Front-end Essentials

Bootstrap 4

Table of Contents

- Overview
- Layout
- Typography
- Commonly Components

Lesson Objectives

- Understand basic concepts of Bootstrap 4
- Able to create layout using Bootstrap 4
- Able to use Components of Bootstrap 4 to create complex web app

Section 1

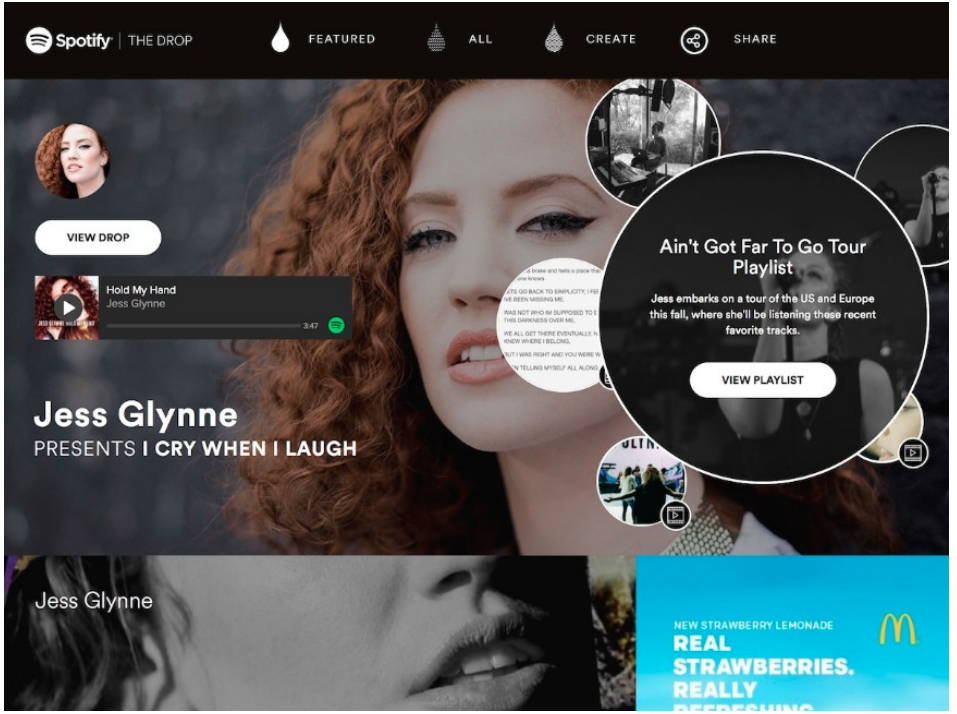
Overview

Overview – What is Bootstrap?

- CSS framework for **faster** and **easier** web development.
- Includes HTML and CSS based design templates.
- Easily create responsive designs.

Overview – Why Bootstrap?

- Beautiful, Modern Design
- Browser support
- Easy to learn
- Responsive Web Design
- Design faster



Overview – How to use Bootstrap?

- **Step 1**: Download Bootstrap at https://getbootstrap.com/
- **Step 2**: Add the HTML5 doctype
- **Step 3**: Add meta tag and links

Overview – Summary

- CSS framework for **faster** and **easier** web development.
- **Benefits**: Beautiful and Modern Design, Browser support, Easy to learn, Responsive Web Design, Design faster
- Start using Bootstrap 4 by download and add it to html page

Section 2

Layout

Layout – Container

- Important in Web design
- Help to create a skeleton for our web page

Layout – Container

- Syntax:

```
<div class="container">
  <!-- Content here -->
</div>
```

```
<div class="container-fluid">
  ...
</div>
```

- Use `.container-fluid` for a full width container, spanning the entire width of the viewport

Layout – Grid System

- **Problem:** How to create vertically align block ?
- **Simple Solution:** Use CSS `float` or `position` property
- **With Bootstrap**: Use Grid System

```
<div class="container">
  <div class="row">
    <div class="col-sm">
      One of three columns
    </div>
    <div class="col-sm">
      One of three columns
    </div>
    <div class="col-sm">
      One of three columns
    </div>
  </div>
</div>
```

One of three columns	One of three columns	One of three columns

Layout – Grid System

- **Syntax:** `.col-a-b`
  - ✓ a: symbol of device (`sm`, `md`, `lg`, `xl`)
  - ✓ b: number of columns (`1`, `2`, `3` up to `12`)

	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				

Layout - Summary

- Use `.container` and `.container-fluid` to create frame/skeleton for you web page
- Create complex layout with **Grid System**
- **Grid System** consists of **row** where each row is composed of 12 **columns**
- Use class prefix `.col`, `.col-sm-`, `.col-md-`, `.col-lg-`, `.col-xl-` to create responsive web app

