

# HYP TECHNOLOGY / FRONT-END

# BOOTSTRAP<sup>2</sup>

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Ways to get help:

- o. Google or StackOverflow
- 1. After class – most immediate way
- 2. Via e-mail: [mirko.gelsomini@polimi.it](mailto:mirko.gelsomini@polimi.it)
- 3. private meeting at I3Lab, Via Golgi 39, building 21



# Quiz #1

## What is CSS?

1. CSS stands for Central Security Service commonly used to block virus in web pages
2. CSS is the Cross-Site Scripting used to block ajax calls (in post and get)
3. CSS stands for Cascading Style Sheet to apply the style to a webpage

# Quiz #2

## What is the DOM?

1. DOM stands for Document Object Model, a spec. for application program interfaces for accessing the content of HTML and XML documents
2. DOM stands for Documentational and Organizational Model, to easily comment the HTML code in the best way
3. DOM is the Definitive Object Model, a W3C specification for application program interfaces for accessing the content of css documents

# Quiz #3

The code `<link rel="stylesheet" type="text/css" href="theme.css">`

1. is a HTML definition to link the webpage to a css file
2. is a CSS definition to link an html to a css file
3. is a Javascript definition to link html to css file

# Quiz #4

The code:

**@media (min-device-width : 320px) and (max-device-width : 480px){}**

1. is a media query in css: rules inside will be applied for devices with width>320px and width<480px
2. is a media query in css: is a rule to adapt all the devices of width 320px to 480px
3. is a media query in javascript: rules inside will be applied for devices with width>320px and width<480px

# Quiz #5

How do you display a border like this:

The top border = 10 pixels

The bottom border = 5 pixels

The left border = 20 pixels

The right border = 1pixel?

1. `border-width:5px 20px 10px 1px;`
2. `border-width:10px 20px 5px 1px;`
3. `border-width:10px 1px 5px 20px;`
4. `border-width:10px 5px 20px 1px;`

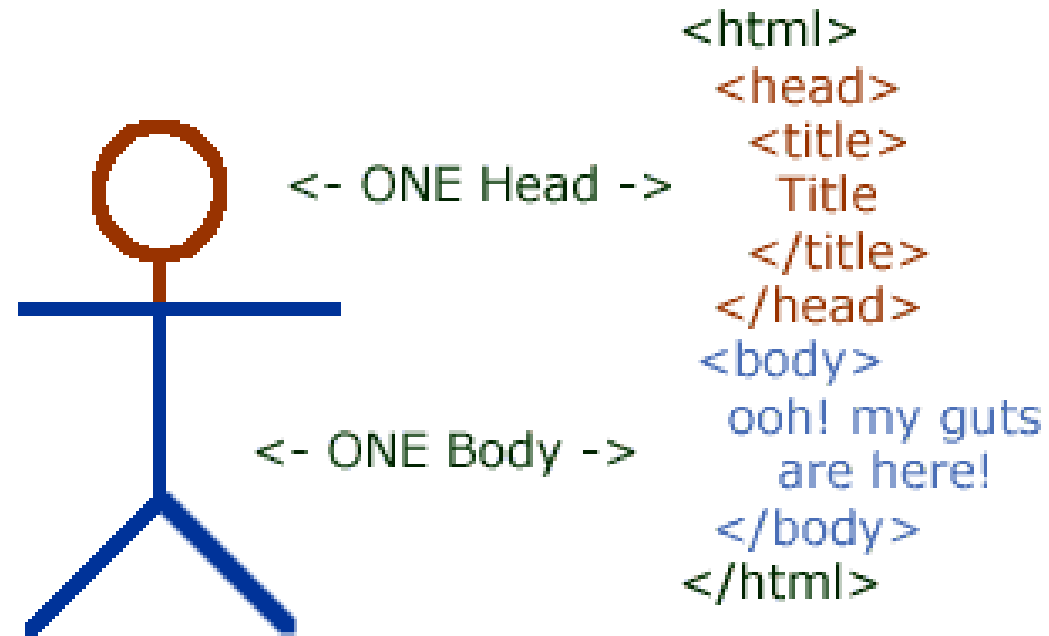
# Quiz #6

**What is the difference between raster and vector graphic?**

1. raster graphics are composed of mathematical paths, while vector graphics are composed of pixels
2. raster graphics are composed of pixels, while vector graphics are composed of mathematical paths
3. Raster is a rectangular pattern of parallel scanning lines followed by the electron beam on a television screen or computer monitor, while vector is a quantity having direction as well as magnitude, especially as determining the position of one point in space relative to another

