Web Programming (18CSI351)

Module 4

Bootstrap(Part I)

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What is Bootstrap?

- Bootstrap is a free front-end framework for faster and easier web development
- Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins
- Bootstrap also gives you the ability to easily create responsive designs

What is Responsive Web Design?

Responsive web design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.

Bootstrap Example

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"></script>
</head>
<body>

<div class="jumbotron text-center">
  <h1>My First Bootstrap Page</h1>
  <p>Resize this responsive page to see the effect!</p>
</div>

<div class="container">
  <div class="row">
    <div class="col-sm-4">
      <h3>Column 1</h3>
      <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
      <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco
laboris...</p>
    </div>
    <div class="col-sm-4">
      <h3>Column 2</h3>
      <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
      <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco
laboris...</p>
    </div>
    <div class="col-sm-4">
      <h3>Column 3</h3>
      <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit...</p>
      <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco
laboris...</p>
    </div>
  </div>
</div>

</body>
</html>
```

Bootstrap History

Bootstrap was developed by Mark Otto and Jacob Thornton at Twitter, and released as an open source product in August 2011 on GitHub.

In June 2014 Bootstrap was the No.1 project on GitHub!

Why Use Bootstrap?

Advantages of Bootstrap:

- **Easy to use:** Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
- **Responsive features:** Bootstrap's responsive CSS 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 (Chrome, Firefox, Internet Explorer, Edge, Safari, and Opera)

Where to Get Bootstrap?

There are two ways to start using Bootstrap on your own web site.

You can:

- Download Bootstrap from getbootstrap.com
- Include Bootstrap from a CDN

Downloading Bootstrap

If you want to download and host Bootstrap yourself, go to getbootstrap.com, and follow the instructions there.

Bootstrap CDN

If you don't want to download and host Bootstrap yourself, you can include it from a CDN (Content Delivery Network).

MaxCDN provides CDN support for Bootstrap's CSS and JavaScript. You must also include jQuery:

MaxCDN:

```
<!-- Latest compiled and minified CSS -->
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css">
```

```
<!-- jQuery library -->
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>

<!-- Latest compiled JavaScript -->
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"></script>
```

One advantage of using the Bootstrap CDN:
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.

jQuery
Bootstrap uses jQuery for JavaScript plugins (like modals, tooltips, etc). However, if you just use the CSS part of Bootstrap, you don't need jQuery.

Create First Web Page With Bootstrap

1. Add the HTML5 doctype

Bootstrap uses HTML elements and CSS properties that require the HTML5 doctype.

Always include the HTML5 doctype at the beginning of the page, along with the lang attribute and the correct character set:

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

2. Bootstrap 3 is mobile-first

Bootstrap 3 is designed to be responsive to mobile devices. Mobile-first styles are part of the core framework.

To ensure proper rendering and touch zooming, 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).

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

3. Containers

Bootstrap also requires a containing element to wrap site contents.

There are two container classes to choose from:

1. The `.container` class provides a responsive **fixed width container**
2. The `.container-fluid` class provides a **full width container**, spanning the entire width of the viewport

Two Basic Bootstrap Pages

The following example shows the code for a basic Bootstrap page (with a responsive fixed width container):

Example

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"></script>
</head>
<body>

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

</body>
</html>
```

The following example shows the code for a basic Bootstrap page (with a full width container):

Example

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css">
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"></script>
</head>
<body>

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

```
</body>
</html>
```

Bootstrap Grids

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											

Bootstrap's grid system is responsive, and the columns will re-arrange automatically depending on the screen size.

Grid Classes

The Bootstrap grid system has four 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.

Basic Structure of a Bootstrap Grid

The following is a basic structure of a Bootstrap grid:

```
<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>
```

First; create a row (`<div class="row">`). Then, add the desired number of columns (tags with appropriate `.col-*-*` classes). Note that numbers in `.col-*-*` should always add up to 12 for each row.

