

HTML & CSS

FRONT-END LANGUAGES

The languages your browser speaks

HTML



content
+ structure

CSS



style

JS



dynamism
+ usability

CONTENT

HTML



This is what Google cares about. Think of SEO.

APPEARANCE

css



How does it look?

DYNAMIC BEHAVIOR



Animate stuff on screen. Client-side form validation.

HTML



HTML

It's a **markup** language (== structure)

HTML

Your page has different contents

some text content..

some other content..

some third content..

HTML

HTML tags help you **identify** content

some text content..

h1

some other content..

h2

some third content..

p

HTML

Hence, **browser default styles** will apply

HTML

And you will also be able to apply **your own style rules** if you want

HTML SKELETON

```
<!DOCTYPE html>

<!-- end of file --&gt;</pre>
```

HTML SKELETON

```
<!DOCTYPE html>
<html>

</html>
<!-- end of file -->
```

HTML SKELETON

```
<!DOCTYPE html>
<html>
  <head>

    </head>
    <body>

      </body>
  </html>
<!-- end of file -->
```

HTML SKELETON - HEAD

```
<!DOCTYPE html>
<html>
  <head>
    <title>Some title</title>
    <meta charset="utf-8">
  </head>
  <body>

    </body>
</html>
<!-- end of file -->
```

HTML SKELETON - HEAD & GOOGLE

```
<head>
    <!-- Google result text-->
    <title>Le Wagon - Apprendre à coder - Bootcamp en ruby on rails
    <!-- Google result description-->
    <meta name="description" content="Le Wagon est la meilleure formation au développement web en France. Allez voir par vous-même les projets codés par nos anciens élèves ! Vous avez consulté cette page de nombreuses fois. Date de la dernière visite : 12/10/14">
</head>
```

Le Wagon - Apprendre à coder - Bootcamp en Ruby on Rails

www.lewagon.org/ ▾

Le Wagon est la meilleure formation au développement web en France. Allez voir par vous-même les projets codés par nos anciens élèves !

Vous avez consulté cette page de nombreuses fois. Date de la dernière visite : 12/10/14

HTML SKELETON - HEAD & FACEBOOK

```
<head>
    <meta property="og:title" content="Le Wagon - The French
    <meta property="og:image" content="facebook-card.jpg">
    <meta property="og:description" content="Le Wagon is the
    <meta property="og:site_name" content="Le Wagon"/>
</head>
```

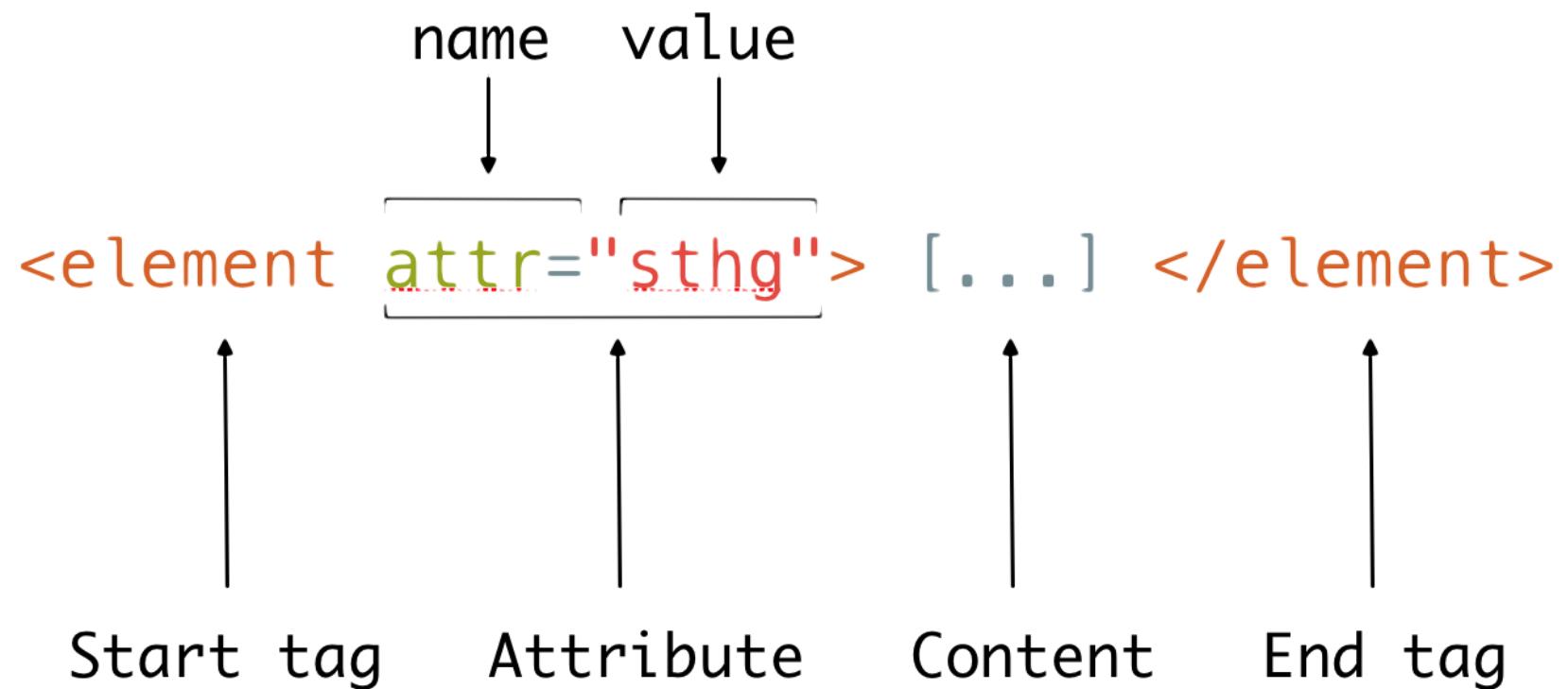
HTML SKELETON - HEAD & TWITTER

```
<head>
    <meta name="twitter:card" content="summary_large_image">
    <meta name="twitter:site" content="@Lewagonparis">
    <meta name="twitter:title" content="Le Wagon - The French Coding School">
    <meta name="twitter:description" content="Le Wagon is the first coding school in France to offer a 100% English curriculum.">
    <meta name="twitter:creator" content="@Lewagonparis">
    <meta name="twitter:image:src" content="http://twitter-cards.lewagon.com/images/card.png">
</head>
```

HTML SKELETON - BODY

```
<!DOCTYPE html>
<html>
  <head>
    <title>Some title</title>
    <meta charset="utf-8">
  </head>
  <body>
    <h1>Hello buddies</h1>
  </body>
</html>
```

ELEMENT SYNTAX



EXAMPLE

```
<a href="http://www.lewagon.org" target="_blank">  
    Le Wagon  
</a>
```

Result: [Le Wagon](http://www.lewagon.org)

QUIZZ

- What is the element name?
- What is the element content?
- What are the 2 attributes (name and value)?