# HTML - HyperText Markup Language

- <!DOCTYPE html>
- <html>
  - <head>
  - </head>
  - <body>
  - </body>
- </html>



And the head always comes first !



# Connecting HTML, CSS and JS



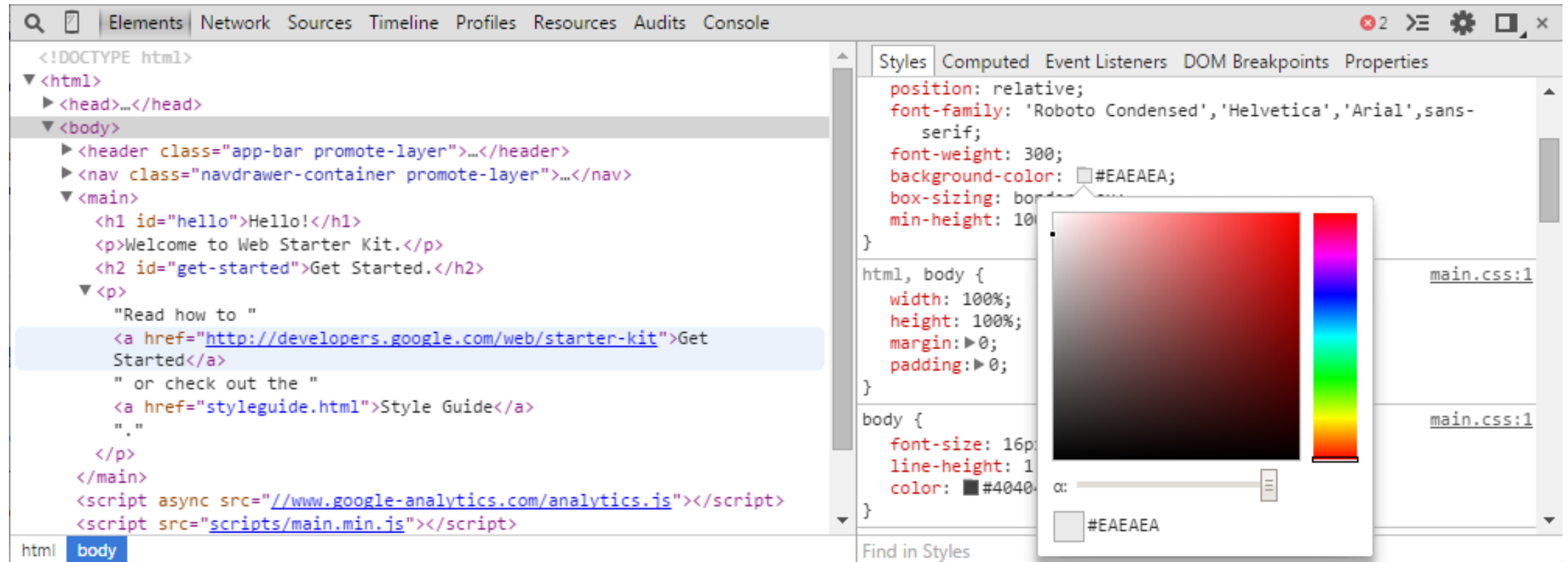
```
<head>  
  <link rel="stylesheet" type="text/css" href="assets/css/style.css">  
</head>
```



```
<script src="assets/js/script.js"></script>
```