Three Equal Columns

.col-sm-4

.col-sm-4

.col-sm-4

The following example shows how to get a three equal-width columns starting at tablets and scaling to large desktops. On mobile phones or screens that are less than 768px wide, the columns will automatically stack:

Example

```
<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>
```

Two Unequal Columns

.col-sm-4

.col-sm-8

The following example shows how to get two various-width columns starting at tablets and scaling to large desktops:

Example

```
<div class="row">
    <div class="col-sm-4">.col-sm-4</div>
    <div class="col-sm-8">.col-sm-8</div>
</div>
```

Bootstrap Text/Typography

<h1> - <h6>

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

Example:

```
<!DOCTYPE html>
```

```
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h1>h1 Bootstrap heading (36px)</h1>
  <h2>h2 Bootstrap heading (30px)</h2>
  <h3>h3 Bootstrap heading (24px)</h3>
  <h4>h4 Bootstrap heading (18px)</h4>
  <h5>h5 Bootstrap heading (14px)</h5>
  <h6>h6 Bootstrap heading (12px)</h6>
</div>

</body>
```

Output:

h1 Bootstrap heading (36px)

h2 Bootstrap heading (30px)

h3 Bootstrap heading (24px)

h4 Bootstrap heading (18px)

h5 Bootstrap heading (14px)

h6 Bootstrap heading (12px)

\<small\>

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

Example:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
```

```
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h1>Lighter, Secondary Text</h1>
  <p>The small element is used to create a lighter, secondary text in any
heading:</p>
  <h1>h1 heading <small>secondary text</small></h1>
  <h2>h2 heading <small>secondary text</small></h2>
  <h3>h3 heading <small>secondary text</small></h3>
  <h4>h4 heading <small>secondary text</small></h4>
  <h5>h5 heading <small>secondary text</small></h5>
  <h6>h6 heading <small>secondary text</small></h6>
</div>
```

Output:

Lighter, Secondary Text

The small element is used to create a lighter, secondary text in any heading:

h1 heading secondary text

h2 heading secondary text

h3 heading secondary text

h4 heading secondary text

h5 heading secondary text

h6 heading secondary text

Contextual Colors and Backgrounds

Bootstrap also has some contextual classes that can be used to provide "meaning through colors".

The classes for text colors are: `.text-muted`, `.text-primary`, `.text-success`, `.text-info`, `.text-warning`, and `.text-danger`:

Example

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

```
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h2>Contextual Colors</h2>
  <p>Use the contextual classes to provide "meaning through colors":</p>
  <p class="text-muted">This text is muted.</p>
  <p class="text-primary">This text is important.</p>
  <p class="text-success">This text indicates success.</p>
  <p class="text-info">This text represents some information.</p>
  <p class="text-warning">This text represents a warning.</p>
  <p class="text-danger">This text represents danger.</p>
</div>
```

Output:

Contextual Colors

Use the contextual classes to provide "meaning through colors":

This text is muted.

This text is important.

This text indicates success.

This text represents some information.

This text represents a warning.

This text represents danger.

The classes for background colors are: `.bg-primary`, `.bg-success`, `.bg-info`, `.bg-warning`, and `.bg-danger`:

Example:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h2>Contextual Backgrounds</h2>
  <p>Use the contextual background classes to provide "meaning through
colors":</p>
```

```
    <p class="bg-primary">This text is important.</p>
    <p class="bg-success">This text indicates success.</p>
    <p class="bg-info">This text represents some information.</p>
    <p class="bg-warning">This text represents a warning.</p>
    <p class="bg-danger">This text represents danger.</p>
</div>

</body>
</html>
```

Output:

Contextual Backgrounds

Use the contextual background classes to provide "meaning through colors":

This text is important.
This text indicates success.
This text represents some information.
This text represents a warning.
This text represents danger.

Bootstrap Tables

Bootstrap Basic Table

A basic Bootstrap table has a light padding and only horizontal dividers.

