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What is Bootstrap?

- Bootstrap is a free front-end framework (HTML and CSS) for faster and easier web development

- Bootstrap is famous for being developed with components that have the ability to follow the property of responsive designs
  - Responsive Design is about using CSS and HTML to resize, hide, shrink, enlarge, or move the content to make it look good on any screen
  - Responsive Design allow your page works for computer, tablets and mobile phones.

First Bootstrap Page

- Include the **HTML5 doctype** at the beginning of the page, along with the **lang** attribute and the correct **character set**

```
<!DOCTYPE html>
<html lang="pt">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1">
  </head>
</html>
```

First Bootstrap Page

- Meta **viewport tag** ensure proper rendering and touch zooming

- Width of the page to follow the screen-width of the device and initial zoom level to default zoom level of device

- User will have a better experience, thus will not need zoom the page to view page information

First Bootstrap Page

- You will need to include three files:
  - **bootstrap.min.css**
  - **jquery.min.js**
  - **bootstrap.min.js**

- You must download it and include in you page
- For this example, we include from the Internet

```
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.1.1/jquery.min.js"></script>
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></script>
```

First Bootstrap Page

- Bootstrap has a concept of containing element to wrap site contents

```html
<div class="container">
  <h1>My First Bootstrap Page</h1>
  <p>This is some text.</p>
</div>

<div class="container-fluid">
    <h1>My First Bootstrap Page</h1>
    <p>This is some text.</p>
</div>
```

https://getbootstrap.com/docs/4.4/examples/grid/#containers

Bootstrap Grids

- Bootstrap's grid system allows up to 12 columns across the page
- You can divide the container in rows and each row in columns with space multiple of the 12

Bootstrap Grid Classes

The Bootstrap grid system has four classes:

- xs (for phones)
- sm (for tablets)
- md (for desktops)
- lg (for larger desktops)

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

Bootstrap Grids

- In the bellow example, we divide the space inside the container in 1 row and this row in 3 columns with the same side. 4+4+4 = 12

- You can use any combination that the sum be equal to 12.

```html
<div class="container">
   <h1>Bootstrap Grid</h1>
   <div class="row">
      <div class="col-sm-4">.col-sm-4</div>
      <div class="col-sm-4">.col-sm-4</div>
      <div class="col-sm-4">.col-sm-4</div>
   </div>
</div>
```

Bootstrap Grids

- Responsive Bootstrap's grid system with 3 columns

small screens

big screens

Bootstrap Grid
.col-sm-4
.col-sm-4
.col-sm-4

Bootstrap Grid
.col-sm-4   .col-sm-4   .col-sm-4

Bootstrap Table

- 4 main classes:
  - .table
  - .table-striped
  - .table-bordered
  - .table-hover
- 5 contextual classes:
  - .active
  - .success
  - .info
  - .warning
  - .danger

Bootstrap Tables

```html
<div class="container">
  <h1>Bootstrap Table</h1>
  <table class="table table-striped table-bordered table-hover">
    <thead>
      <tr>
        <th>Firstname</th>
        <th>Lastname</th>
        <th>Email</th>
      </tr>
    </thead>
    <tbody>
      <tr>
        <td>John</td>
        <td>Doe</td>
        <td>john@example.com</td>
      </tr>
      <tr>
        <td>Joseph</td>
        <td>Saints</td>
        <td>joseph@example.com</td>
      </tr>
      <tr class="warning">
        <td>Mary Help</td>
        <td>Saints</td>
        <td>mary@example.com</td>
      </tr>
    </tbody>
  </table>
```

Bootstrap Tables

Bootstrap Table

Firstname	Lastname	Email
John	Doe	john@example.com
Joseph	Saints	joseph@example.com
Mary Help	Saints	mary@example.com

