







Web Developer

HTML, CSS e Strumenti di Digital Marketing (SEO, SEM, SEA)

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includere nell'head del documento delle risorse di tipo CSS e JS che ci permette di creare presentazioni e un po' di logica per le parti di presentazione di bootstrap.

ha una sorte di reboot (riavvio) come se fossero fogli di stili come reset normalize o destyle, e ci garantisce conformità tra i browser quindi che il mio progetto sarò uguale su diversi browser (Firefox, Google), nel caso ci fosserò dei problemi di compatibilità tra i browser, si occupa proprio BOOTSTRAP di fixare determinati problemi con rilascio di nuovi aggiornamenti

Bootstrap

Core

Shadi Lahham - Web development

E UN !FRAMEWORK!

LIBRERIA --> è codice che viene scritto da qualcun'altro e verrà usato per i nostri bisogni, per avercele lo possiamo scaricare importare, scaricare...

prima di poter utilizzare una libreria, bisogna importarlo nel nostro codice mettendo il NOME DI QUELLA LIBRERIA. generalmente comprendono tante funzioni che sono racchiuse in un contenitore

Bootstrap

FRAMEWORK --> è sempre codice scritto da qualcun altro che possiamo usare per i nostri bisogni, ma comprende anche tante REGOLE di comportamento (come scrivere codice, cosa devo includere...) quindi dovrò scrivere l'HTML come me lo chiede il framework bootstrap, non posso deciderlo io

What is Bootstrap slide 4 - 7 pregi e difetti

- Layout and grid system
- Mobile first
- Responsive
- Consistent cross-browser style
- Several useful UI components
- Good defaults for many HTML elements

Why Bootstrap

- Great grid system
- Supports major browsers and adds CSS compatibility fixes
- Lightweight and customizable
- Many free and professional templates for UI elements
- Good documentation and community support
- Open-source and free to use
- Support for
 - JavaScript plugins
 - Usability and web accessibility

Why not Bootstrap

- Bootstrap sites look the same unless heavily customized
- Customizing Bootstrap
 - Requires lots of style overrides
 - Rewriting core classes
- Bootstrap core and utility classes verbose
 - Leads to long, illegible, difficult to manage HTML files
 - No separation of concerns: HTML used as a presentation layer
- Not perfectly compliant with standards
- v4 requires jQuery which is quite heavy

Why not Bootstrap

- Bootstrap makes developers lazy
- Creating custom non-Bootstrap components from zero
 - Difficult and requires a lot of skill and time
 - Complete control over the components
 - Easy to modify and add functionality
 - Makes sites and apps standout
 - Better developer with improved CSS and HTML skills
- When to use Bootstrap
 - Quick prototypes for client feedback
 - Basic front-end interface for back-end focused applications

Bootstrap 5

- Removed jQuery
- Removed IE10 and IE11 support
- Better grid system
- New and improved components
- Added <u>Bootstrap Icons</u>
- Support for <u>CSS custom properties</u>
- RTL support
- Bootstrap 4 vs 5 differences

Installing Bootstrap

Install Bootstrap - jsDelivr CDN ecco un esempio di come si utilizza bootstrap:

```
<head>
 <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.1/dist/css/bootstrap.min.css"</pre>
rel="stylesheet"
    integrity="sha384-F3w7mX95PdgyTmZZMECAngseQB83DfGTowi0iMjiWaeVhAn4FJkqJByhZMI3AhiU"
crossorigin="anonymous">
</head>
<body>
 <!-- end of body -->
 <!-- Bootstrap Bundle & Popper -->
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.1/dist/js/bootstrap.bundle.min.js"</pre>
    integrity="sha384-/bQdsTh/da6pkI1MST/rWKFNjaCP5gBSY4sEBT38Q/9RBh9AH40zEOg7Hlq2THRZ"
    crossorigin="anonymous"></script>
</body>
```

