



Bootstrap 4.1

Office of Academic Resources and Information Technology
(13-07-2018)

Bootstrap ?

Build responsive, **mobile-first** projects on the web with the world's most popular **front-end component library**.

CSS Framework

CSS Library

Other CSS Libraries

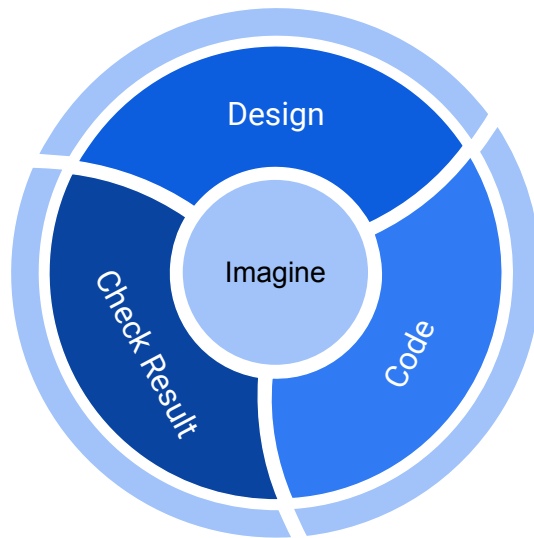
- **Materialize** (Material Design concept)
- **W3Schools**
- **Bulma** (base on Flexbox)
- **Pure.css** (minimal, css only)

Why Bootstrap ?

Answer = **The world's most popular framework**

- More google results
- More integrate/support plugin
- More stable

Front-end Development



Front-end Components

1. **HTML (v.5)**
2. **CSS (v.3)**
3. **JavaScript (Not Java)**
 - a. JavaScript Libraries (jQuery)
 - b. JavaScript Framework (Angular, React, Vue)
 - c. TypeScript (Superset of JavaScript)

Code Editor for Developer 2018

- Visual Studio Code (vs code)
- Sublime Text
- Atom
- Brackets

* Order by most recommend

Install [VS Code](#) & some ext.

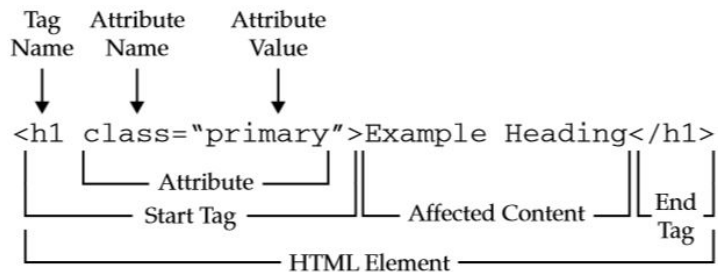
- Google / Search / Download & Install
- Install extension
 - Bootstrap 4 & Font awesome snippets for Visual studio code
 - Live Server
- Done !

Create “Your-name” folder for today

- a-z (**lower case** recommend)
- 0-9
- Place on your desktop (recommend)

HTML

A graphical overview of the HTML markup syntax shown so far is presented here:



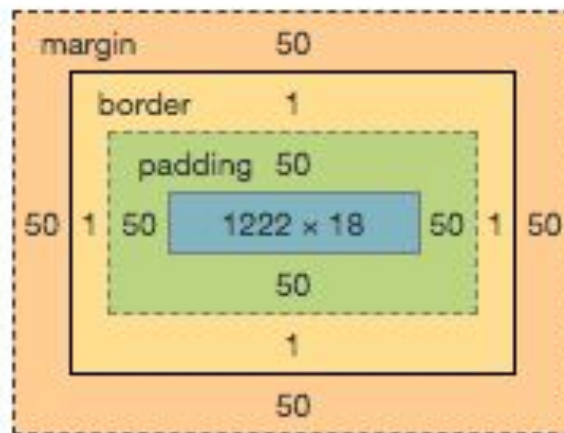
from : <https://tutorial.techaltum.com/htmlTags.html>