Section 3

Typography

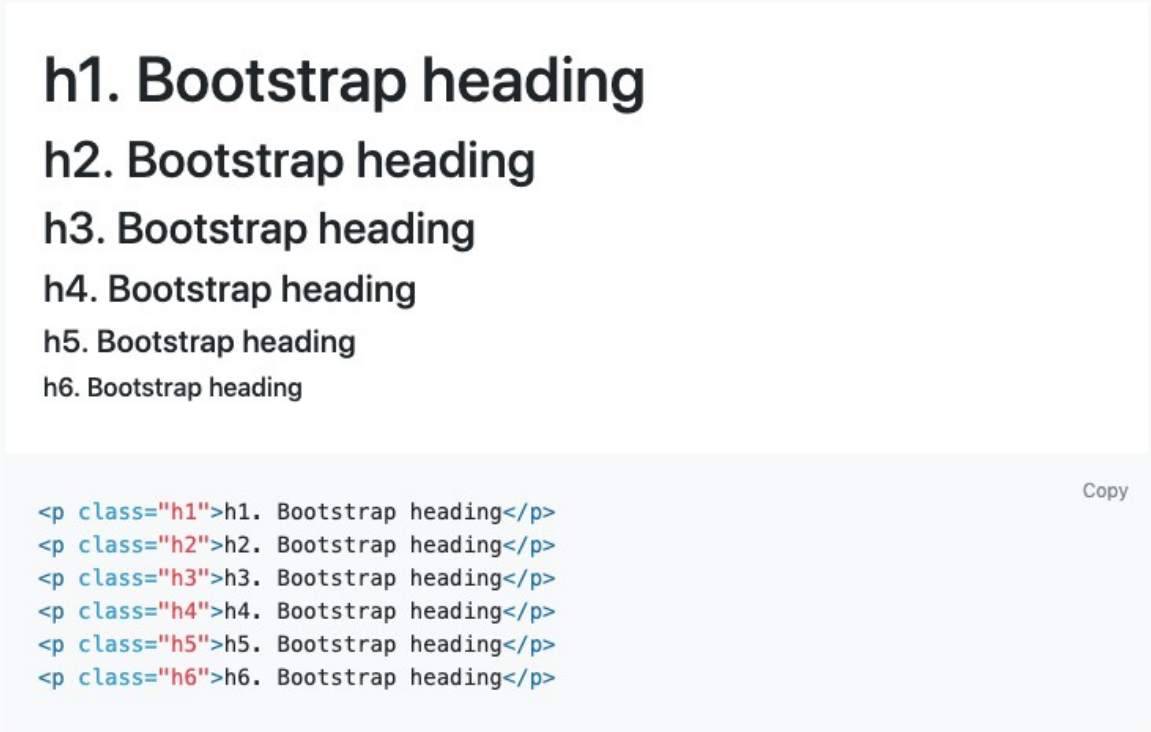
Typography – Headings

- All HTML headings, `<h1>` through `<h6>`, are available

Heading	Example
`<h1></h1>`	h1. Bootstrap heading
`<h2></h2>`	h2. Bootstrap heading
`<h3></h3>`	h3. Bootstrap heading
`<h4></h4>`	h4. Bootstrap heading
`<h5></h5>`	h5. Bootstrap heading
`<h6></h6>`	h6. Bootstrap heading

Typography – Headings

- Classes `.h1` through `.h6` are also available



Typography – Text alignment

- Easily realign text to components with text alignment classes

Left aligned text on all viewport sizes.

Center aligned text on all viewport sizes.

Right aligned text on all viewport sizes.

Left aligned text on viewports sized SM (small) or wider.

Left aligned text on viewports sized MD (medium) or wider.

Left aligned text on viewports sized LG (large) or wider.

Left aligned text on viewports sized XL (extra-large) or wider.

Copy

```
<p class="text-left">Left aligned text on all viewport sizes.</p>
<p class="text-center">Center aligned text on all viewport sizes.</p>
<p class="text-right">Right aligned text on all viewport sizes.</p>

<p class="text-sm-left">Left aligned text on viewports sized SM (small) or wider.
<p class="text-md-left">Left aligned text on viewports sized MD (medium) or wider
<p class="text-lg-left">Left aligned text on viewports sized LG (large) or wider.
<p class="text-xl-left">Left aligned text on viewports sized XL (extra-large) or
```

Typography – Text transform

- Transform text in components with text capitalization classes

lowercased text.

UPPERCASED TEXT.

CapiTaliZed Text.

```
<p class="text-lowercase">Lowercased text.</p>
<p class="text-uppercase">Uppercased text.</p>
<p class="text-capitalize">CapiTaliZed text.</p>
```

Copy

Typography – Lists

- **Unstyled**: Remove the default `list-style` and left margin on list items

```
<ul class="list-unstyled">
  <li>Lorem ipsum dolor sit amet</li>
  <li>Consectetur adipiscing elit</li>
  <li>Integer molestie lorem at massa</li>
  <li>Facilisis in pretium nisl aliquet</li>
  <li>Nulla volutpat aliquam velit
    <ul>
      <li>Phasellus iaculis neque</li>
      <li>Purus sodales ultricies</li>
      <li>Vestibulum laoreet porttitor sem</li>
      <li>Ac tristique libero volutpat at</li>
    </ul>
  </li>
  <li>Faucibus porta lacus fringilla vel</li>
  <li>Aenean sit amet erat nunc</li>
  <li>Eget porttitor lorem</li>
</ul>
```

Lorem ipsum dolor sit amet
Consectetur adipiscing elit
Integer molestie lorem at massa
Facilisis in pretium nisl aliquet
Nulla volutpat aliquam velit
- Phasellus iaculis neque
- Purus sodales ultricies
- Vestibulum laoreet porttitor sem
- Ac tristique libero volutpat at

Faucibus porta lacus fringilla vel
Aenean sit amet erat nunc
Eget porttitor lorem

Typography – Lists

- **Inline**: Remove a list's bullets and apply some light `margin` with a combination of two classes, `.list-inline` and `.list-inline-item`

Lorem ipsum Phasellus iaculis Nulla volutpat

```
<ul class="list-inline">
  <li class="list-inline-item">Lorem ipsum</li>
  <li class="list-inline-item">Phasellus iaculis</li>
  <li class="list-inline-item">Nulla volutpat</li>
</ul>
```

Typography – Summary

- Bootstrap sets basic global display, typography, and link styles
- Change text alignment, transform, style, weight, and color with our text utilitiesand color utilities.

Thank you