Materialize CSS



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Materialize CSS

Materialize CSS - What is it?

It is a CSS Framework

Guided by Material Design from Google

Offers a good CSS and JS basis for our webs

r webs

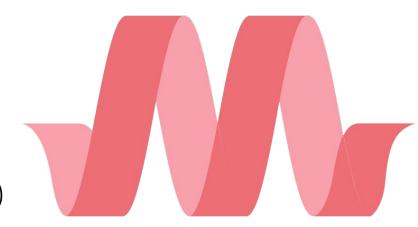
Colors, tables, icons, floating buttons, forms...

Materialize CSS - Features (I)

 Pretty good documentation (<u>Materialize Documentation</u>)

Doesn't depend on JQuery

Relatively light (140kB CSS + 180kB JS)



Materialize CSS - Features (II)

- Supported by a great amount of browsers
 - Chrome 35+
 - Firefox 31+
 - Safari 9+
 - Opera
 - Edge
 - ∘ IE 11+
- Follows good practices



Materialize CSS - Features (III)

Uses ECMAScript 5 terminology

 Partially supported by Internet Explorer 10 and 11



Materialize CSS - Origin

 It was developed in 2014 By a 4-student team from the Carnegie Mellon University (Pennsylvania)



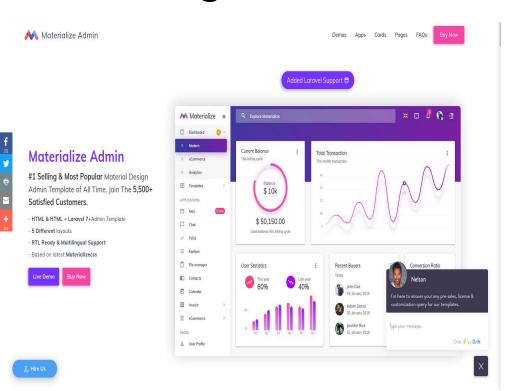
Framework

Framework - What is it?

• It is a standard set of concepts, practices and criteria to focus on a specific type of problem

Materialize is no more than a set of predetermined interfaces

Framework - Why not your own code? (I). Advantages

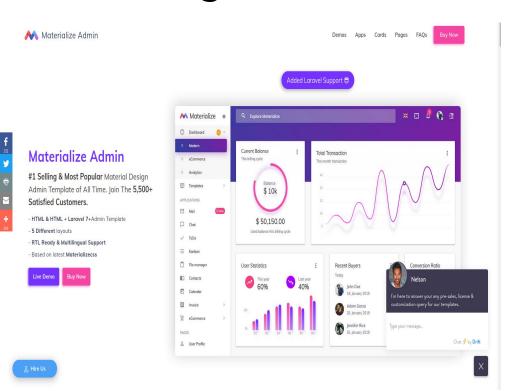


• It allows us to save time

 It gives us an attractive aesthetic for our projects

Consistency

Framework - Why not your own code? (II). Advantages



Avoid to repeat code

Good practices

It gives quality to our project

Framework - Why not your own code? (III). Disadvantages

Unused code

You must learn to use the framework. Not easy



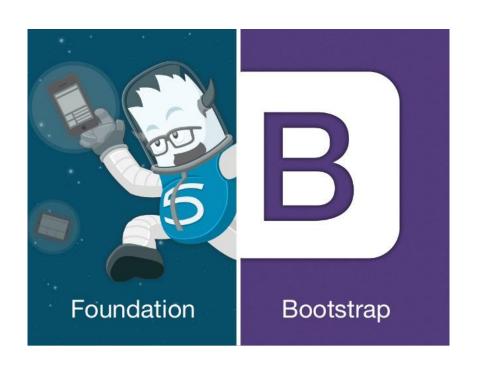
Framework - Why not your own code? (IV). Disadvantages

 Content and presentation get mixed

 You don't learn to defend yourself



Framework - Why Materialize?



