, ...**) the values are given as numbers
 - Multiple formats / metrics may be used
 - Pixels, **ems, rems**, e.g. **12px, 1.4em, 1.2rem**
 - Points, inches, centimeters, millimeters
 - E.g. **10pt (1pt=1/72in), 1in, 1cm, 1mm**
 - Percentages, e.g. **50%**
 - Of the size of the container / current font size
 - Zero can be used with no unit: **border: 0;**

Size Values (px)

- **Pixels**: fixed size units (logical pixels, not physical)

```
<div>  
  Lorem ipsum dolor  
  sit adipisicing elit.  
</div>
```

```
div {  
  font-size: 24px  
}
```



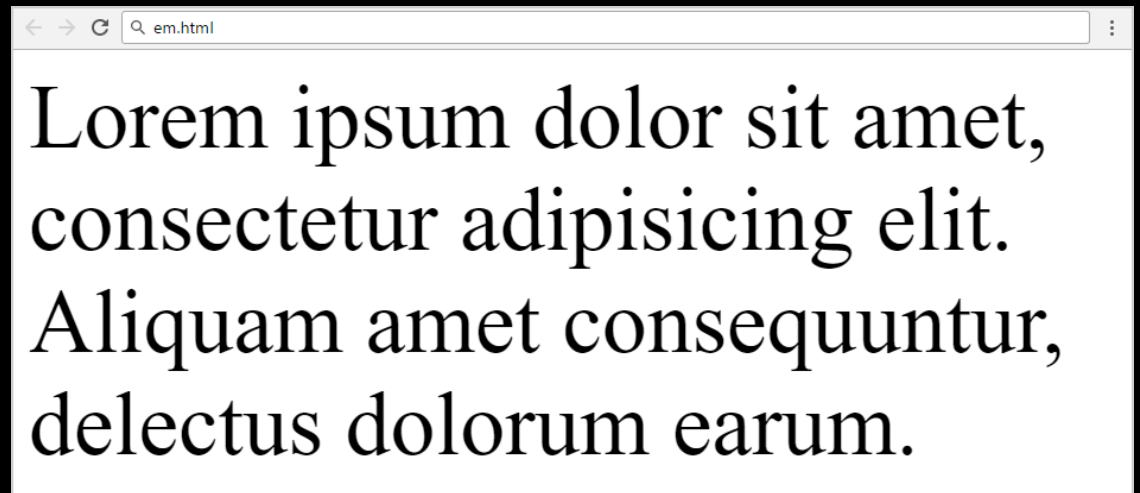
Size Values (em)

- **Em**'s: scalable unit (based on the parent element)

```
<div>
  <div class="nested-div">
    Lorem ipsum dolor
    sit adipisicing elit...
  </div>
</div>
```

Parent <div>
font: 24px

```
div { font-size: 24px }
.nested-div { font-size: 1.8em }
```



Lorem ipsum dolor sit amet,
consectetur adipisicing elit.
Aliquam amet consequuntur,
delectus dolorum earum.

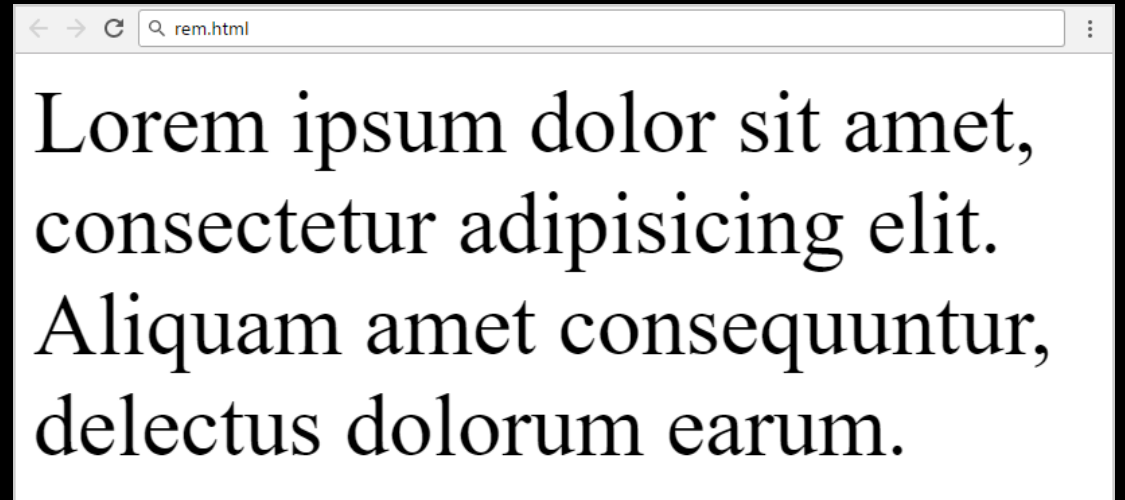
$1.8\text{em} = 1.8 * 24\text{px} = 43.2\text{px}$