TITLES

```
<h1>[ ... ]</h1>  <!-- Only one per page! SEO important -->  
  
<h2>[ ... ]</h2>  
<h3>[ ... ]</h3>  
<h4>[ ... ]</h4>  
<h5>[ ... ]</h5>  
<h6>[ ... ]</h6>
```

PARAGRAPHS

```
<p>
    Lorem ipsum dolor sit amet, consectetur adipisicing elit.
    Veritatis laboriosam mollitia autem at ab omnis iure quis
    asperiores inventore eos nam aut iusto officiis deserunt
    nihil, sequi tempore impedit quae?
</p>
```

EMPHASIZE

```
<p>
    You can emphasize <em>some words</em>,
    and even <strong>more if needed</strong>
</p>
```

LISTS

```
<h2>Shopping List</h2>
<ul>
  <li>Milk</li>
  <li>Butter</li>
</ul>

<h2>World Cup 2014</h2>
<ol>
  <li>Germany</li>
  <li>Argentina</li>
  <li>Netherlands</li>
  <li>Brazil</li>
</ol>
```

IMAGES

```

```

TABLES

```
<table>
  <thead>
    <tr>
      <th>First Name</th>
      <th>Last Name</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Boris</td>
      <td>Paillard</td>
    </tr>
    [ . . . ]
  </tbody>
</table>
```

FORMS

```
<form>
    <input type="email">
    <input type="password">
    <input type="submit" value="Log in">
</form>
```

MUCH MORE

- [codeguide.co](#)
- [MDN reference](#)

[CHALLENGE]

Challenge 1: your profile content

CSS



WEB WITHOUT CSS ?

Cut the <head> on surfingla.fr with Chrome dev tool.

LINKING STYLESHEET TO HTML PAGE

CSS SYNTAX

```
1 selector {  
2   property: value;  
3   property: value;  
4   property: value;  
5 }
```

selection of one or more elements of the page..

..on which we define style rules

CSS VOCABULARY

```
1 selector {  
2   property: value;  
3   property: value;  
4   property: value;  
5 }
```

↓

CSS selector

← **style rules**

↑

style properties

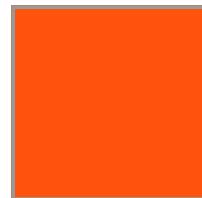
EXAMPLE

we select
all <h2> of the page

```
1 h2 {  
2   color: red;  
3   font-size: 20px;  
4   font-family: arial;  
5 }
```

COLORS

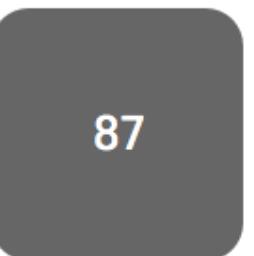
```
color: #FF530D;  
color: rgb(255, 83, 13);  
color: rgba(255, 83, 13, 1.0);
```



COLORS - TIPS

```
body {  
    color: rgb(10, 10, 10);  
}
```

- **RGB** stands for Red Green Blue
- each value is between 0 and 255
- for same values of R, G and B, you are on the grey scale



255

TEXT VS BACKGROUND

```
1 body {  
2   color: orange;  
3   background-color: yellow;  
4 }
```

text color

background color

BACKGROUND IMAGE

```
1 body {  
2   color: orange;  
3   background-image: url("background.jpg");  
4 }
```

background-image



FONTS - FAMILY (1)

A
serif

font-family
font-size
line-height
font-weight
letter-spacing
color
text-decoration
text-align
font-style
text-transform

FONTS - FAMILY (2)

A

sans-serif

font-family

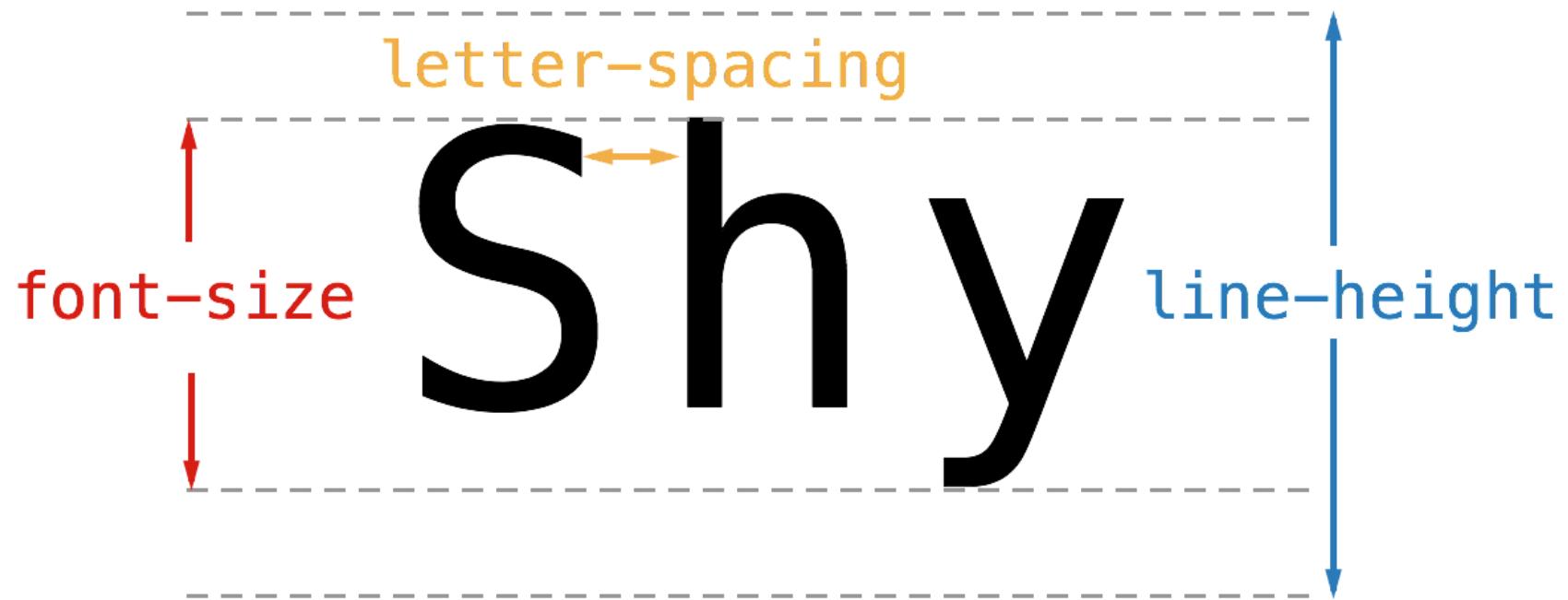
font-size
line-height
font-weight
letter-spacing
color
text-decoration
text-align
font-style
text-transform

FONTS - FAMILY (3)

a b
monospace

font-family
font-size
line-height
font-weight
letter-spacing
color
text-decoration
text-align
font-style
text-transform

FONTS - SIZE AND SPACING



FONTS - COLORS

a b

color: green;

font-family
font-size
line-height
font-weight
letter-spacing
color
text-decoration
text-align
font-style
text-transform

FONTS - DECORATION

ab

text-decoration: underline;

font-family
font-size
line-height
font-weight
letter-spacing
color
text-decoration
text-align
font-style
text-transform

FONTS - ALIGNMENT

this is a
paragraph
centered with text-align

text-align: center;

font-family
font-size
line-height
font-weight
letter-spacing
color
text-decoration
text-align
font-style
text-transform

FONTS - WEIGHT

[CHALLENGE]

Challenge 2: your profile with fonts and colors

DIV AND BOX MODEL

REAL LIFE...

airbnb

Paris

Rechercher quand je déplace la carte

Boris • AIDE • PUBLIEZ VOTRE ANNONCE

Chambre d'étudiant, vue tour eiffel

Logement entier
Tour Eiffel - Champ de Mars, Paris

36€ Par nuit

Very COOL flat // Heart of Paris.