It doesn't depend on JQuery

 Based in good practices since the beginning

More familiar and easier to use

Visual interface design basics

Materialize vs Bulma

Materialize vs Bulma (I). Similarities

Flexbox based

• 100% Responsive

Well documented



Huge amount of components

Materialize vs Bulma (II). Differences

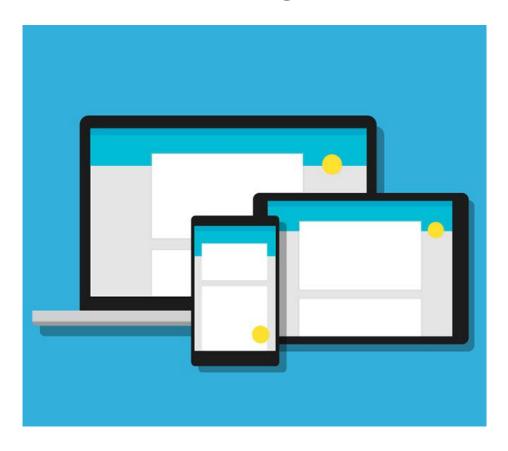
 Bulma is built with SASS. No need of this in Materialize

Bulma uses "Mobile-first design"



BULMA.io

 Bulma doesn't include JS. It needs the BulmaJS extension



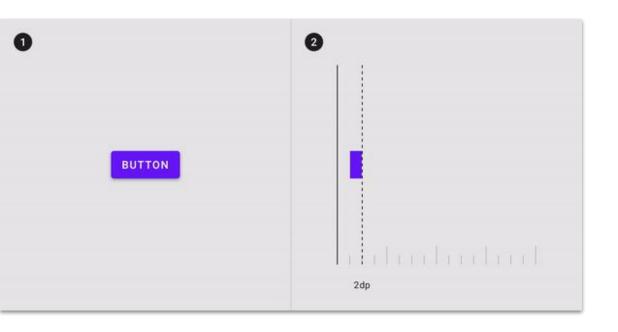
- Created and designed by Google.
- Combines the design principles with innovation and technology.
- System of design that allows for a unified user experience.
- It's thought of in the physical world.

Material Design - Examples (I)



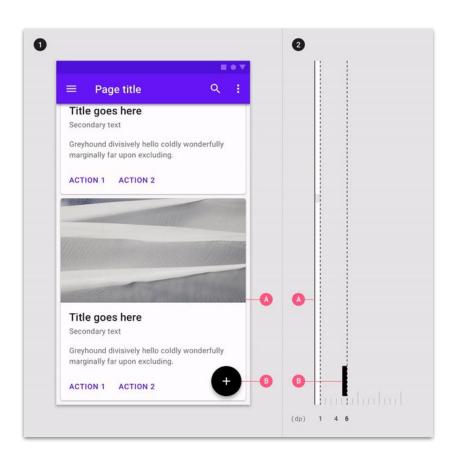
 The interaction with the objects seen on the screen gives a sensation of light, surface and movement.

Material Design - Examples (II)



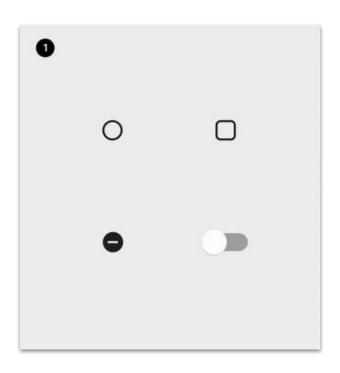
 It is the button that lets us know in a physically realistic way that it is being pressed.

