HTML & CSS BASICS

FRONTEND MODULE

- **Day #1 (today)** 👉 Simple HTML / CSS (fonts, colors, box model)
- **Day #2** 👉 Building components (buttons, forms, tabs, etc…)
- **Day #3** 👉 Building layouts & grids (with CSS grids and Bootstrap)

TODAY'S OBJECTIVES

- Learn HTML / CSS basics
- Code your profile page
- Put it online with Github Pages

Add a fixed sidebar for most advanced

LECTURE BOILERPLATE

https://github.com/lewagon/html-demo

```
cd ~/code/$GITHUB_USERNAME
git clone git@github.com:lewagon/html-demo.git
cd html-demo
stt
```

FRONT-END LANGUAGES

The languages **your browser speaks**

HTML 5
content + structure

CSS 3
style

JS
dynamism + usability

CONTENT

This is what Google cares about. Think of SEO.

APPEARANCE

How does it look?

DYNAMIC BEHAVIOR

Animate stuff on screen. Client-side form validation.

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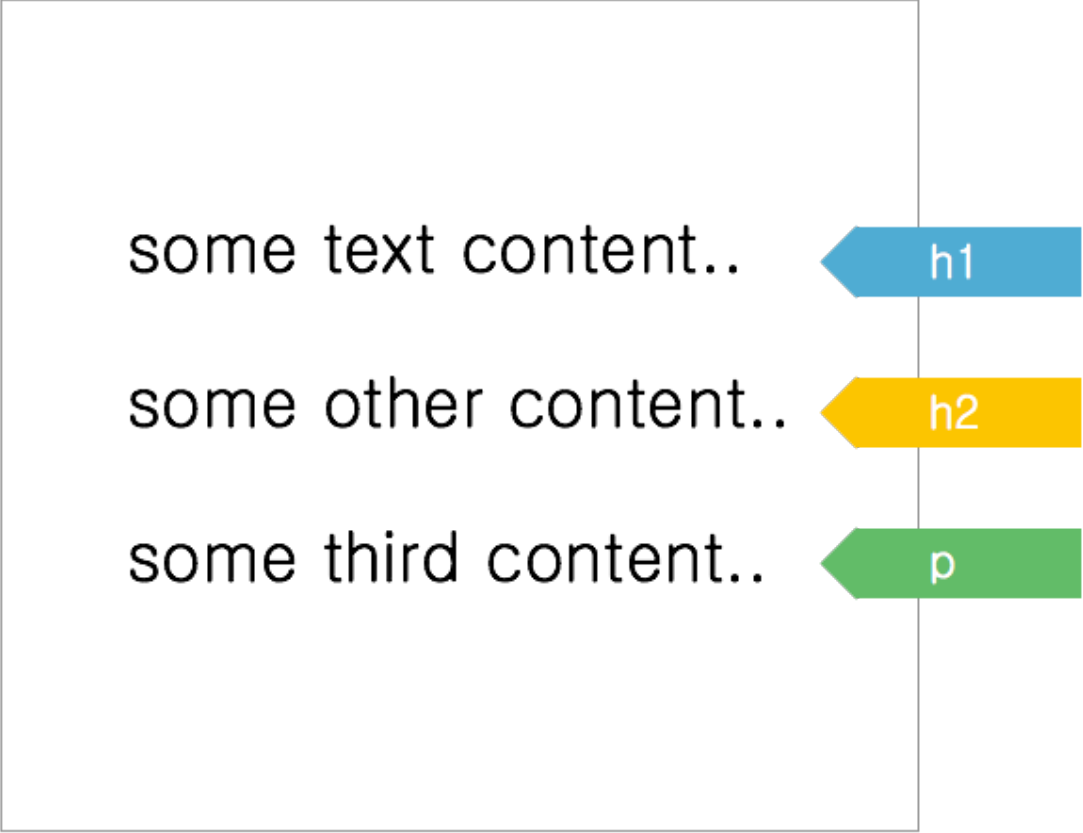
HTML

Your page has different contents

some text content..

some other content..

some third content..

HTML

HTML tags help you **identify** content

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 -->
```

HTML SKELETON

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




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

HTML SKELETON

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


  </head>
  <body>

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

HTML SKELETON - HEAD

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

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

HTML SKELETON - HEAD & GOOGLE

```html
<head>
  <!-- Google result text-->
  <title>Le Wagon - Apprendre à coder - Bootcamp en ruby on
  <!-- Google result description-->
  <meta name="description" content="Le Wagon est la meilleure
</head>
```

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

protip: max 55 characters for title & 160 characters for description.

HTML SKELETON - HEAD & FACEBOOK

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

HTML SKELETON - HEAD & TWITTER