Bootstrap Images

- 3 main classes:
    - _.img-rounded_
    - .img-circle
    - _.img-thumbnail_

```
<div class="row">
  <div class="col-md-4">
    <img class="img-rounded" src="garden-house-hotel-11.jpg" alt="Garden" style="width:100%">
  </div>
  <div class="col-md-4">
    <img class="img-circle" src="XMAS-HOUSE-5-256x256.jpg" alt="Snow" style="width:100%">
  </div>
  <div class="col-md-4">
    <img class="img-thumbnail" src="Accommodation_Image.jpg" alt="Beach" style="width:100%">
  </div>
</div>
```

Bootstrap Alerts

- Bootstrap provides an easy way to create predefined alert messages
- Alerts are created with the .alert class, followed by one of the four contextual classes
- .alert-success
- .alert-info
- .alert-warning
- .alert-danger

Bootstrap Alerts

```html
<div class="container">
  <h1>Bootstrap Alerts</h1>

  <div class="alert alert-success">
     <strong>Success!</strong> Indicates a successful or positive action.
   </div>

    <div class="alert alert-info">
     <strong>Info!</strong> Indicates a neutral informative change or action.
    </div>

    <div class="alert alert-warning">
      <strong>Warning!</strong> Indicates a warning that might need attention.
    </div>

    <div class="alert alert-danger">
      <strong>Danger!</strong> Indicates a dangerous or potentially negative action.
    </div>
</div>
```

Bootstrap Alerts

Bootstrap Alerts

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.

Bootstrap Buttons

- Bootstrap provides seven styles of buttons:
- To achieve the button styles above, Bootstrap has the following contextual classes:

  - .btn-default
  - .btn-primary
  - .btn-success
  - .btn-info
  - .btn-warning
  - .btn-danger
  - .btn-link

Bootstrap Buttons

```html
<div class="container">
  <h1>Bootstrap Button</h1>

    <button type="button" class="btn btn-default">Default</button>
    <button type="button" class="btn btn-primary">Primary</button>
    <button type="button" class="btn btn-success">Success</button>
    <button type="button" class="btn btn-info">Info</button>
    <button type="button" class="btn btn-warning">Warning</button>
    <button type="button" class="btn btn-danger">Danger</button>
    <button type="button" class="btn btn-link">Link</button>

</div>
```

Bootstrap Button

Default Primary Success Info Warning Danger Link

Bootstrap Glyphicons

- Bootstrap provides 260 glyphicons from the Glyphicons Halflings set
- (http://getbootstrap.com/components/)

Bootstrap Glyphicons

```html
<div class="container">
  <h1>Bootstrap glyphicon</h1>

    <p> Simple Span:
        <span class="glyphicon glyphicon-check"></span>
    </p>

    <p>Default button with icon:
        <button type="button" class="btn btn-default"> Play
            <span class="glyphicon glyphicon-play"></span>
        </button>
    </p>

    <p>Search icon on a styled button:
        <button type="button" class="btn btn-info">
            <span class="glyphicon glyphicon-search"></span> Search
        </button>
    </p>

    <p>Link with icon:
        <a href="#" class="btn btn-success btn-lg">
            <span class="glyphicon glyphicon-print"></span> Print
        </a>
    </p>

</div>
```

Bootstrap Labels

- Labels are used to provide information about something

- Bootstrap create labels with colorful backgrounds to highlight the text inside de label

- Use the .label class, followed by one of the six contextual classes .label-default, .label-primary, .label-success, .label-info, .label-warning or .label-danger

Bootstrap Labels

```html
<div class="container">
    <h1>Bootstrap Label</h1>

    <span class="label label-default">Default Label</span>
    <span class="label label-primary">Primary Label</span>
    <span class="label label-success">Success Label</span>
    <span class="label label-info">Info Label</span>
    <span class="label label-warning">Warning Label</span>
    <span class="label label-danger">Danger Label</span>
```

Bootstrap Label

Default Label Primary Label Success Label Info Label Warning Label Danger Label

Bootstrap Themes and Templates

- You can find several templates e themes free to download
  - A **theme** consists of customized CSS
  - A **template** consists of one or more predesigned HTML pages, which often make use of a theme
- Both are collection of bootstrap elements (grids, buttons, panels), put together for someone, until have a fully functional website or web application.
- You can find some free templates here:

  https://startbootstrap.com/template-categories/all/