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

```
Example:
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-
scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.
min.css">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.j
s"></script>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.mi
n.js"></script>
</head>
<body>

<div class="container">
  <h2>Basic Table</h2>
  <p>The .table class adds basic styling (light padding and only
horizontal dividers) to a table:</p>
  <table class="table">
```

```
    <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>Mary</td>
        <td>Moe</td>
        <td>mary@example.com</td>
      </tr>
      <tr>
        <td>July</td>
        <td>Dooley</td>
        <td>july@example.com</td>
      </tr>
    </tbody>
  </table>
</div>

</body>
</html>
```

Output:

Basic Table

The .table class adds basic styling (light padding and only horizontal dividers) to a table:

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

Striped Rows

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

Example:

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

```
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h2>Striped Rows</h2>
  <p>The .table-striped class adds zebra-stripes to a table:</p>
  <table class="table table-striped">
    <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>Mary</td>
        <td>Moe</td>
        <td>mary@example.com</td>
      </tr>
      <tr>
        <td>July</td>
        <td>Dooley</td>
        <td>july@example.com</td>
      </tr>
    </tbody>
  </table>
</div>

</body>
</html>
```

Output:

Striped Rows

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

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

Bordered Table

The `.table-bordered` class adds borders on all sides of the table and cells:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h2>Bordered Table</h2>
  <p>The .table-bordered class adds borders to a table:</p>
  <table class="table table-bordered">
    <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>Mary</td>
        <td>Moe</td>
        <td>mary@example.com</td>
      </tr>
      <tr>
        <td>July</td>
        <td>Dooley</td>
        <td>july@example.com</td>
      </tr>
    </tbody>
  </table>
</div>

</body>
</html>
```

Output:

Bordered Table

The .table-bordered class adds borders to a table:

Firstname	Lastname	Email

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

Hover Rows

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

Example:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h2>Hover Rows</h2>
  <p>The .table-hover class enables a hover state on table rows:</p>
  <table class="table 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>Mary</td>
        <td>Moe</td>
        <td>mary@example.com</td>
      </tr>
      <tr>
        <td>July</td>
        <td>Dooley</td>
        <td>july@example.com</td>
      </tr>
```

```
        </tbody>
    </table>
</div>

</body>
</html>
```

Output:

Hover Rows

The .table-hover class enables a hover state on table rows:

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

Condensed Table

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

Example:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap
/3.4.0/css/bootstrap.min.css">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h2>Condensed Table</h2>
  <p>The .table-condensed class makes a table more compact by cutting cell
padding in half:</p>
  <table class="table table-condensed">
    <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>Mary</td>
         <td>Moe</td>
         <td>mary@example.com</td>
      <tr>
      <tr>
         <td>July</td>
         <td>Dooley</td>
         <td>july@example.com</td>
      </tr>
    </tbody>
  </table>
</div>

</body>
</html>
```

Output:

Condensed Table

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

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

Responsive Tables

The `.table-responsive` class creates a responsive table. The table will then scroll horizontally on small devices (under 768px). When viewing on anything larger than 768px wide, there is no difference:

Example:

```
<!DOCTYPE html>
<html>
<head>
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h2>Table</h2>
  <p>The .table-responsive class creates a responsive table which will
scroll horizontally on small devices (under 768px). When viewing on
anything larger than 768px wide, there is no difference:</p>
  <div class="table-responsive">
  <table class="table">
    <thead>
      <tr>
```

```
          <th>#</th>
          <th>Firstname</th>
          <th>Lastname</th>
          <th>Age</th>
          <th>City</th>
          <th>Country</th>
        </tr>
      </thead>
      <tbody>
        <tr>
          <td>1</td>
          <td>Anna</td>
          <td>Pitt</td>
          <td>35</td>
          <td>New York</td>
          <td>USA</td>
        </tr>
      </tbody>
    </table>
    </div>
</div>