```html
<head>
  <meta name="twitter:card" content="summary_large_image">
  <meta name="twitter:site" content="@Lewagonparis">
  <meta name="twitter:title" content="Le Wagon - The French
  <meta name="twitter:description" content="Le Wagon is the
  <meta name="twitter:creator" content="@Lewagonparis">
  <meta name="twitter:image:src" content="http://twitter-card
</head>
```
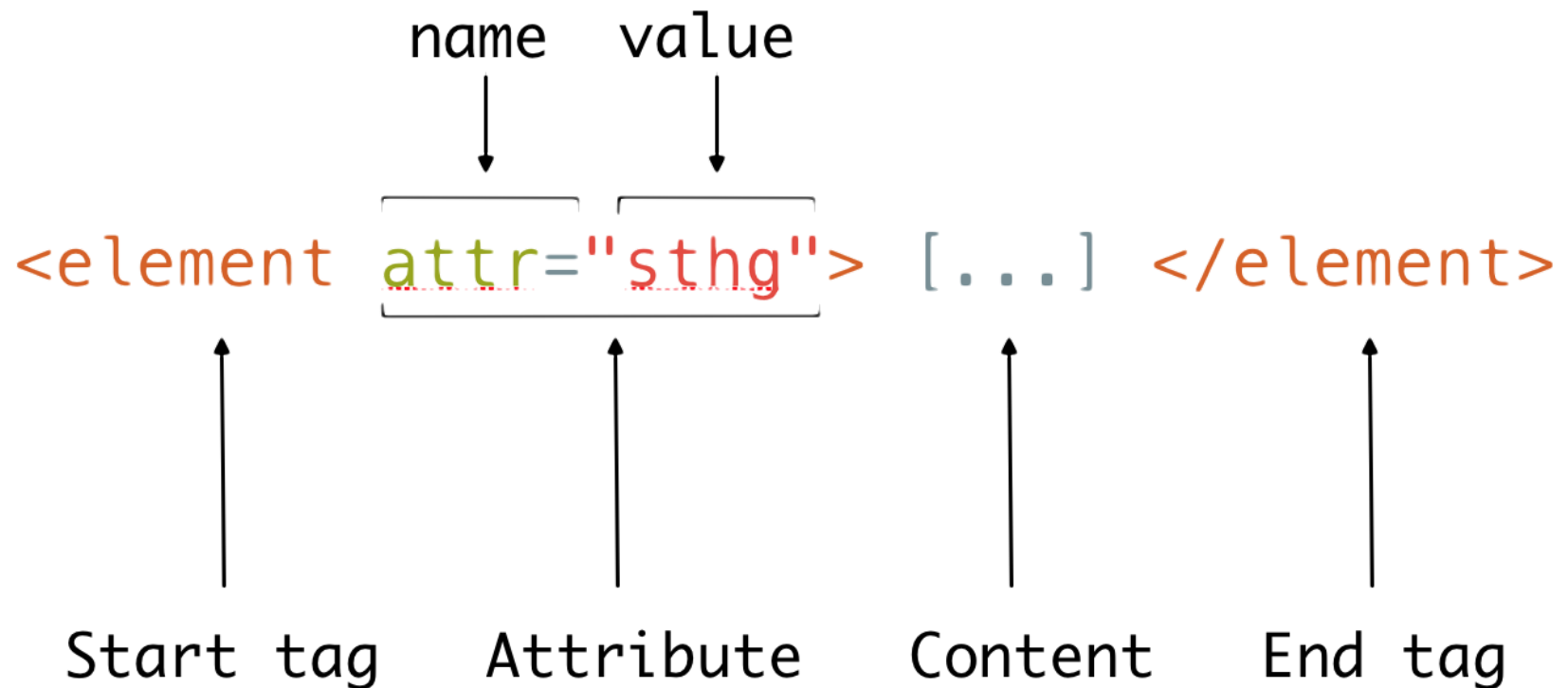
HTML SKELETON - BODY

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

BASIC SYNTAX

name   value

<element attr="sthg"> [...] </element>

Start tag   Attribute   Content   End tag

EXAMPLE

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

Result: Le Wagon

QUIZZ

- What is the element's name?
- What is the element's 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

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

LISTS

```html
<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

```html
<img src="logo.png" alt="Le Wagon logo">
```

TABLES

```html
<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

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

MUCH MORE

- codeguide.co
- MDN reference

LIVE-CODE

Let's add some HTML content in our profile page

CSS

WEB WITHOUT CSS ?

- Cut the `<head>` on lewagon.com with Chrome dev tool.
- This is how a website looks like without CSS 😬
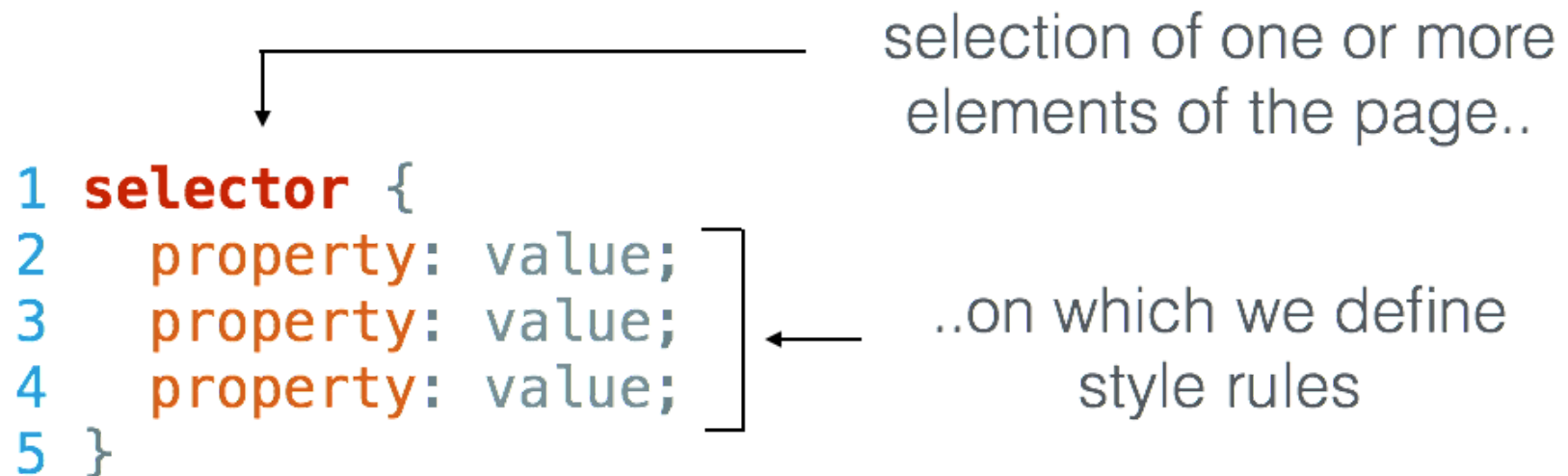
LINKING STYLESHEET TO HTML PAGE

index.html