Example 1 : HTML Basic

Display

1. Block (div)
2. Inline (span)
3. Inline-block (button)
4. Flex ?

Example 2 : Margin / Padding

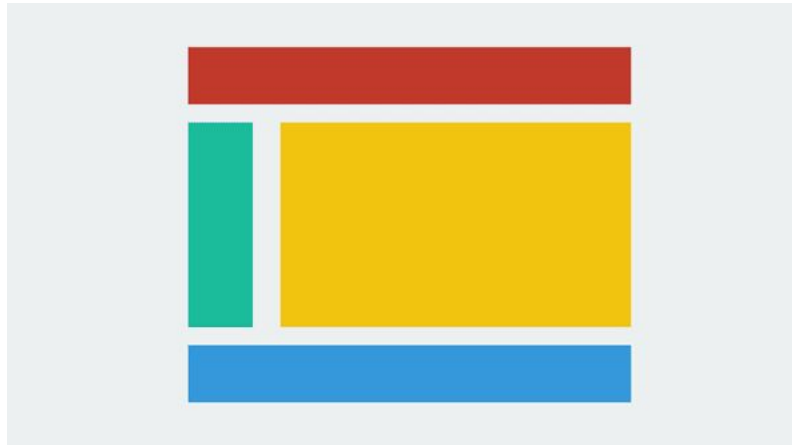


Example 3 : Holy Grail Layout

Float

1. Left
2. Right
3. None

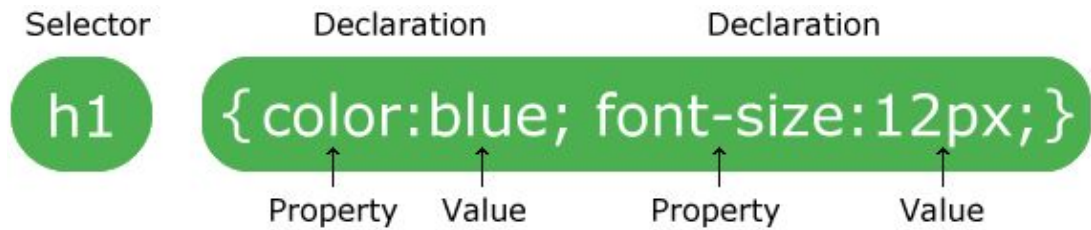
Clear



CSS

- How to attach CSS
 - Inline style
 - `<style></style>`
 - `<link />`
- Selector
 - ID
 - Class
 - Tag Name
 - Pseudo Element (hover, focus)

CSS Syntax



Example 4 : Css Basic

- Inline Style attach CSS
- Tag Name as Selector

Example 5: ID, Class & Pseudo

- # = ID (sharp)
- . = Class (dot)
- : = Pseudo (colon)
- Attach via `<link />`

Bootstrap Getstart !

- Download from getbootstrap.com
- Node.js (npm) Build tools
- Content Delivery Network (CDN)

Bootstrap Setup

- Meta tag (viewport)
- CSS
- JavaScript (optional)
 - jQuery first,
 - then Popper.js,
 - then Bootstrap JS

Example 6 Starter template

- Bootstrap 4 snippet
- Bootstrap Container Class
- Font Awesome 4
- Google Font

Bootstrap Responsive Layout

- Responsive breakpoints
- Containers
- Grid
- Margin / Padding
- Display

Responsive breakpoints

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

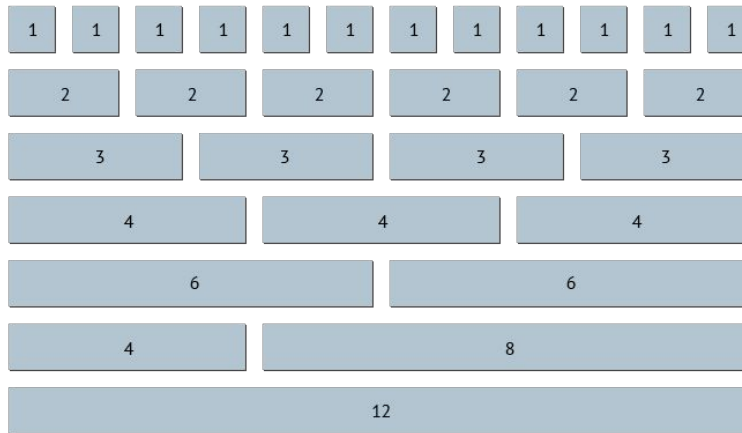
Example 7 Responsive breakpoints

- Display Utilities
- Container
- Margin

Bootstrap Container

- **.container**
 - responsive pixel width
- **.container-fluid**
 - Width 100% across all viewport and device

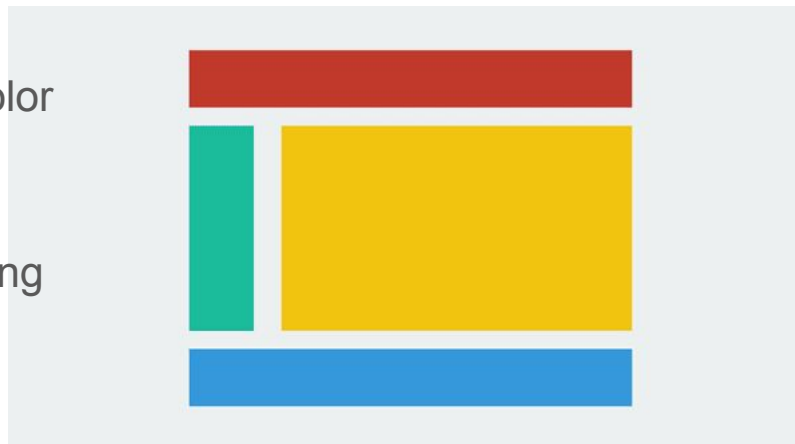
Bootstrap Grid System



From <https://www.c-sharpcorner.com/article/bootstrap-grid-system/>

Example 8 Holy Grail Layout by Bootstrap

- Grid System
- Background color
- Text color
- Reordering
- Margin / Padding



Bootstrap Grid Property

- Base on 12 columns
- Auto-layout columns
- Setting one column width
- Variable width content
- Equal-width multi-row
- And more...

Bootstrap Content

- Typography
- Images
- Tables

Example 9 Image

- Grid
- Image-fluid (responsive)
- Image class
- Heading
- Paragraph
- List

Example 10 Table

- Grid
- Table class
- Image-fluid (responsive)
- Heading with small tag

Bootstrap Components

- Navigation
- Card
- Form
- Buttons
- Alerts
- Modal
- Carousel

Example 11 Navigation

- Navbar class
- Set expand breakpoint
- Light/Dark schema
- Set background color
- Set fixed top

Example 12 Card

- Card
- Card Image
- Card Title / Content
- Card Header / Footer
- Card Button
- Card List Group
- Grid

Example 13 Form

- Grid
- Form
- Input box
- Select box
- Radio box
- Check box
- Button
- Alert
- Validation class

Example 14 Modal

- Modal
- Modal Size
- Vertically centered

Example 15 Carousel

- Carousel
- Carousel with control
- Carousel with indicators
- Carousel with captions

End, Thank you.