Logement entier
Invalides - Ecole Militaire, Paris

160€ Par nuit

2 connexions sociales

2 pièces Opéra Galeries Lafayette

Logement entier
Saint-Lazare, Paris

130€ Par nuit

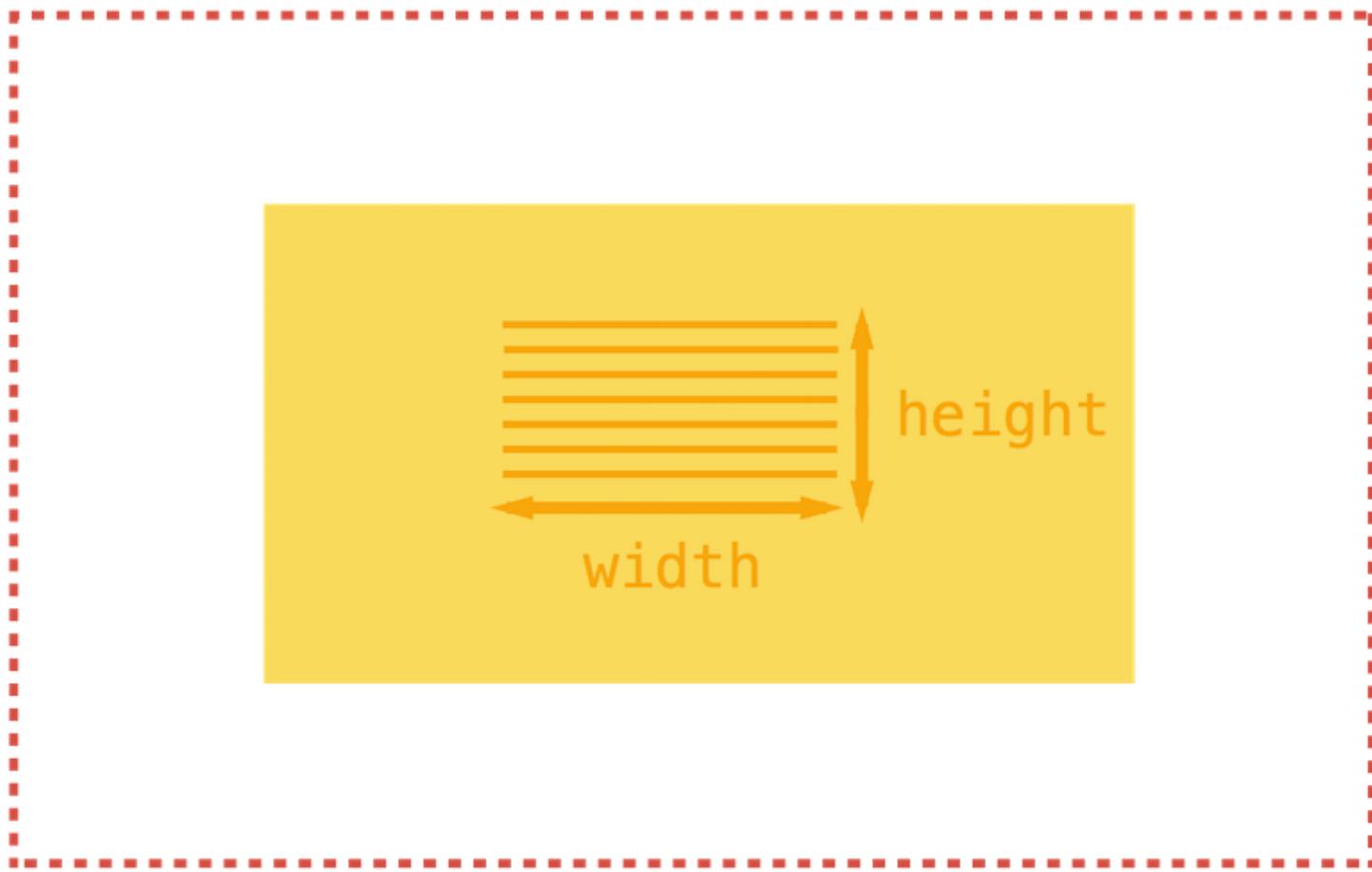
Cozy apartment in Paris

Logement entier
Nation, Paris

71€ Par nuit

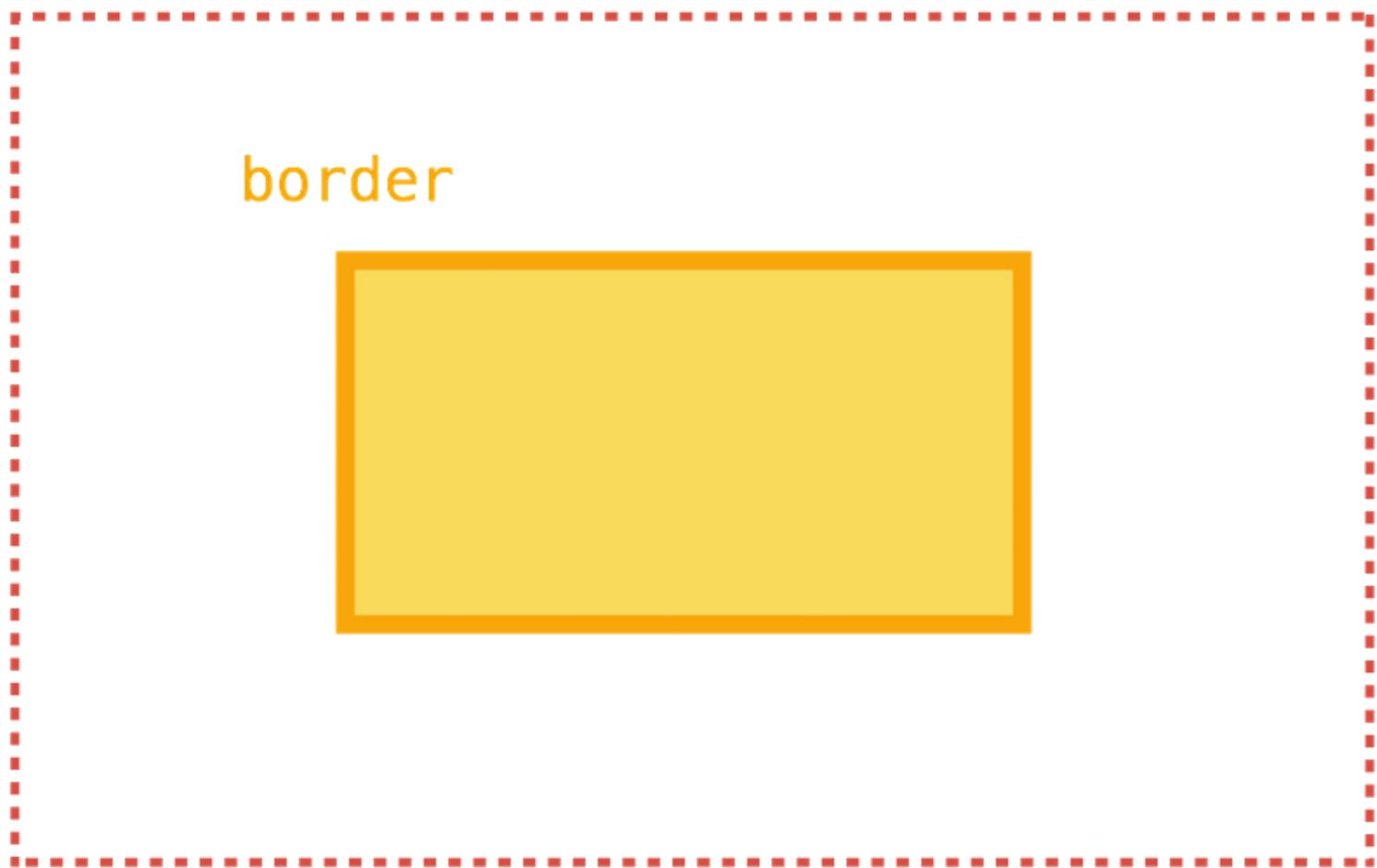
... IS MADE OF <DIV>

BOX MODEL - CONTENT



BOX MODEL - PADDING & MARGIN

BOX MODEL - BORDER



BORDERS

```
div{  
    border-top: 1px solid red;  
    border-right: 2px dotted black;  
    border-bottom: 1px dashed green;  
    border-left: 2px dotted black;  
}
```



BORDER RADIUS

BORDER RADIUS

BOX SHADOW



`box-shadow: 2px 2px 3px blue;`

UNITS

```
/* Absolute */
p {
    width: 50px;
}

/* Relative to parent */
p {
    width: 50%;
}

/* Relative to font size */
p {
    width: 2em;
}
```

[CHALLENGE]

Challenge 3: your profile with boxes

ID AND CLASS

**HOW DO YOU STYLE ONLY THE
LOGO?**

NAME YOUR TAG WITH ID

HOW DO YOU STYLE YOUR STAFF PICTURES?

```
1 
2
3 <ul>
HTML 4   <li></li>
5   <li></li>
6   <li></li>
7   <li></li>
8 </ul>
```

NAME YOUR TAGS WITH CLASS

HTML

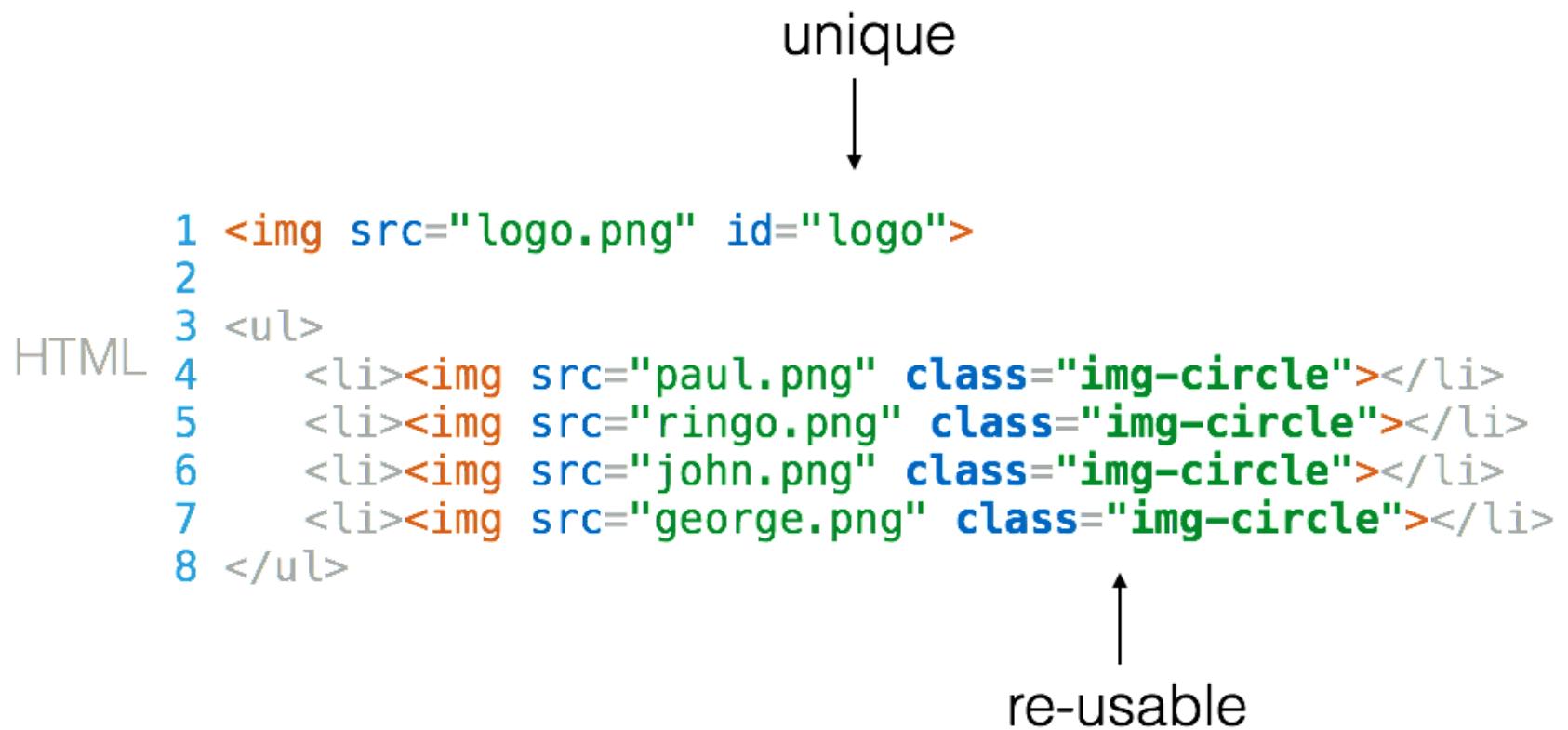
```
1 
2
3 <ul>
4   <li></li>
5   <li></li>
6   <li></li>
7   <li></li>
8 </ul>
```

CSS

```
1 .img-circle {