```
1 <head>
2   <link rel="stylesheet" href="style.css">
3 </head>
4 <body>
5   <h1>Hello</h1>
6 </body>
```

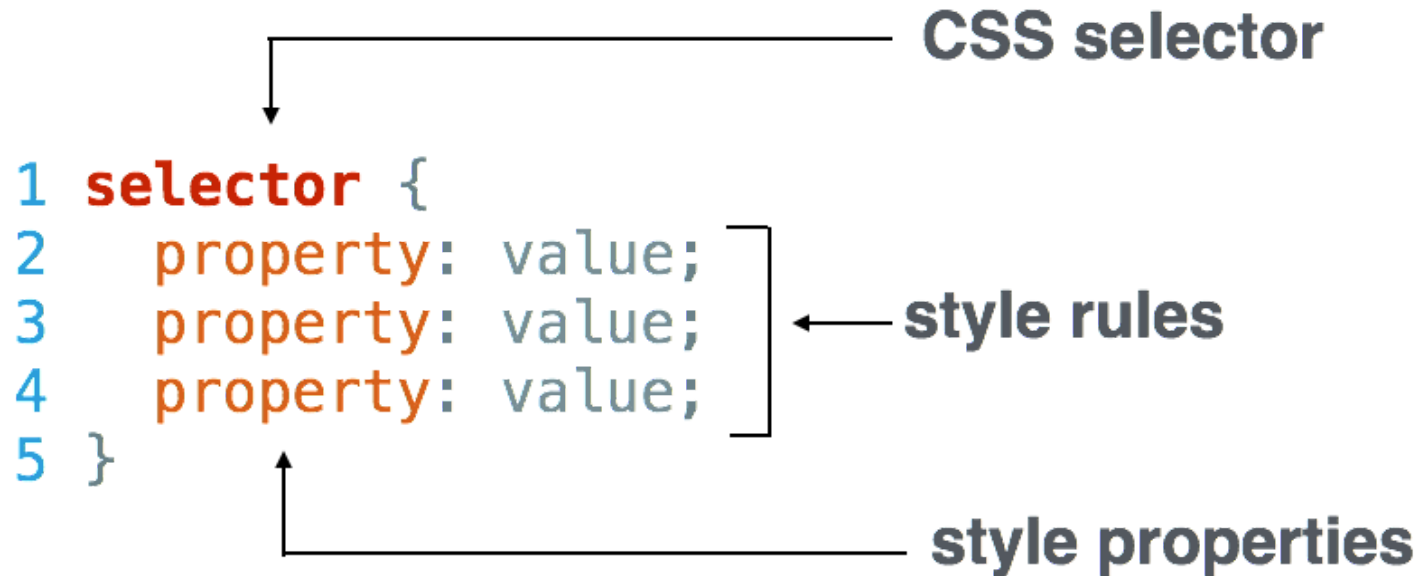style.css

```
1 h1 {
2   color: red;
3 }
```

CSS SYNTAX

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

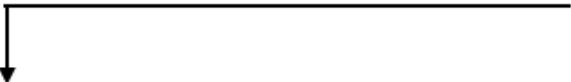selection of one or more elements of the page..

..on which we define style rules

CSS VOCABULARY

EXAMPLE

we select
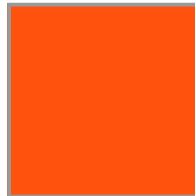**all <h2>** of the page