Material Design - Examples (III)



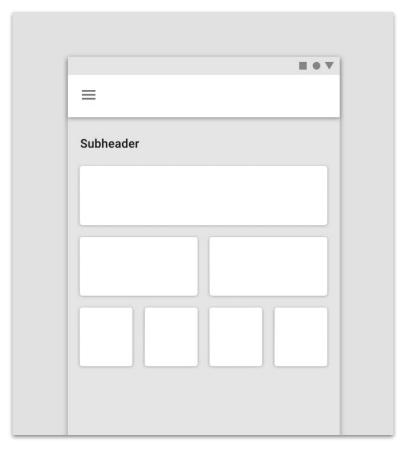
Sometimes it is the user who directs the movement

Material Design - Examples (IV)



 Aesthetic coherence in the animations.

"Animations are not something that interrupts the user experience, but instead enriches and gives meaning to the experience itself."



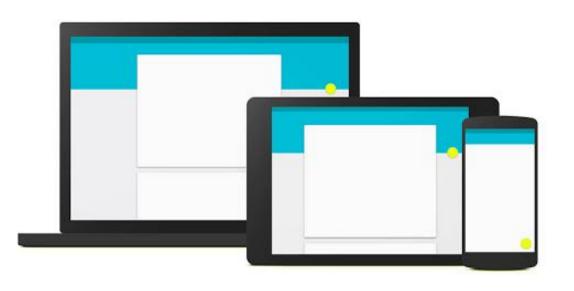
Hierarchy and visual reading

- Color
- Spacing
- Typographical hierarchies
- Grid



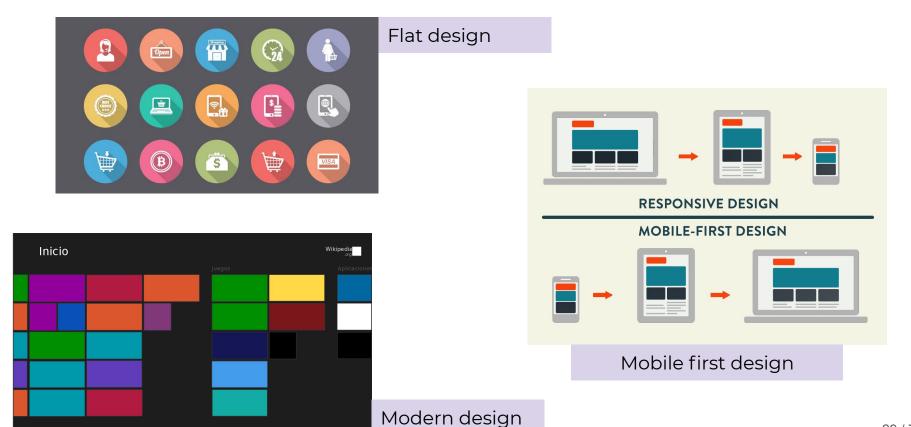
<u>Material.io</u>

Material Design - Strengths



- Adaptability
- Simplicity and minimalism

Material Design - Other web design examples



GRID

- Is a grid or structure on which elements of the page are laid out or positioned.
- Helps the webpage design to be carried out in an orderly and relatively simple way.
- It has rows in which there are 12 columns.



There are countless ways to combine the column layout!

```
<div class="row">
  <div class="col s1">1</div>
  <div class="col s1">2</div>
  <div class="col s1">3</div>
  <div class="col s1">4</div>
  <div class="col s1">5</div>
  <div class="col s1">6</div>
  <div class="col s1">7</div>
  <div class="col s1">8</div>
  <div class="col s1">9</div>
  <div class="col s1">10</div>
  <div class="col s1">11</div>
 <div class="col s1">12</div>
</div>
```

This div is 12-columns wide on all screen sizes

6-columns (one-half)

6-columns (one-half)

```
<div class="row">
  <div class="col s12">This div is 12-columns wide on all screen sizes</div>
  <div class="col s6">6-columns (one-half)</div>
  <div class="col s6">6-columns (one-half)</div>
  </div>
```

 If the sum of the columns of two containers is greater than 12, the second container will be placed under the first one.

```
#flex-container {
   display: flex;
   justify-content: space-around;
   align-items: center;
          <div class="row justify-content-center">
            <div class="col-4">
              One of two columns
            </div>
  justify-content-start
                  justify-content-center
                                  justify-content-end
        justify-content-around
                                       iustify-content-around
  justify-content-between
                                            justify-content-between
```

- Materialize doesn't use "justify-content"
- Materialize uses Offset,
 Push and Pull.

