Lesson 2:
Fundamentals of Twitter Bootstrap

INTRODUCTION

- What is Bootstrap?

  - It is a open source front-end CSS framework for faster and easier web development

  - Includes HTML and CSS based design templates for

    - **Typography**
    - **Forms**
    - **Buttons**
    - **Tables**

    - **Navigation**
    - **Modals**
    - **Image carousels**
    - **As well as optional JavaScript plugins**

INTRODUCTION

- Gives us the ability to easily create responsive designs

- Responsive Design?

  - Creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.

- It was developed by Mark Otto and Jacob Thornton at Twitter

- And released as open source product in August 2011 on GitHub

INTRODUCTION

- Why Bootstrap?

  - **Easy to use:** Anybody with just basic knowledge of HTML and CSS can start using it

  - **Responsive features:** adjusts to phones, tablets, and desktops

  - **Mobile-first approach:** In Bootstrap 3, mobile-first styles are part of the core framework

  - **Browser compatibility:** Bootstrap is compatible with all modern browsers

    - Eg. Chrome, Firefox, Internet Explorer, Edge, Safari, and Opera

GETTING STARTED

- **Getting Bootstrap**

- Two ways

  - Download from https://getbootstrap.com/docs/3.3/ OR

  - Include Bootstrap from a CDN

GETTING STARTED

- Download from https://getbootstrap.com/docs/3.3/

  - Download all files and dependencies of bootstrap as compressed zip file.

  - Then add it to your project as an external CSS file

  Download Bootstrap

  Currently v3.3.7

GETTING STARTED

- Include Bootstrap from a CDN

  - If you want it from online repository as external CSS, you can include it from external CDN (Content Delivery Network)

  - You can find a number of CDN providers but for this lesson we are going to use the following.

GETTING STARTED

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

GETTING STARTED

```
<!-- jQuery library -->
<script src="https://ajax.googleapis.com/ajax/libs
/jquery/3.3.1/jquery.min.js"></script>
```

GETTING STARTED

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

GETTING STARTED

- **Advantage of using CDN**

  - Faster loading time.

Many users already have downloaded Bootstrap from MaxCDN when visiting another site. As a result, it will be loaded from cache when they visit your site, which leads to faster loading time.

Also, most CDN's will make sure that once a user requests a file from it, it will be served from the server closest to them, which also leads to faster loading time.

GETTING STARTED

- **jQuery**

  - Bootstrap uses jQuery for JavaScript plugins (like modals, tooltips, etc).

  - But, if you use only the CSS part of BS, you don't need jQuery

CREATE 1ST WEB PAGE

- Add the HTML5 doctype

  - BS uses HTML elements and CSS properties that require the HTML5 **doctype**.

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
  </head>
</html>
```

CREATE 1ST WEB PAGE

- Mobile-first approach:

  - To enable **m-first** for your design, add the following <meta> tag inside the <head> element.

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

  - The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).

CREATE 1ST WEB PAGE

- The `initial-scale=1` → sets the initial zoom level when the page is first loaded by the browser.

- Containers

  - BS needs a containing element to wrap site contents.

  - Two container classes to choose from:

CREATE 1ST WEB PAGE

.container
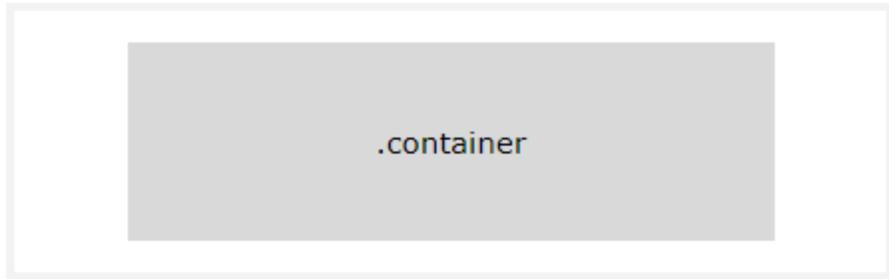
.container-fluid
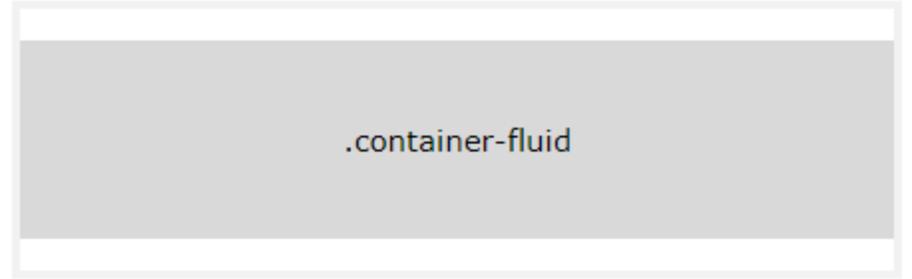
.container

.container-fluid

BOOTSTRAP GRID SYSTEM

- Bootstrap's grid system allows up to 12 columns across the page.

- If you do not want to use all 12 columns individually, you can group the columns together to create wider columns:

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											
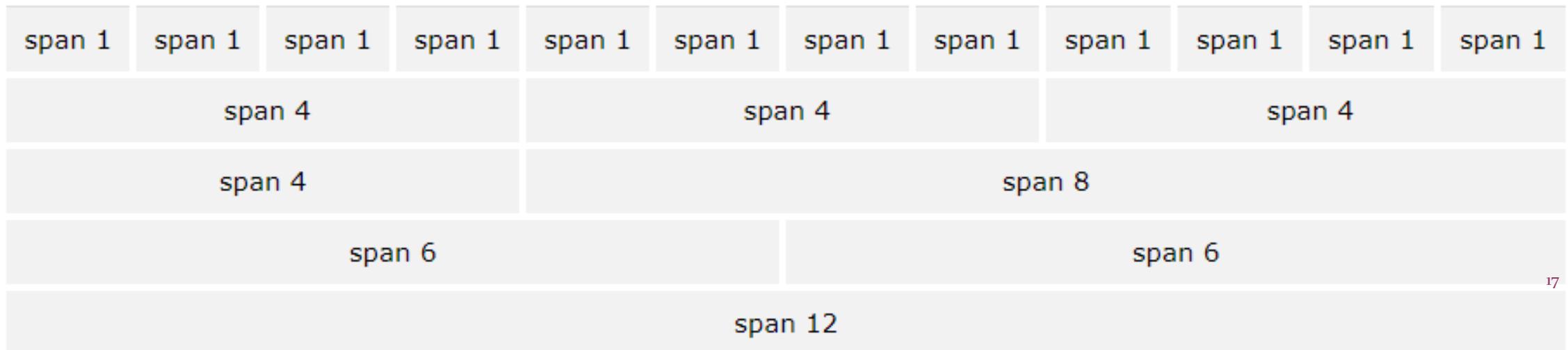
CREATE 1ST WEB PAGE

- Grid classes : 4 classes

  - xs (for phones - screens less than 768px wide)

  - sm (for tablets - screens equal to or greater than 768px wide)

  - md (for small laptops - screens equal to or greater than 992px wide)

  - lg (for laptops and desktops - screens equal to or greater than 1200px wide)

  The classes above can be combined to create more dynamic and flexible layouts.

BOOTSTRAP GRID SYSTEM

- Basic structure of grid:

```html
<div class="row">
  <div class="col-*-*"></div>
  <div class="col-*-*"></div>
</div>
<div class="row">
  <div class="col-*-*"></div>
  <div class="col-*-*"></div>
  <div class="col-*-*"></div>
</div>
<div class="row">
  ...
</div>
```

BOOTSTRAP GRID SYSTEM

■Exercise:

■ Create a webpage with the following grid system

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

TEXT / TYPOGRAPHY

- **Text / Typography**

  - Bootstrap's default settings:

    - Global default font-size is 14px. With a line-height of 1.428

    - This is applied to the **\<body\>** element and all paragraphs

TEXT / TYPOGRAPHY

By default, Bootstrap will style the HTML headings (<h1> to <h6>) in the following way:

Example

h1 Bootstrap heading (36px)

h2 Bootstrap heading (30px)

h3 Bootstrap heading (24px)

h4 Bootstrap heading (18px)

h5 Bootstrap heading (14px)

h6 Bootstrap heading (12px)

Try it Yourself »

TEXT / TYPOGRAPHY

<small>

In Bootstrap the HTML <small> element is used to create a lighter, secondary text in any heading:

Example

h1 heading secondary text

h2 heading secondary text

h3 heading secondary text

h4 heading secondary text

h5 heading secondary text

h6 heading secondary text

Try it Yourself »

Tables

- Basic table

The `.table` class adds basic styling to a table:

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

Try it Yourself »

Striped rows

The .table-striped class adds zebra-stripes to a table:

Example

Firstname	Lastname	Email
John	Doe	john@example.com
Mary	Moe	mary@example.com
July	Dooley	july@example.com

Try it Yourself »

TABLES

- **More table classes / properties**

  - **Hover rows:** The .table-hover class adds a hover effect (grey background color) on table rows:

  - **Condensed Table:** The .table-condensed class makes a table more compact by cutting cell padding in half

  - **Contextual classes:** used to color table rows

  - **Responsive tables:** automatically creates horizontal scroll bar for small device displays.

    - Use **.table-responsive** class

  - The .table-hover class adds a hover effect (grey background color) on table rows:

IMAGES

- ## **Contextual classes**

Class	Description
`.active`	Applies the hover color to the table row or table cell
`.success`	Indicates a successful or positive action
`.info`	Indicates a neutral informative change or action
`.warning`	Indicates a warning that might need attention
`.danger`	Indicates a dangerous or potentially negative action

IMAGES

```
<img src="cinqueterre.jpg" class="img-circle" alt="Cinque Terre">
```

.img-rounded

.img-circle

.img-thumbnail
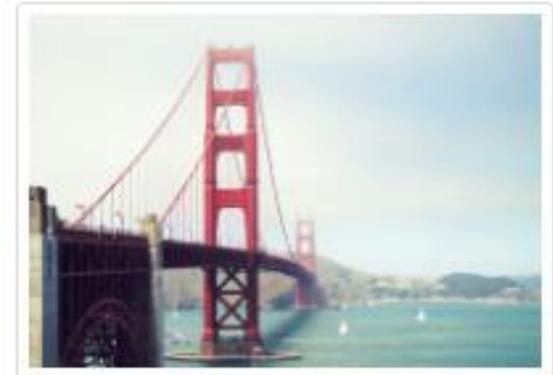
IMAGES

- **Responsive images**

  - automatically adjust to fit the size of the screen.

  - Use .img-responsive to make the image responsive

WELL

Well Size

Small Well

Normal Well

Large Well

Change the size of the well by adding the `.well-sm` class for small wells or `.well-lg` class for large wells:

Example

```html
<div class="well well-sm">Small Well</div>
<div class="well well-lg">Large Well</div>
```

Try it Yourself »

ALERTS

- Bootstrap provides an easy way to create predefined alert messages:

Success! This alert box indicates a successful or positive action. ✕

Info! This alert box indicates a neutral informative change or action. ✕

Warning! This alert box indicates a warning that might need attention. ✕

Danger! This alert box indicates a dangerous or potentially negative action. ✕

Alerts are created with the `.alert` class, followed by one of the four contextual classes `.alert-success`, `.alert-info`, `.alert-warning` or `.alert-danger` :

Thank You!