```
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

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

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

TEXT VS BACKGROUND

text color

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

background color

BACKGROUND IMAGE

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

background-image

FONT - FAMILY

```
1 body {
2   font-family: Times, serif;
3 }
```

Abc

```
1 body {
2   font-family: Arial, sans-serif;
3 }
```

Abc

```
1 body {
2   font-family: Courier, monospace;
3 }
```

Abc

FONTS - SIZE AND SPACING

```
1 body {
2   letter-spacing: 10px;
3 }
```


A b c
letter-spacing

```
1 body {
2   font-size: 30px;
3 }
```


font-size Abc

```
1 body {
2   line-height: 1.6;
3 }
```


line-height Abc

FONTS - DECORATION

```
1 p {
2   text-decoration: underline;
3 }
```

Abc

```
1 a {
2   text-decoration: none;
3 }
```

sign up
↓
sign up

FONTS - ALIGNMENT

```
1 p {
2  text-align: center;
3 }
```

This is a centered paragraph aligned with text-align

```
1 p {
2  text-align: justify;
3 }
```

This is a justified paragraph aligned with text-align

FONTS - WEIGHT

```
1 body {
2   font-weight: 100;
3   // from 100 to 900.
4 }
```

Light text

```
1 body {
2   font-weight: bold;
3 }
```

Bold text

FONTS - GOOGLE FONTS

Make your shopping on Google fonts.

- **Open-Sans** 👉 `<body>`
- **Raleway, Montserrat, Varela Round, etc...** 👉 `<h1>, <h2>, <h3>`

FONTS - FONTAWESOME

Fontawesome is a font of icons, really useful!

```html
<!-- cdn link to paste in your <head> -->
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/
```

LIVE-CODE

Let's design our fonts and colors using Google fonts.