<http://pxtoem.com>

Size Values (rem)

- **Rem's**: scalable unit (based on the **html** element)

```
<div>
  <div class="nested-div">
    Lorem ipsum dolor
    sit adipisicing elit...
  </div>
</div>
```



rem.html

Lorem ipsum dolor sit amet,
consectetur adipisicing elit.
Aliquam amet consequuntur,
delectus dolorum earum.

```
html { font-size: 25px }
div { font-size: 2rem }
.nested-div { font-size: 1.5rem }
```

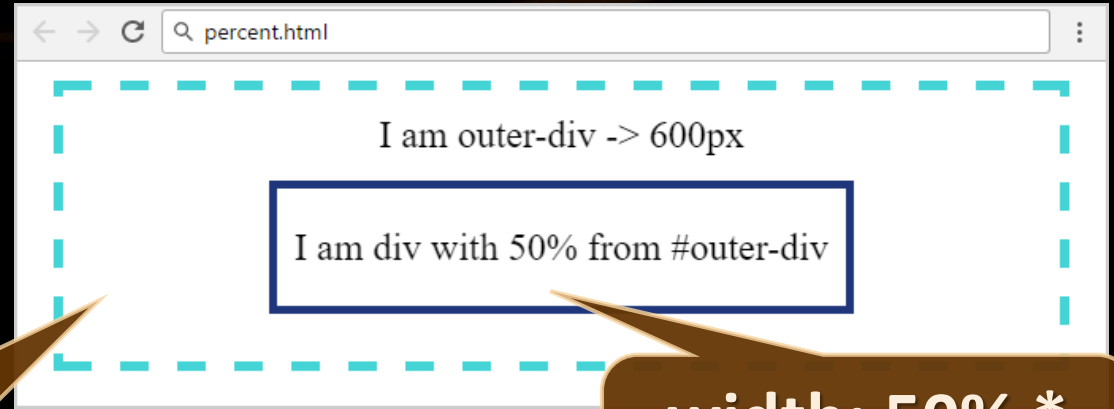
$2\text{rem} = 2 * 25\text{px} = 50\text{px}$

$1.5\text{rem} = 1.5 * 25\text{px} = 37.5\text{px}$

Size in % of the Parent

```
<div id="outer-div">  
  I am outer-div -> 600px  
  <div id="inner-div">  
    I am div with 50% ...  
  </div>  
</div>
```

width:
600px



width: 50% *
600px = 300px

```
#outer-div {  
  width: 600px;  
  text-align: center;  
}  
#inner-div {
```

```
  width: 50%;  
  text-align: center;  
  margin: 0 auto;  
  line-height: 50px;  
}
```


Color Values

- Colors in CSS can be represented in few ways
 - Using red-green-blue
 - Or red-green-blue-alpha

The opacity values are from **0.0** to **1.0**

```
color: #f1a2ff  
color: rgb(241, 162, 255)  
color: rgba(241, 162, 255, 0.1)
```

- Using hue-saturation-light
 - Or hue-saturation-light-alpha

```
color: hsl(291, 85%, 89%);  
color: hsla(291, 85%, 89%, 0.1);
```

Hex

```
<ul>  
  <li id="hex-rgb">Hex-RGB item</li>  
</ul>
```

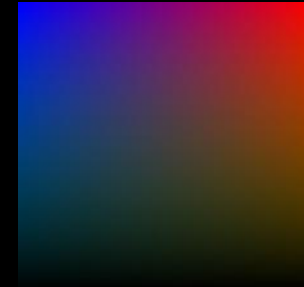
```
#hex-rgb {  
  color: #C02902;  
}
```