Grid - Offset

This div is 12-columns wide on all screen sizes

6-columns (offset-by-6)

```
<div class="row">
    <div class="col s12"><span class="flow-text">This div is 12-columns wide on all sc
    <div class="col s6 offset-s6"><span class="flow-text">6-columns (offset-by-6)</span </div>
```

Grid - Push & Pull

```
5-columns wide pulled to the left by 7- This div is 7-columns wide on pushed to the right by 5-columns.
```

```
<div class="row">
    <div class="col s7 push-s5"><span class="flow-text">This div
    <div class="col s5 pull-s7"><span class="flow-text">5-columns
</div>
```

Grid - But... Aren't Offset and Push the same?

No. Since Offset uses margin-left, and push uses left:

- Offset will force neighboring columns to move.
- Push (and Pull) will overlap other columns.

Grid - Responsive



 With responsive design we are able to adapt our site to all devices.

Grid - Responsive

Screen Siz	es			
	Mobile Devices <= 600px	Tablet Devices > 600px	Desktop Devices > 992px	Large Desktop Devices > 1200px
Class Prefix	. s	. m	.1	.xl
Container Width	90%	85%	70%	70%
Number of Columns	12	12	12	12

- We said that 's' is class prefix corresponding to the resolution of mobile devices.
- So... Why has this distribution been applied to higher resolutions?
- This is because the rules propagates upwards.

Grid - Responsive

I am always full-width (col s12)

I am full-width on mobile (col s12 m6)

```
<div class="row">
  <div class="grid-example col s12"><span class="flow-text">I a
  <div class="grid-example col s12 m6"><span class="flow-text">
  </div>
```

- By just saying s12, we are essentially saying "col s12 m12 112".
- But by explicitly defining the size we can make our website more responsive

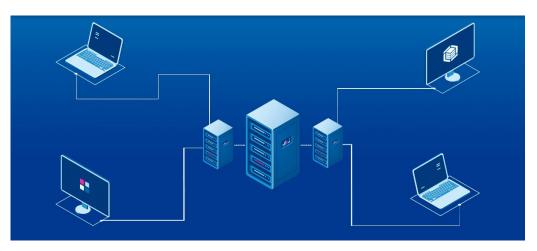
First Steps

First Steps

The first thing we must do is to include Materialize in our project:

- Materialize comes in two different forms
 - Standard Version
 - SASS

- Two ways to include it:
 - Downloading CSS and JS files
 - Via CDN



Examples

GitHub Repo

CSS

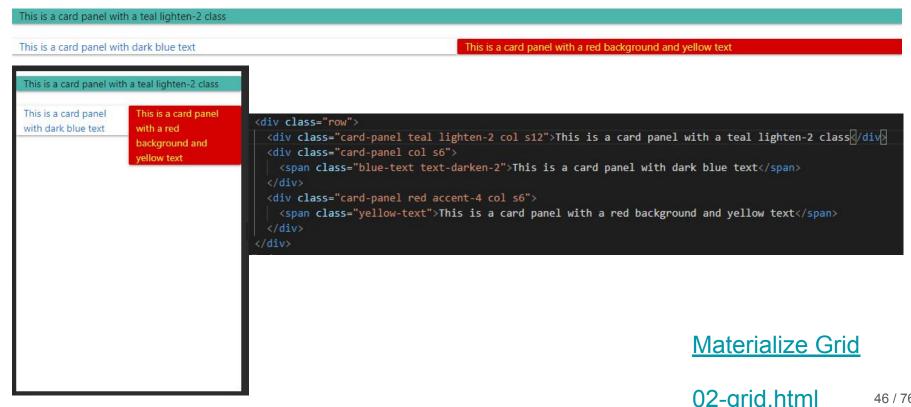
Examples - Colors

This is a card panel with a red background and yellow text

This is a card panel with dark blue text

Materialize Colors

Examples - Grid (I)