DIV AND BOX MODEL

REAL LIFE...
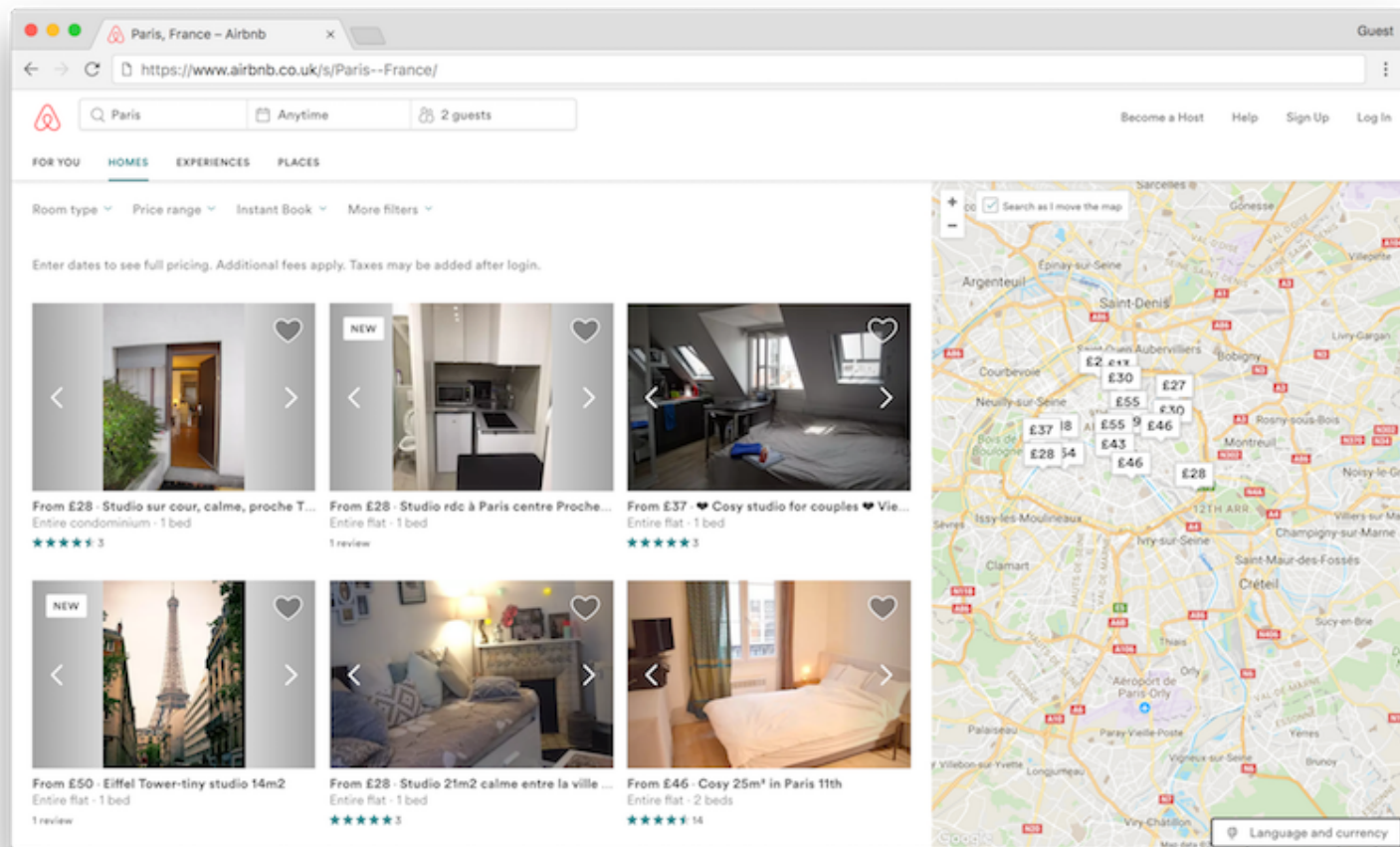
... IS MADE OF `<DIV>`