Install Bootstrap - Compiled CSS and JS

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

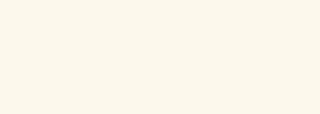
<body>
    <!-- end of body -->
    <!-- Bootstrap Bundle & Popper -->
    <script src="./assets/dist/js/bootstrap.bundle.min.js"></script>
</body>
```

Note

Download compiled Bootstrap files to /assets/dist

Install Bootstrap - references

Introduction Download



Bootstrap layout

Bootstrap grid

bootstrap si basa su una GRIGLIA che è già di suo responsive che quindi possiede differenti breakpoints

- Bootstrap uses a grid system (example)
- The Bootstrap grid is a 12 column system
- Bootstrap <u>breakpoints</u>
 - **xs** < 576px
 - o **sm** ≥576px
 - o **md** ≥768px
 - o **lg**≥992px
 - \circ **xl** \geq 1200px
 - o **xxl** ≥1400px

Bootstrap containers

Containers

- Center and horizontally pad content
- Fully responsive
- Breakpoints determine container max-width
 - o **xs** auto
 - o **sm** 540px
 - o **md** 720px
 - \circ **lg** 960px unità di misura secondo bootstrap (come quelle delle magliette)
 - o xl 1140px https://getbootstrap.com/docs/5.1/layout/containers/
 - o **xxl** 1320px

Container, rows and columns

la classe col indicherà un 1 / 3 dello spazio disponibile dato che sono in totale 3 columns

Bootstrap columns

normalmente si ragiona sul numero12 (dodicesimi), perché il numero + divisibile tra tutti

Important column concepts

- Equal-width columns
- se ce solo col andranno a spartirsi lo spazio tra + columns in maniera equa automaticamente
- Fixed width columns
 - < div class="col-6">

<div class="col">

- <u>Variable width column</u>
 - <div class="col-auto"> auto significa: che l'elemento occupa lo spazio necessario in base al suo contenuto
- Nesting
- Responsive columns
 - <div class="col-md-8"> column che è contenuto dentro row che a sua volta è contenuto in .container occuperà 8 dodicesimi
- Row columns
 - o <div class="row row-cols-3"> cosi andiamo ad indicare che in ogni riga possiamo contenere max 3 colonne

Additional column concepts

- <u>Vertical</u> and <u>horizontal</u> alignment
- Breaking and wrapping
- Column <u>ordering</u>
- Offset and margin classes
- <u>Standalone columns</u>
- Gutters

Bootstrap content

Bootstrap reboot

Bootstrap reboots HTML element styles to create a consistent starting point It is a similar concept to:

- Reset CSS
- Normalize.css
- <u>Destyle.css</u>

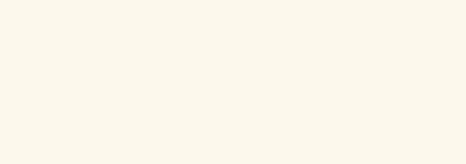
It is important to understand what <u>Bootstrap reboot</u> does because it will affect all HTML elements of the website or application

Bootstrap content

Bootstrap provides utility classes for the following content

- Typography
- Images
- <u>Tables</u>
- Figures

In general, content containers are responsive by default and very customizable



Bootstrap utilities

Bootstrap utilities

Bootstrap has many utility classes, especially

- <u>Utilities for layout</u>
- Spacing
- <u>Colors</u>
- Background
- <u>Borders</u>
- <u>Text</u>

Bootstrap forms

Bootstrap forms

Bootstrap improves some form elements and provides consistent UI across browsers

- Form controls
- Checks and radios
- Input group
- Complex grid based form layouts
- <u>Select</u>
- Range
- Floating labels
- Improve from validation

Important form concepts

- Styled checkboxes and radios with consistent UI using <u>form-check</u>
- Indeterminate checkboxes
 - o More details about <u>:indeterminate</u>
- Switches
 - Basically checkboxes, just styled differently
- Input groups
 - Which can also have <u>buttons with dropdowns</u>
- Grid based forms
 - o <u>vertical</u> and <u>horizontal</u>
- Form validation
 - <u>Custom styles</u> and <u>tooltips</u>

Your turn

1.In formation

- Study all the external links in the presentation
- Create a complex bootstrap form that should
 - Contain at least 15 different input types
 - Use custom style validation or tooltips
 - Connected to and tested on <u>RequestBin</u>
 - Validation should include at least the following
 - Validation methods: Required, minlength and maxlength for text input, min and max for number input, pattern
 - Types: number, an email, date
- Include your html, css and js files in the delivery