Examples - Grid (II)

This is a card panel with a teal lighten-2 class

This is a card panel with a red background and yellow text

This is a card panel with dark blue text

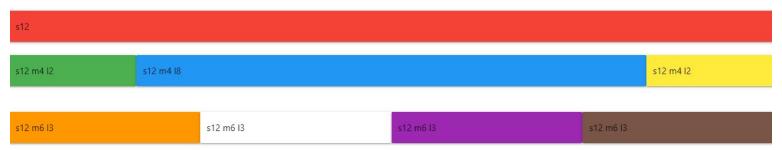
```
This is a card panel with a teal lighten-2 class

This is a card panel with a red background and yellow text

This is a card panel with dark blue text
```

Materialize Grid

Examples - Grid (III)



Materialize Grid

Examples - Alignment

```
This should be left aligned

This should be right aligned

This should be center aligned
```

Materialize Helpers

<u>05-alignment.html</u>

Examples - Images

Materialize Media

Examples - Shadows

```
<div class="card-panel yellow col s12 m2 z-depth-1"></div>
<div class="card-panel yellow col s12 m2 z-depth-2"></div>
<div class="card-panel yellow col s12 m2 z-depth-3"></div>
<div class="card-panel yellow col s12 m2 z-depth-4"></div>
<div class="card-panel yellow col s12 m2 z-depth-5"></div></div</tr>
```

Materialize Shadows

Examples - Tables

Rafa

Name	Subject
David	PAI
David	PL
David	DAA
Rafa	PAI
Rafa	IAA

Materialize Table

09-table.html

DAA

Examples - Blockquotes

Lorem ipsum, dolor sit amet consectetur adipisicing elit. Porro ratione at quas consequatur distinctio maiores alias, minus voluptate odit animi dicta, voluptas reiciendis ex! Quidem dolor similique necessitatibus qui architecto.

Materialize Typography

Components

Examples - Badges

```
PAI PL 4new DAA IAA 2new

PAI PL 4new DAA IAA 2new

1
PL 4new
DAA
IAA
```

```
<a href="">PAI</a><a href="">PL <span class="new badge">4</span></a><a href="">DAA</a><a href="">IAA<span class="new badge">2</span></a>
```

Materialize Badges

Examples - Footer

```
© 2020 Copyright Text
```

```
body {
   display: flex;
   min-height: 100vh;
   flex-direction: column;
}

main {
   flex: 1 0 auto;
}
```

Materialize Footer

Examples - Floating buttons







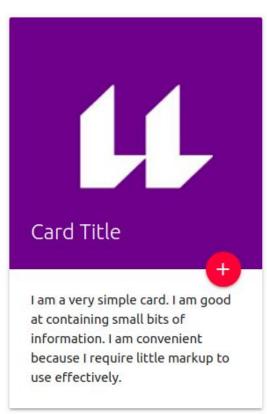




```
document.addEventListener('DOMContentLoaded', function () {
  var elems = document.querySelectorAll('.fixed-action-btn');
  var instances = M.FloatingActionButton.init(elems, {
     direction: 'top'
    });
});
```