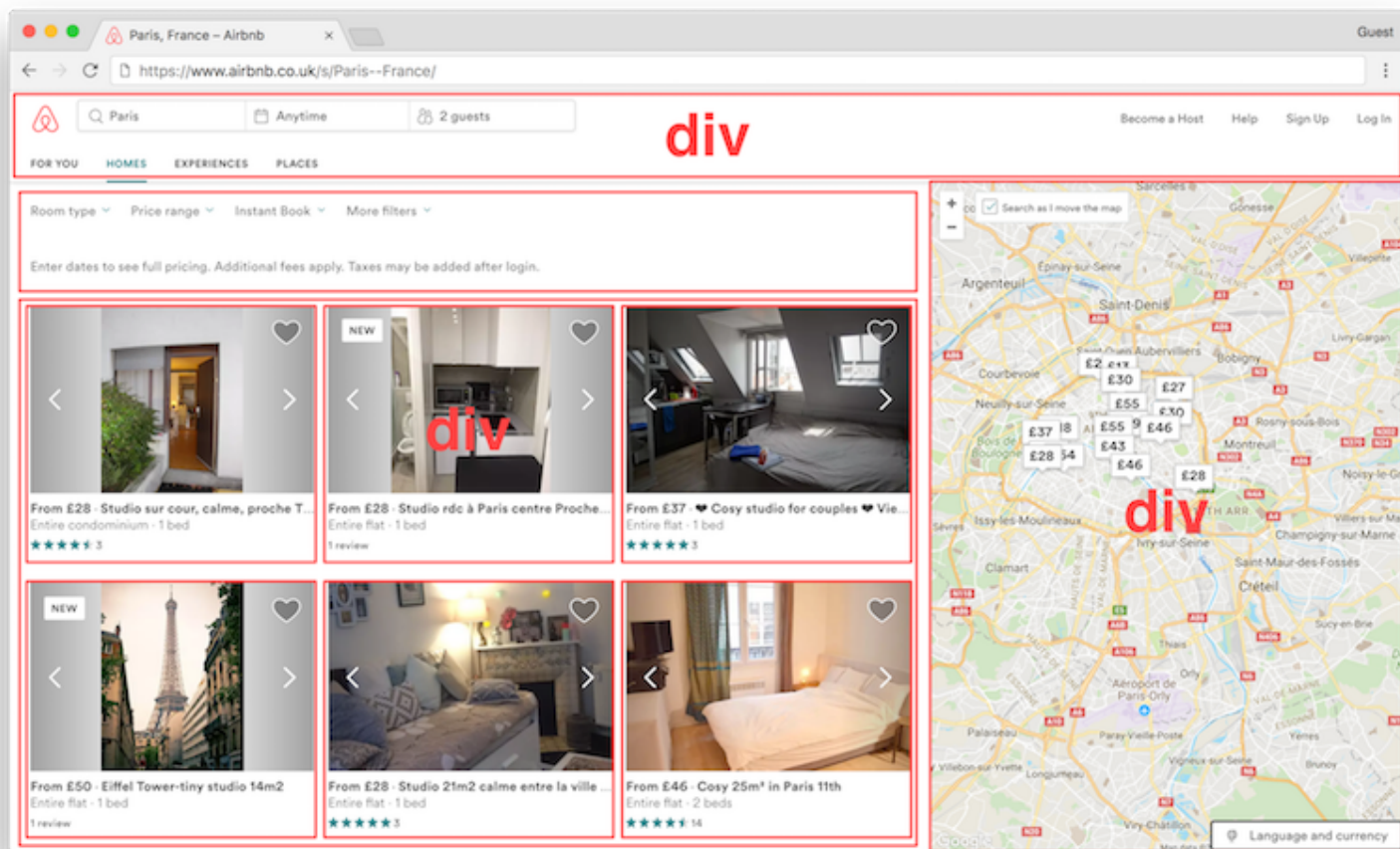
BOX MODEL - CONTENT
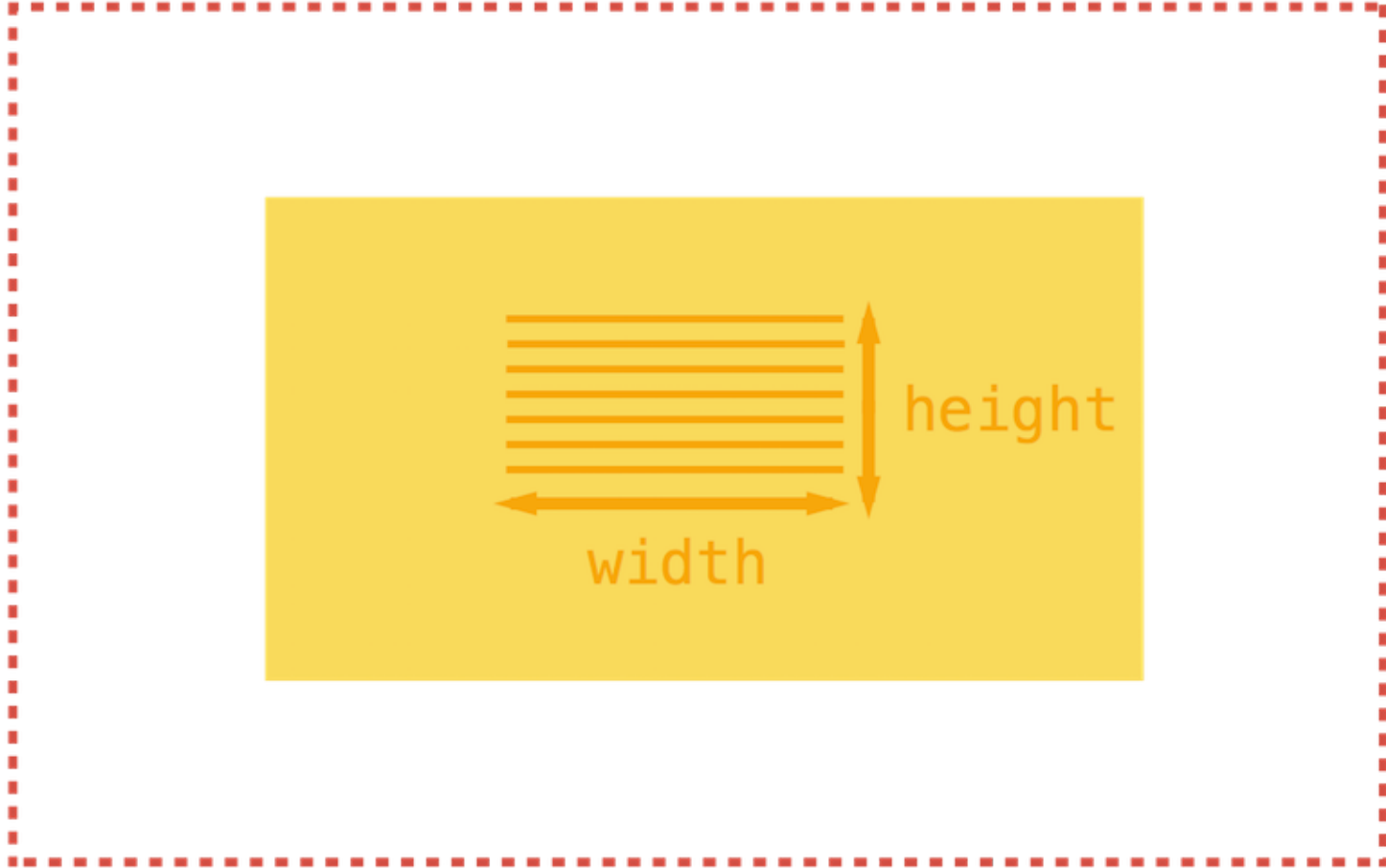
BOX MODEL - PADDING & MARGIN