2   border-radius: 50%;
3 }
```



ID OR CLASS?



COMBINE (1)

COMBINE (2)

HTML 1

CSS

```
1 .img-circle {  
2   border-radius: 50%;  
3 }  
4  
5 .shadowed {  
6   box-shadow: 5px 5px 3px black;  
7 }
```



COMBINE (3)

HTML 1

```
1 .img-circle {  
2   border-radius: 10px;  
3 }  
4
```

CSS 5 .shadowed {
6 box-shadow: 5px 5px 3px black;
7 }
8
9 #leader {
10 border: 5px solid red;
11 }



THINK RE-USABLE / GENERIC

Quizz: which ones are well-named?

- | | |
|------------------|------------------|
| .form-pricing | .nav-portfolio |
| .form-horizontal | .nav-pills |
| .btn-signup | .bg-footer |
| .btn-rounded | .bg-banner |
| .btn-order | .bg-emerald |
| .img-building | .bg-blue |
| .img-circle | .wrapper-contact |
| #logo | #wrapper-contact |

THINK RE-USABLE / GENERIC

Don't be too specific if you don't need to

.form-pricing	.nav-portfolio
.form-horizontal	.nav-pills
.btn-signup	.bg-footer
.btn-rounded	.bg-banner
.btn-order	.bg-emerald
.img-building	.bg-blue
.img-circle	.wrapper-contact
#logo	#wrapper-contact

SELECTORS 101

ELEMENT SELECTOR

```
<!-- index.html -->
[ ... ]
<body>
    <h1>Hello World</h1>
</body>
```

combined with

```
/* app.css */
h1 {
    color: red;
    font-weight: bold;
}
```

makes the h1 element text red and bold.