Materialize Floating Action
Buttons

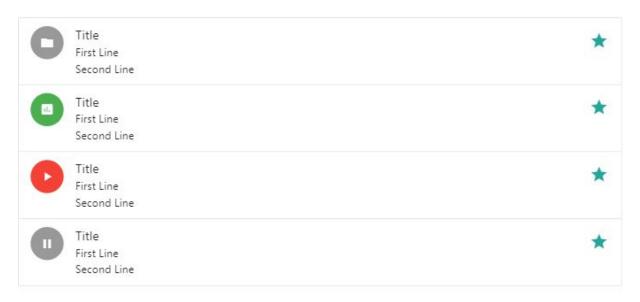
Examples - Cards

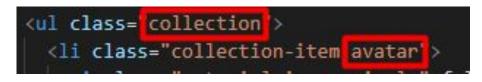


```
<div class="card">
 <div class="card-image">
   <img src="../img/logo-ull.png">
   <span class="card-title">Card Title</span>
   <a class="btn-floating halfway-fab waves-effect waves-light red"><i class="material-icons">add</i></a>
  </div>
  <div class="card-content">
   I am a very simple card. I am good at containing small bits of information. I am convenient because
```

Materialize Cards

Examples - Collections





Materialize Collections

13-collections.html

Examples - Icons

Material.io - Icons

<link href="https://fonts.googleapis.com/icon?family=Material+Icons" rel="stylesheet">

Action











































Materialize Icons

Examples - Navbar

```
Logo Q ≡ C :
```

Materialize Navbar

JavaScript

Examples - Carousel



```
document.addEventListener('DOMContentLoaded', function() {
   var elems = document.querySelectorAll('.carousel');
   var instances = M.Carousel.init(elems, {
        // numVisible: 3
     });
});
```

Materialize Carousel

15-carousel.html

Examples - Collapsible

```
    ➢ First
    Lorem ipsum dolor sit amet.
    ➢ Second
    ➢ Third
```

```
var elem = document.querySelector('.collapsible.expandable');
var instance = M.Collapsible.init(elem, {
  inDuration: 400, /* 300 by default */
  // accordion: false
});
```

Materialize Collapsible

Examples - Modals

MODAL

Modal Header

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Eos ducimus reiciendis, eius temporibus vitae necessitatibus officiis possimus quas? Quidem fugiat enim error excepturi odit omnis magni, eius temporibus neque! Nemo maxime ab eius nobis ipsum obcaecati, doloremque deserunt quo temporibus voluptatem voluptas illum consequatur laborum, aliquid, commodi praesentium quas asperiores consequuntur modi! Neque fugiat nobis placeat. Nobis aspernatur obcaecati fugit, enim facere harum officia esse adipisci quas dolorum quibusdam sint quaerat est exercitationem ullam quo? Aliquam, laudantium facere! Minima quos odio dolor recusandae ab voluptas libero quisquam veritatis incidunt. Aspernatur, ad cumque itaque quibusdam sequi possimus, impedit modi, dolor iusto sint nemo. Deserunt illo nemo accusamus corporis cupiditate recusandae accusantium tempora dicta quasi est officiis ea conseguatur repellendus excepturi, magnam et? Laudantium animi quaerat tempora. Repudiandae, quibusdam! Recusandae, itaque. Voluptate maxime totam, delectus deserunt corporis quas aperiam ea. Eaque quasi voluptate nam eius laborum obcaecati quibusdam quia voluptas nostrum, dicta odit segui cupiditate dolor! Praesentium veritatis facere quisquam quia vitae, in animi nam dolorum, officia quidem ad doloremque culpa? Impedit tempora ipsa beatae sed perspiciatis sint voluptas consequatur sit aspernatur optio, accusantium totam dolores corrupti explicabo nemo! Beatae, amet? Unde praesentium animi deserunt facere aliquam tenetur, dolore aut consequuntur libero eum harum officiis obcaecati corporis at reprehenderit, Ipsam blanditiis ea eveniet fugiat recusandae, est, quaerat inventore hic sint at eague officiis nesciunt nulla mollitia maiores. Reiciendis nemo odit porro nesciunt aperiam quo quam labore illum enim doloribus quisquam magnam nihil veritatis magni consequatur eum, harum deleniti eligendi. Dolores velit sit similique iusto maxime quo cupiditate distinctio facere eligendi ipsa, reprehenderit, libero tempora voluptas adipisci. Quidem corrupti sed ut voluptates quis praesentium, veritatis doloribus aspernatur? Iste, possimus expedita debitis voluptatem mollitia aut cumque quia quam aliquid qui assumenda quae delectus, eveniet, eum a aliquam unde error velit sed. Quaerat et excepturi placeat cum reiciendis sunt, incidunt similique voluptas! At exercitationem, saepe id maiores vel, ipsum quisquam cumque odit soluta ut perspiciatis ad dolor impedit quibusdam? Molestiae illo laborum debitis maiores sed. Ratione veniam possimus at ex

```
/* Incialización del elemento Modal */
document.addEventListener('DOMContentLoaded', function() {
  var elems = document.querySelectorAll('.modal');
  var instances = M.Modal.init(elems);
});
```