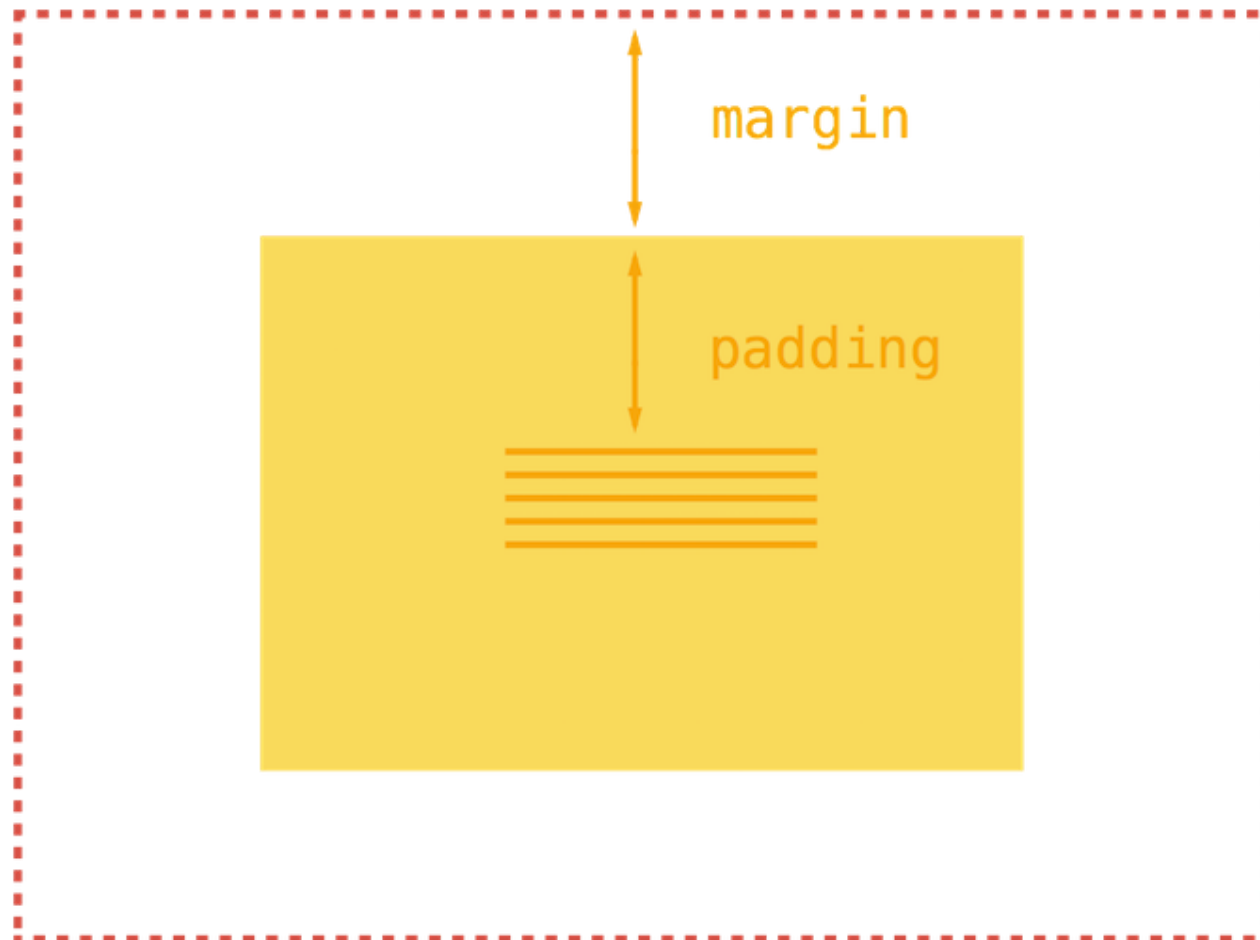
BOX MODEL - BORDER
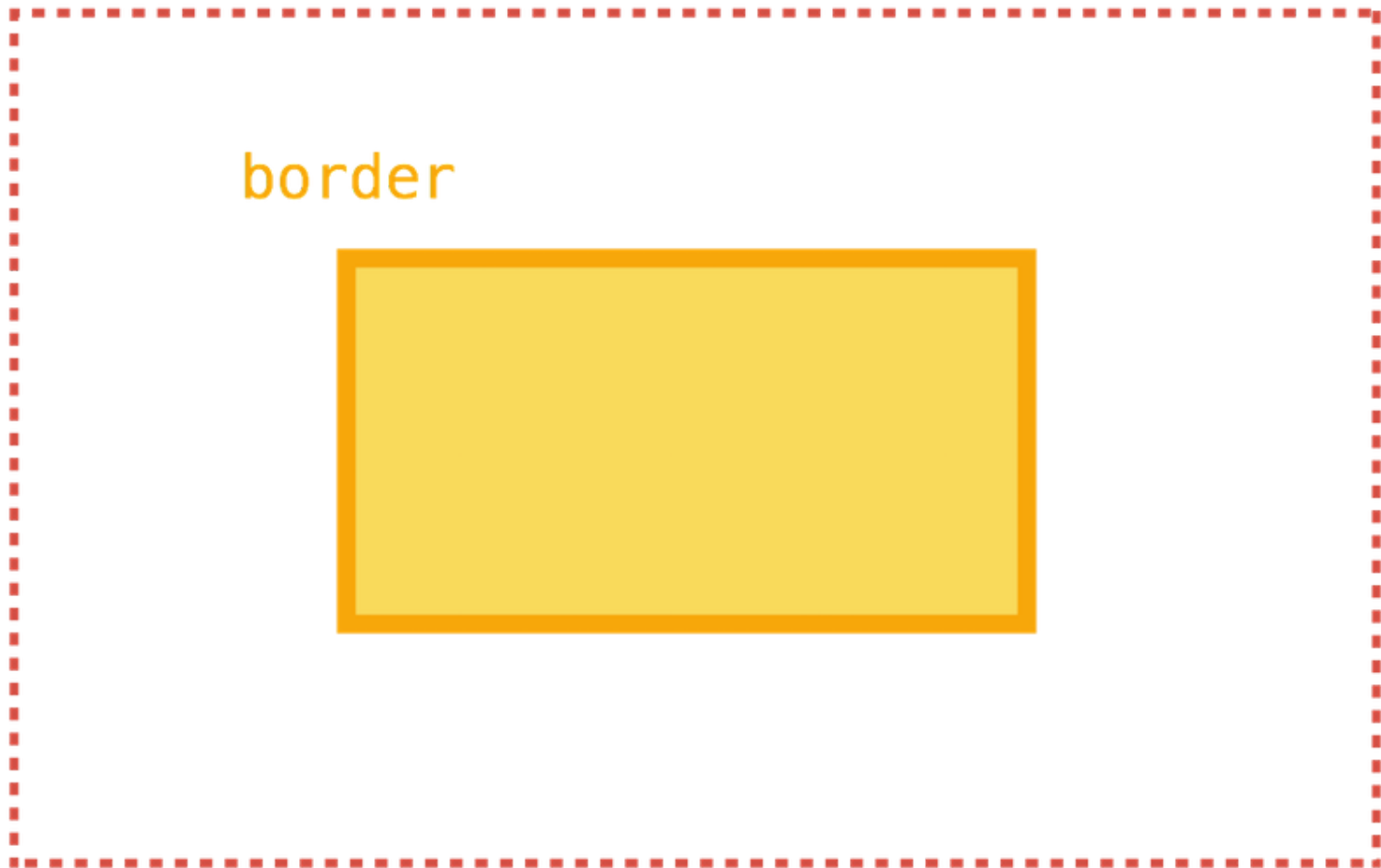
border