#RRGGBB or #RGB where
R, G, B are hex digits (0...F)



RGB


- RGB colors are defined with values for red, green and blue intensity
- Syntax:
 - `rgb(<red>, <green>, <blue>)` – decimal values
- The range for red, green and blue is between integers 0 and 255

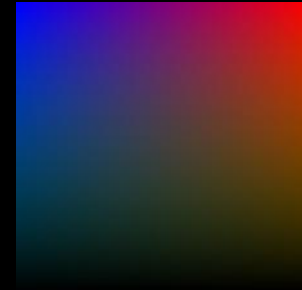


```
color: rgb (7, 242, 179)
```



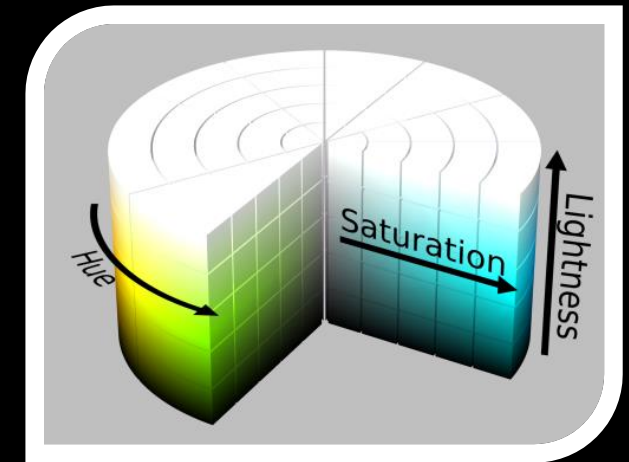
RGBA Colors

- Standard RGB colors with an opacity value for the color (alpha channel)
- Syntax:
 - `rgba(<red>, <green>, <blue>, <alpha>)`
 - The range for **red**, **green** and **blue** is in range `[0...255]`
 - The range for the alpha channel is between `0.0` and `1.0`
- Example:
 - `rgba(255, 0, 0, 0.5)` → 




HSL Colors

- Hue is a degree on the color wheel
 - **0** (or **360**) is red, **120** is green, **240** is blue
- Saturation is a percentage value
 - **100%** is the full color
- Lightness is also a percentage
 - **0%** is dark (black)
 - **100%** is light (white)
 - **50%** is the average