CLASS SELECTOR

```
<!-- index.html -->
[ ... ]
<body>
    <p>This paragraph is not justified</p>
    <p class="text-justify">This one is</p>
    <p class="text-justify">This one also</p>
</body>
```

combined with

```
/* app.css */
.text-justify {
    text-align: justify;
}
```

will make only the second and third paragraphs justified.

ID SELECTOR

```
<!-- index.html -->
<body>
  <ul id="navigation">
    <li>About</li>
    <li>Contact</li>
  </ul>
</body>
```

combined with

```
/* app.css */
#navigation {
  position: fixed;
  top: 0;
}
```

DESCENDANT SELECTORS

```
<!-- index.html -->
<body>
  <ul id="navigation">
    <li>About</li>
    <li>Contact</li>
  </ul>
</body>
```

combined with

```
/* app.css */
#navigation li {
  float: left;
}
```

will make all the `li` children of the element `#navigation` floating left.

GROUPING

```
/* app.css */
h1, h2, h3 {
    font-weight: bold;
}
```

is a shortcut syntax for

```
/* app.css */
h1 {
    font-weight: bold;
}
h2 {
    font-weight: bold;
}
[ ... ]
```

PSEUDO CLASSES

```
/* app.css */
a {
    color: red;
    text-decoration: none;
}

a:hover {
    text-decoration: underline;
}
```

will make links underlined when the mouse hovers over them.

See [other pseudo classes](#)

QUIZZ #1

```
<!-- index.html -->
<body>
  <p class="text-red">
    Lorem ipsum dolor sit amet, consectetur adipisicing e
  </p>
</body>
```

combined with

```
/* app.css */
p {
  color: black;
}
.text-red {
  color: red;
}
```

QUIZZ #2

```
<!-- index.html -->
<body>
  <p id="bio" class="text-red">
    Lorem ipsum dolor sit amet, consectetur adipisicing e
  </p>
</body>
```

combined with

```
/* app.css */
.text-red {
  color: red;
}
#bio {
  color: green;
}
```

SPECIFICITY OF SELECTORS

```
p {  
    /* least specific */  
    color: black;  
}  
.text-red {            /*           ↓           */  
    color: red;  
}  
#bio {  
    /* most specific */  
    color: green;  
}
```

Check out the [specificity calculator](#)

[CHALLENGE]

Challenge 4: your profile - advanced design

CSS LAYOUT TECHNIQUES

FLOW - BLOCK

- Block elements: **h1, p, ul, li....**
- Takes maximum width **if width is not set**
- Line-breaks before **and** after

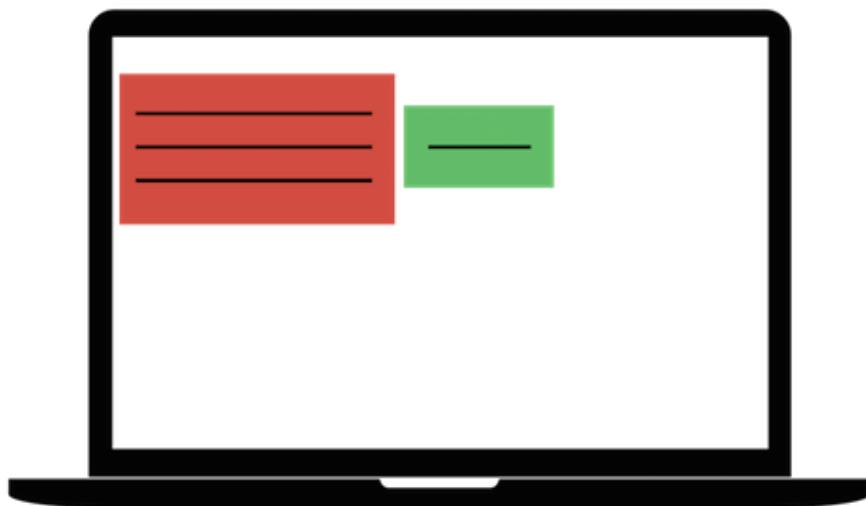
FLOW - BLOCK



```
#red {  
    display: block;  
    width: 400px;  
}  
  
#green {  
    display: block;  
}
```

FLOW - INLINE

- **Inline elements:** em, strong, a, img...
- **Takes width of its content**
- No line-breaks

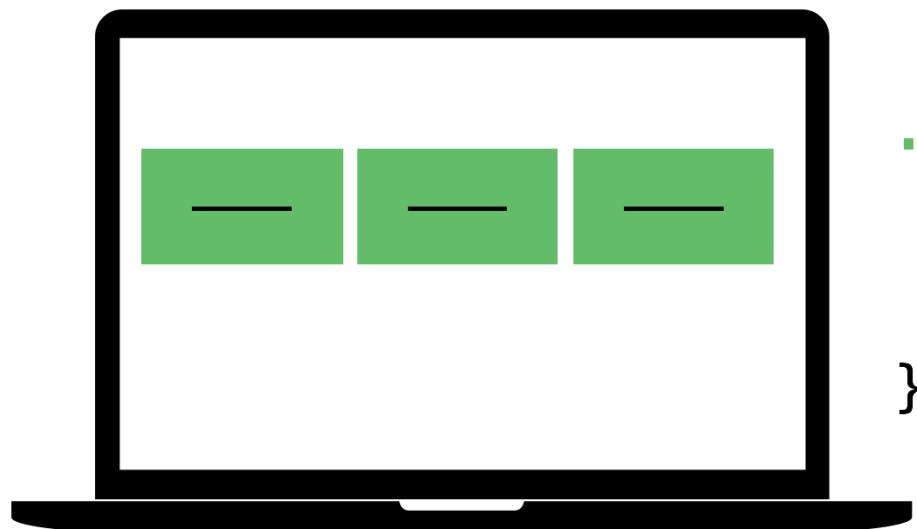


```
#red {  
    display: inline;  
}
```

```
#green {  
    display: inline;  
}
```