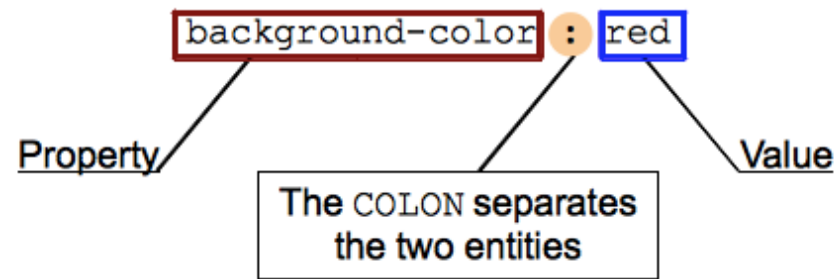


# Dev Tools (F12)

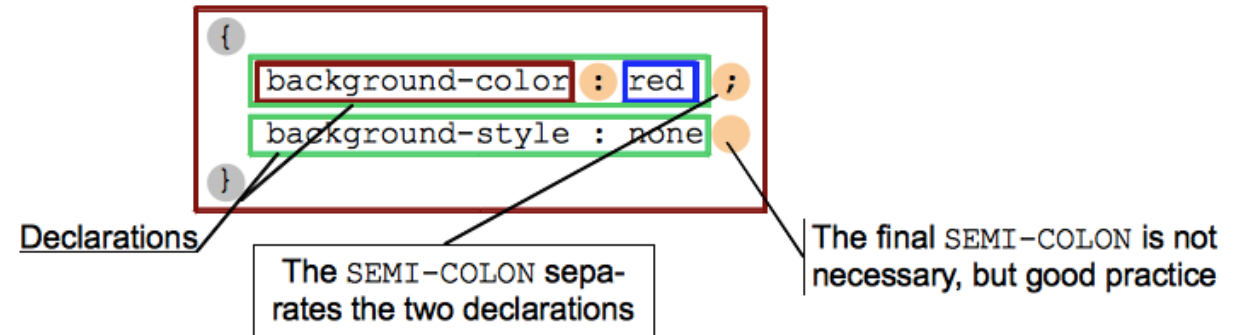


# CSS Syntax

A CSS declaration :



A CSS declarations block:



Comments in CSS begin with `/*` and end with `*/`.

## Important:

If a property is unknown or if a value is not valid for a given property, the declaration is deemed *invalid* and is wholly ignored by the browser's CSS engine.

In CSS (and other web standards), US spelling has been agreed on as the standard to stick to where uncertainty arises. For example, color (as seen in the above code) should always be spelt color. colour won't work.

# HTML tags and CSS Selectors

<p>Hello Mickey!!</p>

```
p {  
  color:red;  
}
```

<p class="blue">Hello Pluto!!</p>

```
.blue{  
  color:blue;  
}
```

<p id="pluto">Hello Pippo!!</p>

```
#pluto{  
  color:green;  
}
```

# Bootstrap

- **Bootstrap** is an HTML5 & CSS3 framework designed to help you kickstart the development of web-apps and sites.
- E.g. <https://wrapbootstrap.com/> or <https://startbootstrap.com/> are marketplaces for premium **Bootstrap themes** and **templates**.
- Impress your clients and visitors while using a single, rock-solid foundation.
- Some other links:

<https://shapebootstrap.net/free-templates>, <https://bootswatch.com/>, <https://bootstrapmade.com/>,  
<https://almsaeedstudio.com/blog/10-Free-Responsive-Bootstrap-Templates-For-2016>

# Link to Bootstrap

```
<!-- Latest compiled and minified CSS -->  
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/boo  
tstrap.min.css">
```

```
<!-- jQuery library -->  
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.2.1/jquery.min.js"></scr  
ipt>
```

```
<!-- Latest compiled JavaScript -->  
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></  
script>
```