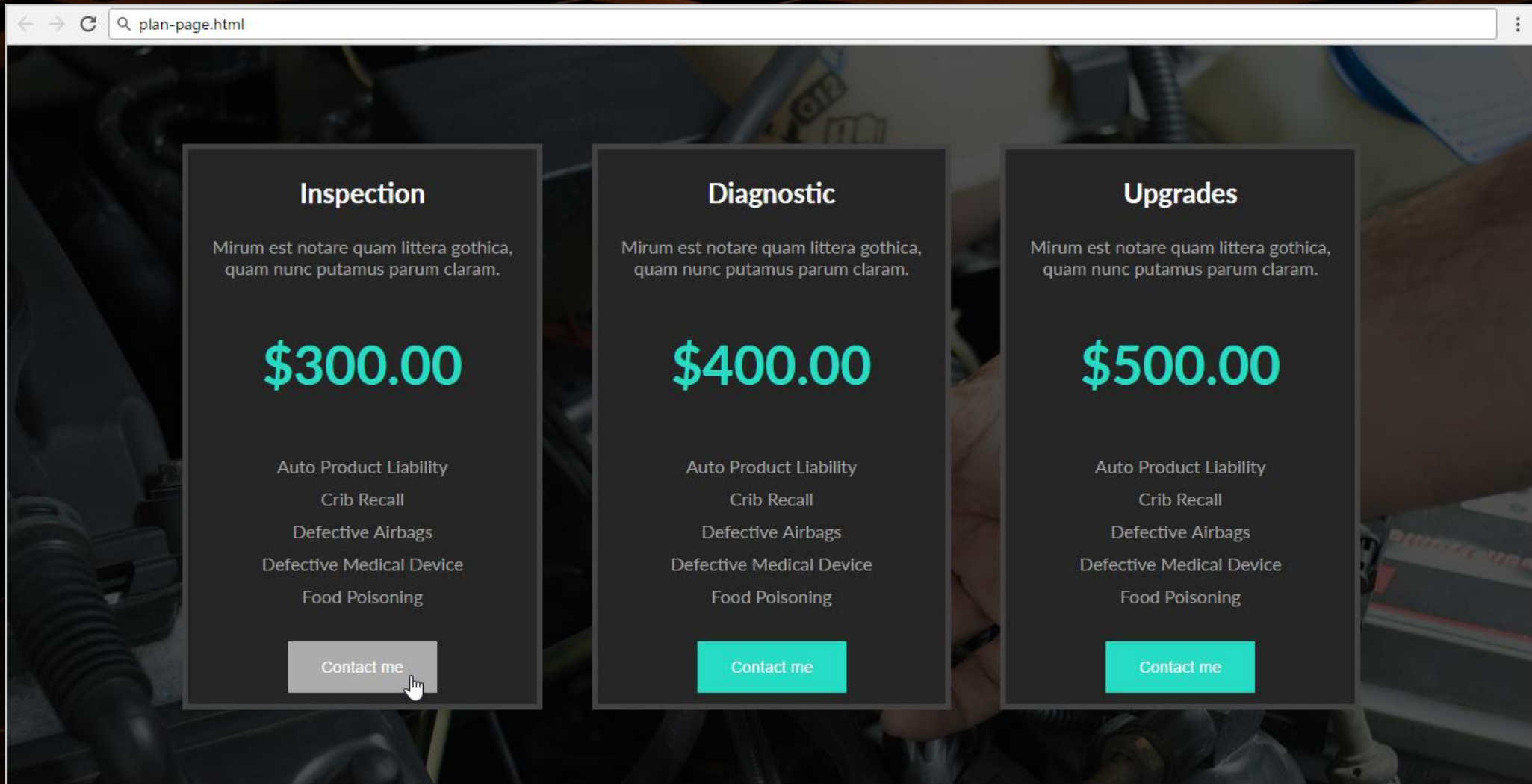


HSLA Colors

- HSLA allows a fourth value, which sets the Opacity (via the Alpha channel) of the element
- As RGBA is to RGB, HSLA is to HSL
- Supported in IE9+, Firefox 3+, Chrome, Safari, and in Opera 10+
- Example:
 - `hsla(0, 100%, 50%, 0.5)`
 - Result: 



Problem: Plan Page



Solution: Plan Page – CSS (1)

```
body {  
    background: url('plan-  
page.jpg');  
    background-size: cover;  
    font-size: 16px;  
    font-family: Lato, sans-  
serif;  
}  
section {  
    text-align: center;  
}
```

```
article {  
    background-color: #262626;  
    display: inline-block;  
    width: 23%;  
    margin: 80px 20px 0 20px;  
    border: 5px solid #424242;  
    color: #a1a1a1;  
}
```


Solution: Plan Page – CSS (2)

```
article h1 {  
    font-size: 1.5em;  
    color: #FFF;  
}  
article .price {  
    font-size: 3em;  
    font-weight: bold;  
    color: #27dcc4;  
}  
article ul {  
    padding: 0;  
}
```

```
article button {  
    background-color: #27dcc4;  
    color: #FFFFFFF;  
    padding: 15px 30px;  
    margin: 10px 0;  
    font-size: 0.9em;  
    cursor: pointer;  
    border: none;  
}
```

Solution: Plan Page – CSS (3)

```
article ul li {  
    list-style-type: none;  
    padding: 5px 0;  
}  
article button:hover {  
    background-color: #acacac;  
}
```

CSS References

- CSS Tricks
 - <http://css-tricks.com>
- The CSS documentation at WebPlatform.org:
 - <http://docs.webplatform.org/wiki/css>
- CSS documentation at Mozilla
 - <https://developer.mozilla.org/en-US/docs/CSS>
- CSS3 tutorial
 - <http://www.w3schools.com/css3/>

Summary

1. CSS values

2. Size values

- Px, em, rem, %

3. Color values

- Hex
- RGB, RGBA
- HSL, HSLA



CSS Values



Questions?