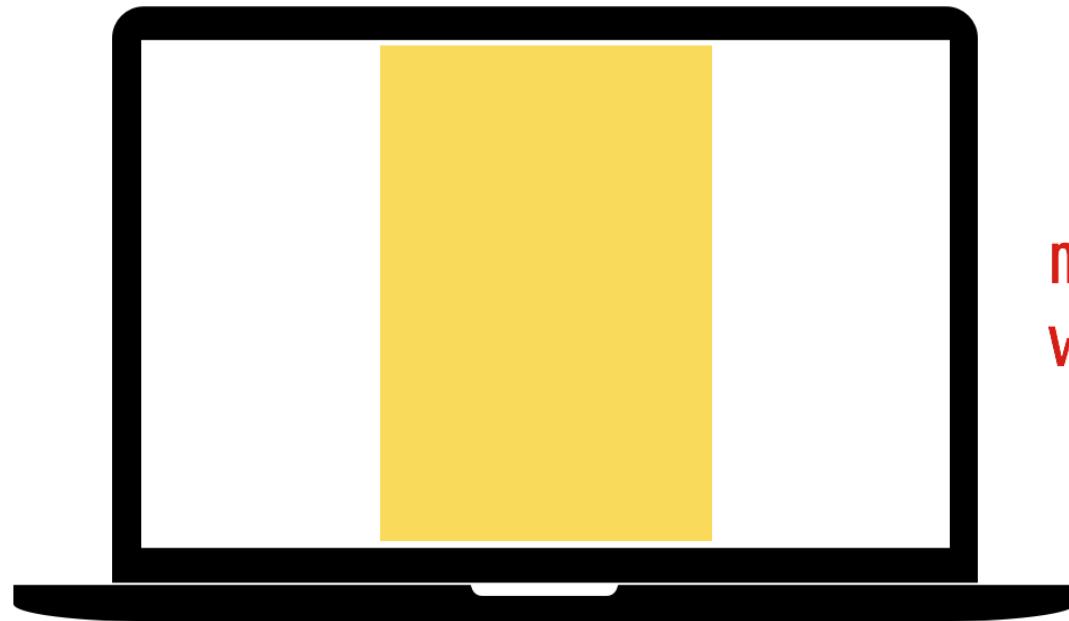
FLOW - INLINE-BLOCK

- Keep inline behavior (no line breaks)
- Keep box model properties like **width**
- E.g: usefull to design horizontal lists



```
.green {  
  display: inline-block;  
  width: 100px;  
  text-align: center;  
}
```

CENTERING A DIV

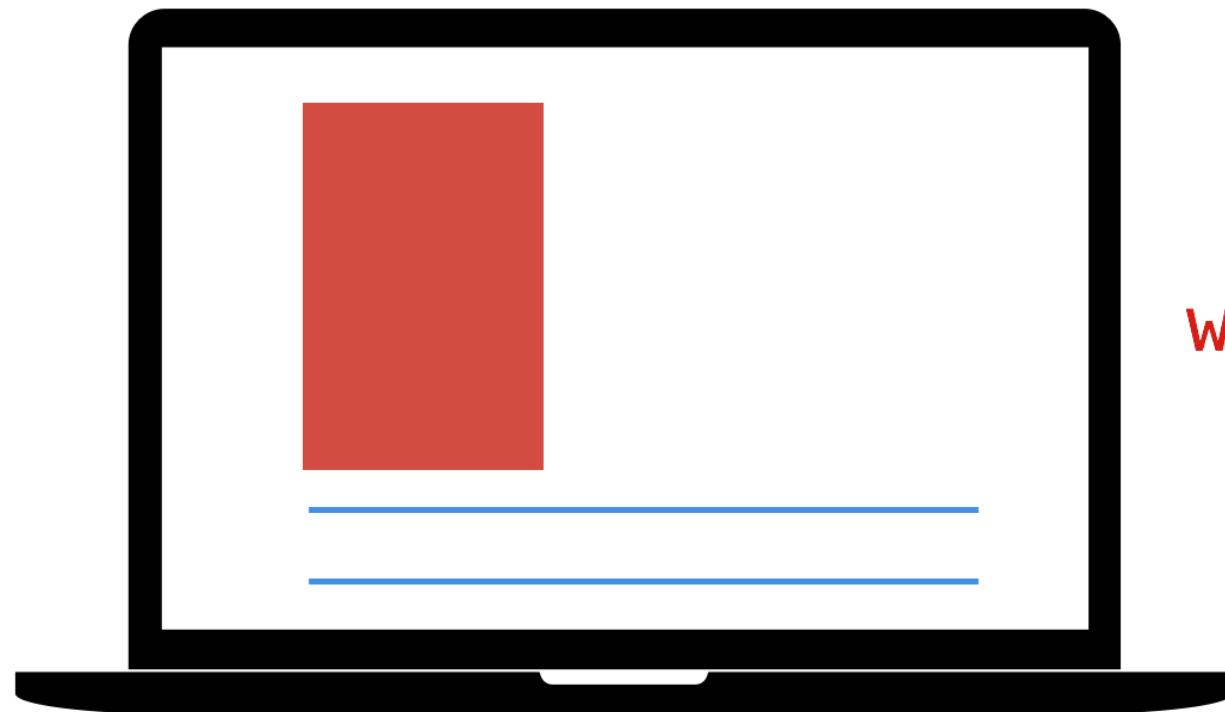


```
margin: 0 auto;  
width: 400px;
```

FLOATING TECHNIQUES - LEFT

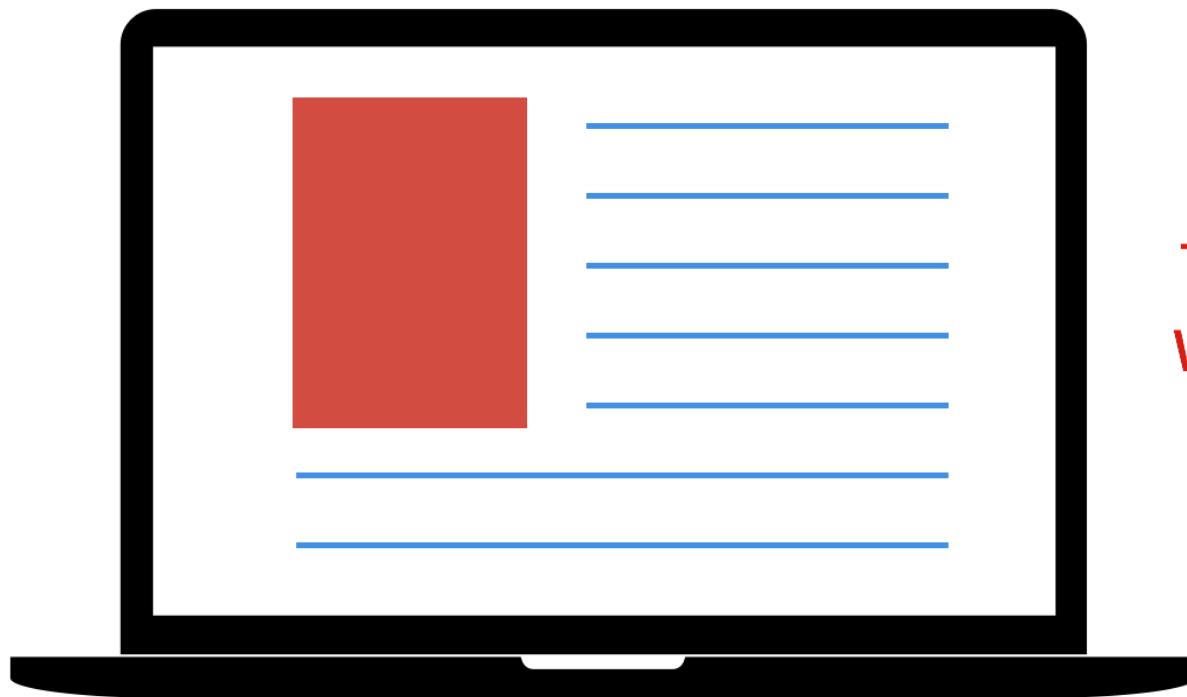


FLOATING TECHNIQUES - LEFT



`width: 30%;`

FLOATING TECHNIQUES - LEFT



`float: left;`
`width: 30%;`

FLOATING TECHNIQUES - LEFT



```
#left-container {  
    float: left;  
    width: 30%;  
}  
  
p {  
    clear: left;  
}
```