BORDERS

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

solid	**dashed**	**dotted**

BORDER RADIUS

BORDER RADIUS

BOX SHADOW

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

UNITS

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

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

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

DIV DESIGN TIPS

```css
background: white;                                    /* White backgrou
padding: 30px;                                        /* Internal space
border-radius: 4px;                                   /* Small radius
box-shadow: 1px 1px 3px rgba(0, 0, 0, 0.1); /* Subtle shadow
border: 1px solid rgba(0, 0, 0, 0.1);        /* OR subtle bord
```

RESULT:

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Eos voluptatibus, quis iure vel aliquam veritatis architecto fugiat necessitatibus? Quidem error explicabo nemo maiores voluptatem odio delectus ad, esse reprehenderit animi.

DIV CENTERING TECHNIQUE

```css
width: 300px;          /* Set the width */
margin: 0 auto;        /* Set automatic margins on right/left :
```

RESULT:

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Eos voluptatibus, quis iure vel aliquam veritatis architecto fugiat necessitatibus? Quidem error explicabo nemo maiores voluptatem odio delectus ad, esse reprehenderit animi.

LIVE-CODE

Let's **add some `div`** in our HTML and play with the box model with Chrome Dev tool.

ID AND CLASS

HOW DO YOU STYLE ONLY THE LOGO?

NAME YOUR TAG WITH `ID`

HOW DO YOU STYLE YOUR STAFF PICTURES?

```
HTML    1 <img src="logo.png" id="logo">
        2
        3 <ul>
        4    <li><img src="paul.png"></li>
        5    <li><img src="ringo.png"></li>
        6    <li><img src="john.png"></li>
        7    <li><img src="george.png"></li>
        8 </ul>
```

NAME YOUR TAGS WITH CLASS

HTML

```
1 <img src="logo.png" id="logo">
2
3 <ul>
4     <li><img src="paul.png" class="img-circle"></li>
5     <li><img src="ringo.png" class="img-circle"></li>
6     <li><img src="john.png" class="img-circle"></li>
7     <li><img src="george.png" class="img-circle"></li>
8 </ul>
```

CSS

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

✔

ID OR CLASS?

unique

```
    1  <img src="logo.png" id="logo">
    2
    3  <ul>
HTML 4    <li><img src="paul.png" class="img-circle"></li>
    5    <li><img src="ringo.png" class="img-circle"></li>
    6    <li><img src="john.png" class="img-circle"></li>
    7    <li><img src="george.png" class="img-circle"></li>
    8  </ul>
```

re-usable

COMBINE (1)

COMBINE (2)

HTML 1 `<img src="paul.png" class="img-circle shadowed">`

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

COMBINE (3)

HTML 1 `<img src="paul.png" class="img-circle shadowed" id="leader">`

CSS

```
1 .img-circle {
2   border-radius: 10px;
3 }
4
5 .shadowed {
6   box-shadow: 5px 5px 3px black;
7 }
8
9 #leader {
10   border: 5px solid red;
11 }
```

CLASS NAMING - QUIZZ

Which one is **more explicit** (tells what it does)?

- `.btn-red` or `.btn-signup`?
- `.background-blue` or `.background-home`?
- `.img-user` or `.img-circle`?

Change your mindset => **think graphical**

CLASS NAMING - CONVENTION

.component-shape

```
/* Examples*/
.text-center
.text-justify
.btn-red
.btn-green
.btn-big
.list-inline
.form-horizontal
.img-rounded
.img-circle
```

SELECTORS SUMMARY

ELEMENT SELECTOR

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

combined with

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

makes the h1 elements red and bold.

CLASS SELECTOR

```html
<!-- 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

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

will make only the second and third paragraphs justified.

ID SELECTOR

```html
<!-- index.html -->
<body>
  <div id="banner">
    <h1>Le Wagon</h1>
    <p>We bring tech skills to creative people</p>
  </div>
</body>
```

combined with

```css
/* style.css */
#banner {
  background-image: url("example.jpg");
  background-size: cover;
}
```

DESCENDANT SELECTORS

```html
<!-- index.html -->
<body>
  <div id="banner">
    <h1>Le Wagon</h1>
    <p>We bring tech skills to creative people</p>
  </div>
</body>
```

combined with

```css
/* style.css */
#banner h1 {
  color: white;
}
```

h1 **children** of the element id="banner" will be white.

DIRECT CHILDREN

```html
<!-- index.html -->
<body>
  <ul id="navigation">
    <li><a href="#">Home</a></li>
    <li><a href="#">Team</a></li>
    <li><a href="#">Contact</a></li>
  </ul>
</body>
```

combined with

```css
/* style.css */
#navigation > li > a {
  color: blue;
}
```

GROUPING

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

is a shortcut syntax for

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

PSEUDO CLASSES

```css
/* style.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

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

combined with

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

QUIZZ #2

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

combined with

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

SPECIFICITY OF SELECTORS

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

Check out the specificity calculator

LIVE-CODE

Let's **finish our live-code** and get this final result

Tonight, we will put our profile **online** using Github Pages.

LET'S BUILD YOUR PROFILE!