# Precompiled Bootstrap

Once downloaded, unzip the compressed folder to see the structure of (the compiled) Bootstrap. You'll see something like this:

```
bootstrap/
├── css/
│   ├── bootstrap.css
│   ├── bootstrap.css.map
│   ├── bootstrap.min.css
│   ├── bootstrap.min.css.map
│   ├── bootstrap-theme.css
│   ├── bootstrap-theme.css.map
│   ├── bootstrap-theme.min.css
│   └── bootstrap-theme.min.css.map
├── js/
│   ├── bootstrap.js
│   └── bootstrap.min.js
└── fonts/
    ├── glyphicons-halflings-regular.eot
    ├── glyphicons-halflings-regular.svg
    ├── glyphicons-halflings-regular.ttf
    ├── glyphicons-halflings-regular.woff
    └── glyphicons-halflings-regular.woff2
```

This is the most basic form of Bootstrap: precompiled files for quick drop-in usage in nearly any web project. We provide compiled CSS and JS ( `bootstrap.*` ), as well as compiled and minified CSS and JS ( `bootstrap.min.*` ). CSS [source maps](#) ( `bootstrap.*.map` ) are available for use with certain browsers' developer tools. Fonts from Glyphicons are included, as is the optional Bootstrap theme.

# Bootstrap Grid System

span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1
span 4				span 4				span 4			
span 4				span 8							
span 6						span 6					
span 12											



# Basic Structure of a Bootstrap Grid

```
<div class="container">  
  <div class="row">  
    <div class="col-x-y"></div>  
  </div>  
  <div class="row">  
    <div class="col-x-y"></div>  
    <div class="col-x-y"></div>  
    <div class="col-x-y"></div>  
  </div>  
</div>
```

**x** can be any value between xs, sm, md, lg

**y** can be any value from 1 to 12 included

# Example: Equal and Unequal Columns

.col-sm-4	.col-sm-4	.col-sm-4
-----------	-----------	-----------

```
<div class="row">  
  <div class="col-sm-4">.col-sm-4</div>  
  <div class="col-sm-4">.col-sm-4</div>  
  <div class="col-sm-4">.col-sm-4</div>  
</div>
```

.col-sm-4	.col-sm-8
-----------	-----------

```
<div class="row">  
  <div class="col-sm-4">.col-sm-4</div>  
  <div class="col-sm-8">.col-sm-8</div>  
</div>
```

# Basic template

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Page Title</title>

  <!-- Bootstrap -->
  <link href="assets/css/bootstrap.min.css" rel="stylesheet">

</head>

<body>
  <h1>Hello, world!</h1>

  <!-- jQuery (necessary for Bootstrap's JavaScript plugins) -->
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.4/jquery.min.js"></script>
  <!-- Include all compiled plugins (below), or include individual files as needed -->
  <script src="assets/js/bootstrap.min.js"></script>
</body>
```

# Grid options

	<b>Extra small</b> <576px	<b>Small</b> ≥576px	<b>Medium</b> ≥768px	<b>Large</b> ≥992px	<b>Extra large</b> ≥1200px
<b>Max container width</b>	None (auto)	540px	720px	960px	1140px
<b>Class prefix</b>	<code>.col-</code>	<code>.col-sm-</code>	<code>.col-md-</code>	<code>.col-lg-</code>	<code>.col-xl-</code>
<b># of columns</b>	12				
<b>Gutter width</b>	30px (15px on each side of a column)				
<b>Nestable</b>	Yes				
<b>Column ordering</b>	Yes				

# DEMO

BUILD a WEBSITE in BOOTSTRAP from SCRATCH

# NAVBAR

<https://jsfiddle.net/MirkoGelsomini/u601byoq/>

# TEMPLATE

<https://jsfiddle.net/MirkoGelsomini/51z4qwxh/8/>

# DEMO

BUILD a WEBSITE in BOOTSTRAP from a TEMPLATE



# Being stuck?

0. Google (Stack Overflow suggested)
1. Meet Mirko just After class – most immediate way
2. Via e-mail: [mirko.gelsomini@polimi.it](mailto:mirko.gelsomini@polimi.it)
3. Meet Mirko at I3Lab, Via Golgi 39, building 21