FLOATING TECHNIQUES - RIGHT



FLOATING TECHNIQUES - RIGHT



`width: 60%;`

FLOATING TECHNIQUES - RIGHT



`float: right;`
`width: 60%;`

FLOATING TECHNIQUES - RIGHT

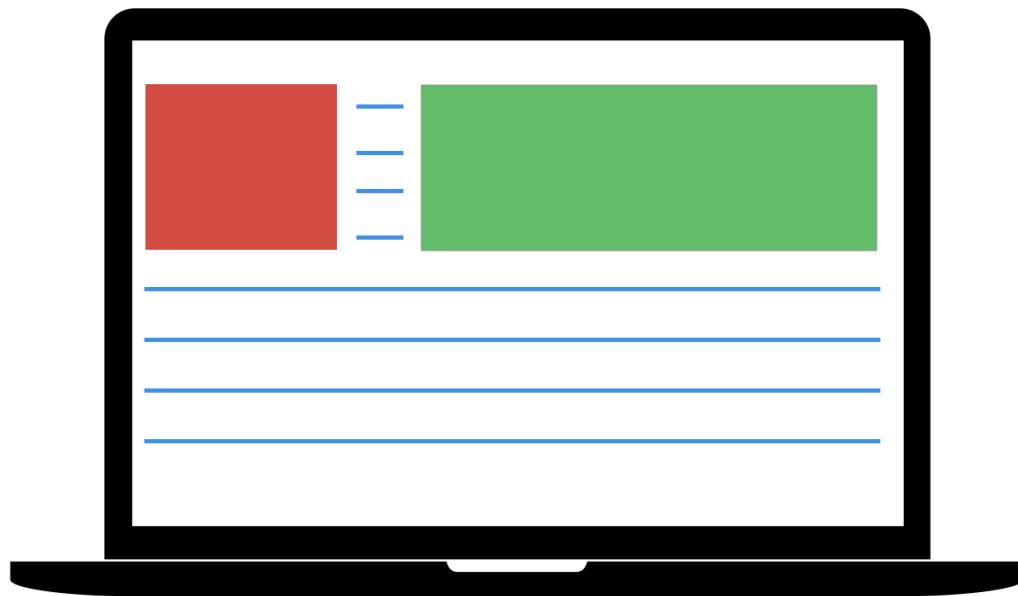


```
#right-container {  
    float: right;  
    width: 60%;  
}  
  
p {  
    clear: right;  
}
```

FLOATING TECHNIQUES - BOTH



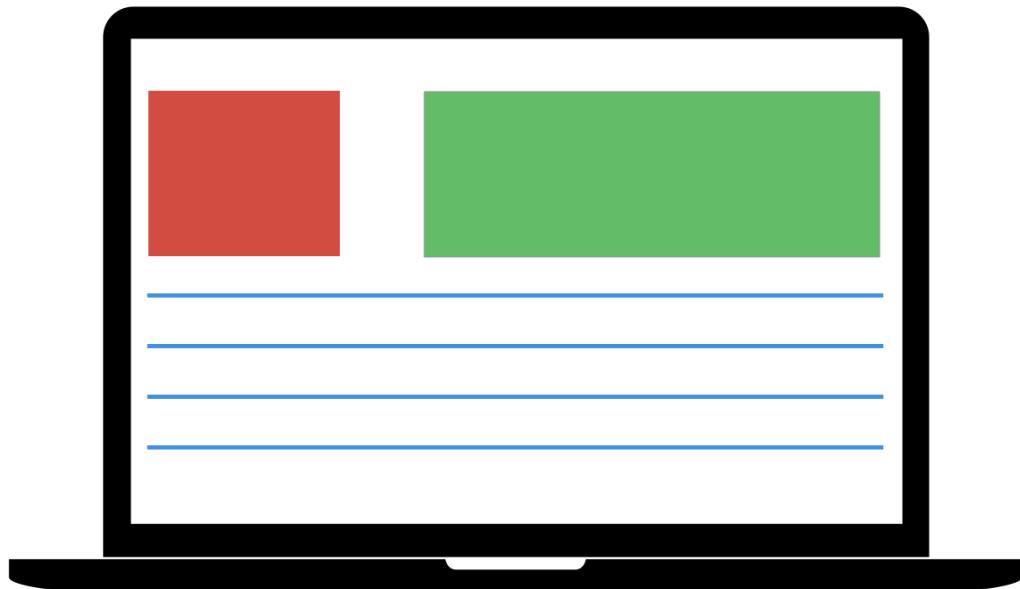
FLOATING TECHNIQUES - BOTH



```
#left-container {  
    float: left;  
    width: 30%;  
}
```

```
#right-container {  
    float: right;  
    width: 60%;  
}
```

FLOATING TECHNIQUES - BOTH

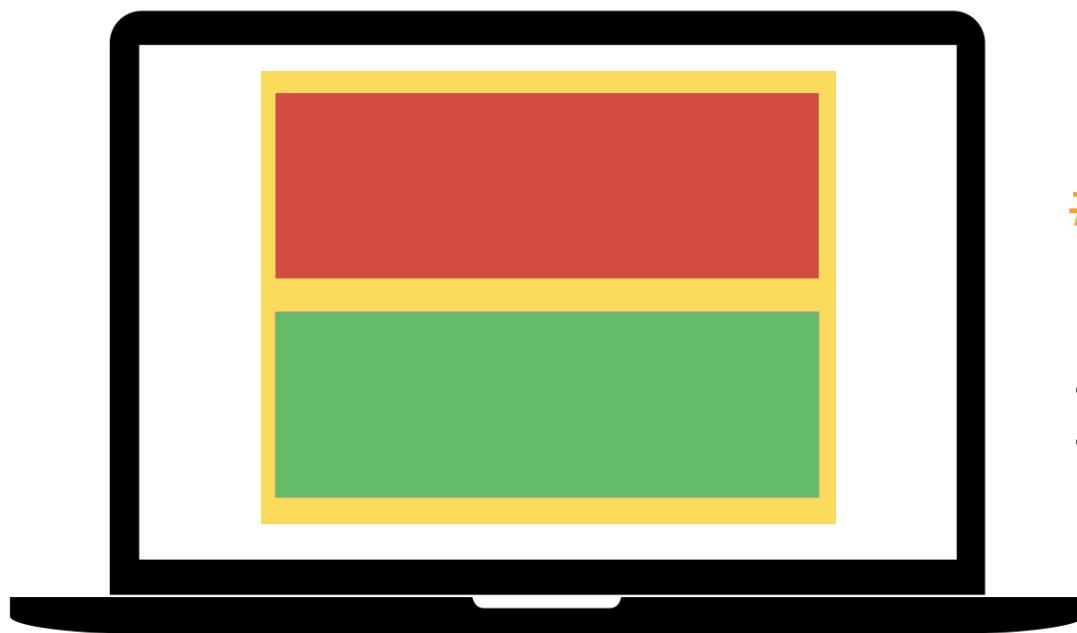


```
#left-container {  
    float: left;  
    width: 30%;  
}  
  
#right-container {  
    float: right;  
    width: 60%;  
}  
  
p {  
    clear: both;  
}
```

FLOATING TECHNIQUES - WRAPPER



FLOATING TECHNIQUES - WRAPPER



```
#wrapper {  
    margin: 0 auto;  
    width: 900px;  
}
```