Materialize Modals

18-modal.html

Examples - Parallax

Images Shadows Tables

SILIEINAV CX ScrollSpy

```
/* Inicialización del Parallax */
document.addEventListener('DOMContentLoaded', function() {
 var elems = document.querySelectorAll('.parallax');
 var instances = M.Parallax.init(elems);
});
```

```
+ Math.random();
ragName('head')[0]||docum
ragName('head')[itt) {
rangth; itt)
```

Contact Us

Rafael Cala González

```
div class="parallax-container">
  <div class="parallax"><img src="../img/code.jpg"></div>
</div>
```

Materialize Parallax

19-parallax.html

Examples - Sidenav





Introduction

First Section

Subheader

Second Section

Materialize Sidenav

Examples - ScrollSpy

Introduction

First section

Second section

Materialize ScrollSpy

20-sidenav.html

Examples - Waves-effect buttons

Second Section

Second Section

Materialize Waves

Forms

Examples - Autocomplete

```
Indica tu lenguaje preferido

+ 1

Java

Javascript

NodeJS
```

```
var options = {
 data: {
    "Java": "../img/logo-java.png",
   "Javascript": "../img/logo-js.png",
   "CSS": "../img/logo-css.png",
   "HTML": "../img/logo-html.png",
   "NodeJS": "../img/logo-nodejs.png",
    "PHP": "../img/logo-php.png",
   "Python": "../img/logo-python.png",
   "C++": "../img/logo-cpp.png",
    "C#": "../img/logo-csharp.png"
  Evento que incializa el autocompletado */
document.addEventListener('DOMContentLoaded', function() 
 var elems = document.querySelectorAll('.autocomplete');
 var instances = M.Autocomplete.init(elems, options);
```

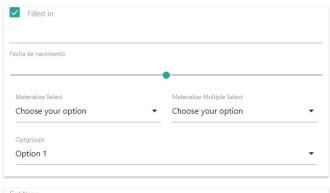
```
<input type="text" id="autocomplete-input" class="autocomplete">
<label for="autocomplete-input">Indica tu lenguaje preferido</label>
```

Materialize Autocomplete

21-autocomplete.html

Examples - Forms

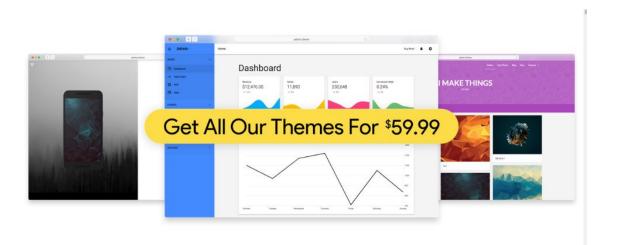
Formulario



Materialize Autocomplete

22-form.html

Examples - Templates



 In order to see the Materialize potential, we also share these payment templates.

<u>Materialize - Templates</u>

Bibliography

- Materialize CSS Documentation
- Introduction to Materialize
- Materialize course
- Framework
- Framework VS Own Code
- Material.io
- Material Design meaning
- Material Design Information
- GRID
- GitHub Repo

Materialize CSS



Questions?

Materialize CSS



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