FLOATING TECHNIQUES - WRAPPER



```
#wrapper {  
    margin: 0 auto;  
    width: 900px;  
    min-height: 10px;  
}  
  
#left-container {  
    float: left;  
    width: 30%;  
}  
  
#right-container {  
    float: right;  
    width: 60%;  
}
```

FLOATING TECHNIQUES - WRAPPER

POSITION - RELATIVE

- Usual position if no **top/right/bottom/left**
- **top/right/bottom/left** will offset from initial position

POSITION - ABSOLUTE

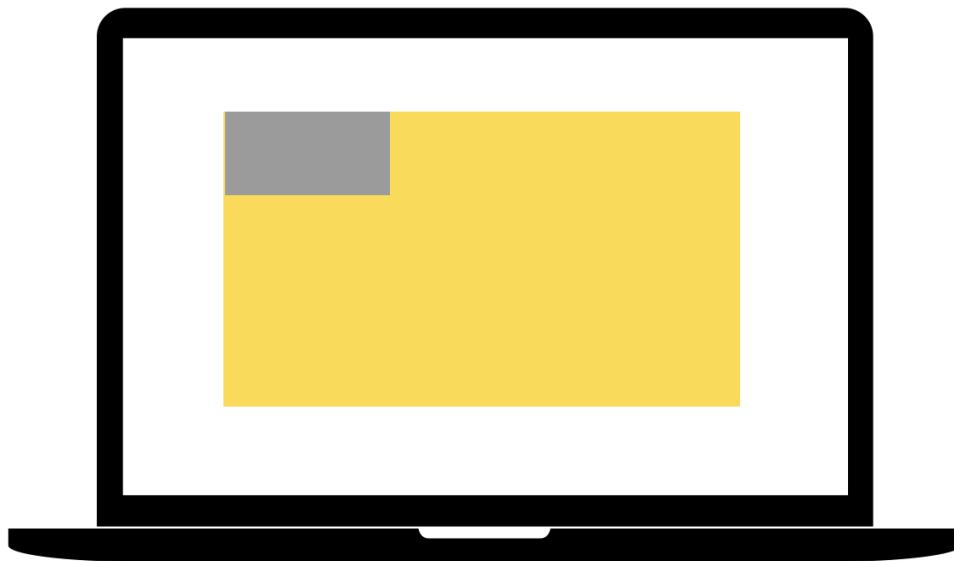
- **top/right/bottom/left** will offset relatively to **parent positioned element** (e.g. div)
- If no parent positioned element, **relatively to body**

RELATIVE > ABSOLUTE



```
#relative {  
  position: relative;  
  width: 900px;  
  margin: 0 auto;  
}
```

RELATIVE > ABSOLUTE



```
#relative {  
    position: relative;  
    width: 900px;  
    margin: 0 auto;  
}
```

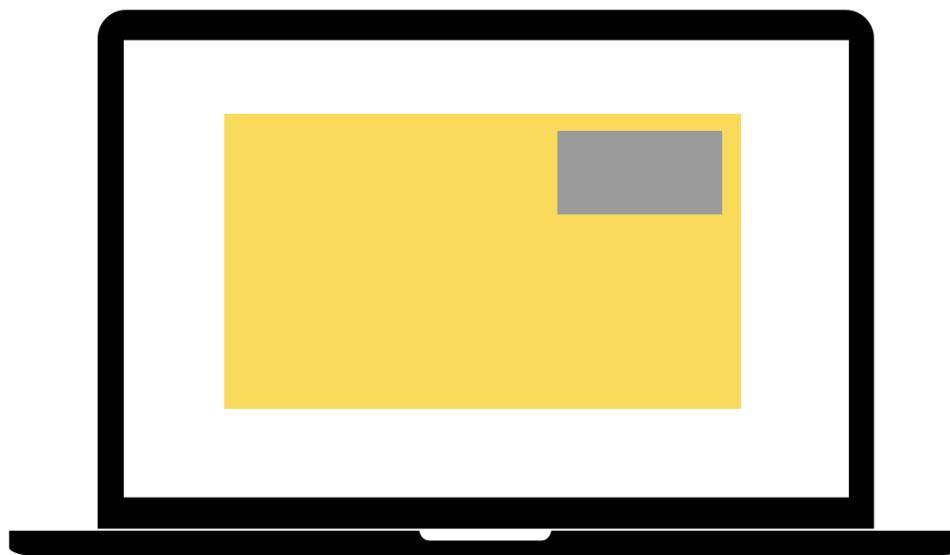
```
#absolute {  
    position: absolute;  
}
```

RELATIVE > ABSOLUTE



```
#relative {  
    position: relative;  
    width: 900px;  
    margin: 0 auto;  
}  
  
#absolute {  
    position: absolute;  
    bottom: 10px;  
    right: 10px;  
}
```

RELATIVE > ABSOLUTE



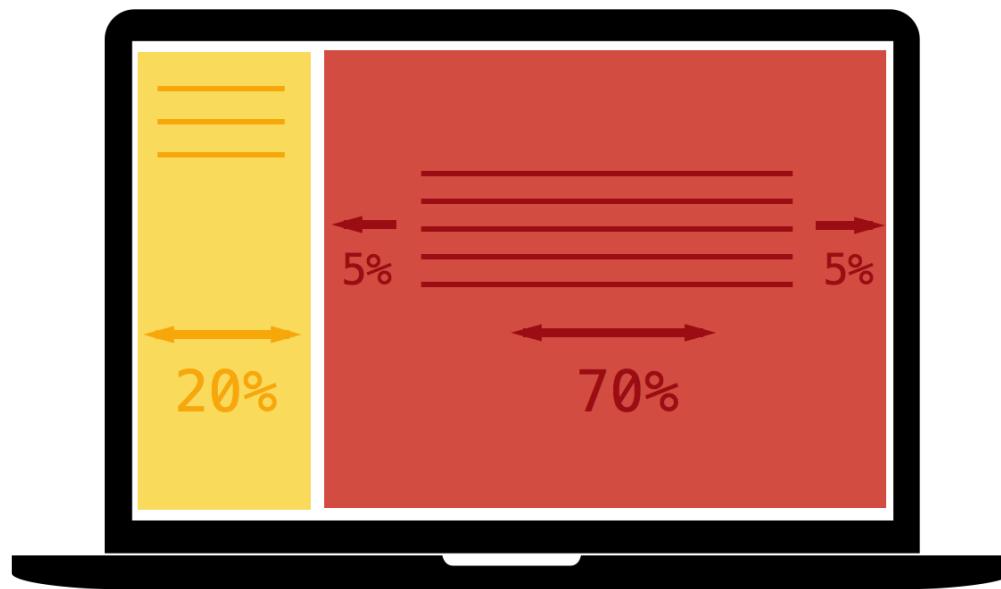
```
#relative {  
    position: relative;  
    width: 900px;  
    margin: 0 auto;  
}  
  
#absolute {  
    position: absolute;  
    top: 10px;  
    right: 10px;  
}
```

FIXED SIDEBAR



```
#left {  
    position: fixed;  
    width: 20%;  
    left: 0px;  
    top: 0px;  
    bottom: 0px;  
}  
  
#right {  
    position: relative;  
    width: 80%;  
    left: 20%;  
}
```

FIXED SIDEBAR



```
#right {  
    position: relative;  
    width: 70%;  
    left: 20%;  
    padding: 5%;  
}
```

[CHALLENGE]

Final challenge: your profile dashboard