</body>
</html>
```

Output:

Table

The .table-responsive class creates a responsive table which will scroll horizontally on small devices (under 768px). When viewing on anything larger than 768px wide, there is no difference:

#	Firstname	Lastname	Age	City	Country
1	Anna	Pitt	35	New York	USA

Contextual Classes

Contextual classes can be used to color table rows (`<tr>`) or table cells (`<td>`):

Example:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h2>Contextual Classes</h2>
```

```
    <p>Contextual classes can be used to color table rows or table cells. The
classes that can be used are: .active, .success, .info, .warning, and
.danger.</p>
    <table class="table">
      <thead>
        <tr>
          <th>Firstname</th>
          <th>Lastname</th>
          <th>Email</th>
        </tr>
      </thead>
      <tbody>
        <tr>
          <td>Default</td>
          <td>Defaultson</td>
          <td>def@somemail.com</td>
        </tr>
        <tr class="success">
          <td>Success</td>
          <td>Doe</td>
          <td>john@example.com</td>
        </tr>
        <tr class="danger">
          <td>Danger</td>
          <td>Moe</td>
          <td>mary@example.com</td>
        </tr>
        <tr class="info">
          <td>Info</td>
          <td>Dooley</td>
          <td>july@example.com</td>
        </tr>
        <tr class="warning">
          <td>Warning</td>
          <td>Refs</td>
          <td>bo@example.com</td>
        </tr>
        <tr class="active">
          <td>Active</td>
          <td>Activeson</td>
          <td>act@example.com</td>
        </tr>
      </tbody>
    </table>
</div>

</body>
</html>
```

Output:

Contextual Classes

Contextual classes can be used to color table rows or table cells. The classes that can be used are: .active, .success, .info, .warning, and .danger.

Firstname	Lastname	Email
Default	Defaultson	def@somemail.com
Success	Doe	john@example.com
Danger	Moe	mary@example.com
Info	Dooley	july@example.com
Warning	Refs	bo@example.com

Firstname	Lastname	Email
Active	Activeson	act@example.com

Bootstrap Images

Bootstrap Image Shapes

Rounded Corners: Circle: Thumbnail:

Rounded Corners

The `.img-rounded` class adds rounded corners to an image (IE8 does not support rounded corners):

Example

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

Example

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"></script>
</head>
```

```
<body>

<div class="container">
  <h2>Rounded Corners</h2>
  <p>The .img-rounded class adds rounded corners to an image (not available
in IE8):</p>
  <img src="cinqueterre.jpg" class="img-rounded" alt="Cinque Terre"
width="304" height="236">
</div>

</body>
</html>
```

Output:

Rounded Corners

The .img-rounded class adds rounded corners to an image (not available in IE8):

Circle

The `.img-circle` class shapes the image to a circle (IE8 does not support rounded corners):

Example

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

Example

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>
```

```
<div class="container">
  <h2>Circle</h2>
  <p>The .img-circle class shapes the image to a circle (not available in
IE8):</p>
  <img src="cinqueterre.jpg" class="img-circle" alt="Cinque Terre"
width="304" height="236">
</div>

</body>
</html>
```

Output:

Thumbnail

The `.img-thumbnail` class shapes the image to a thumbnail:

Example

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

Example

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h2>Thumbnail</h2>
  <p>The .img-thumbnail class creates a thumbnail of the image:</p>
  <img src="cinqueterre.jpg" class="img-thumbnail" alt="Cinque Terre"
width="304" height="236">
</div>
```

```
</body>
</html>
```

Thumbnail

The .img-thumbnail class creates a thumbnail of the image:

Responsive Images

Images come in all sizes. So do screens. Responsive images automatically adjust to fit the size of the screen.

Create responsive images by adding an `.img-responsive` class to the `<img>` tag. The image will then scale nicely to the parent element.

The `.img-responsive` class applies `display: block;` and `max-width: 100%;` and `height: auto;` to the image:

Example

```
<img class="img-responsive" src="img_chania.jpg" alt="Chania">
```

Bootstrap Jumbotron and Page Header

Creating a Jumbotron

A jumbotron indicates a big box for calling extra attention to some special content or information.

A jumbotron is displayed as a grey box with rounded corners. It also enlarges the font sizes of the text inside it.

Tip: Inside a jumbotron you can put nearly any valid HTML, including other Bootstrap elements/classes.

Use a `<div>` element with class `.jumbotron` to create a jumbotron:

Bootstrap Tutorial

Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile-first projects on the web.

Jumbotron Inside Container

Place the jumbotron inside the `<div class="container">` if you want the jumbotron to NOT extend to the edge of the screen:

Example

```html
<div class="container">
  <div class="jumbotron">
    <h1>Bootstrap Tutorial</h1>
    <p>Bootstrap is the most popular HTML, CSS, and JS framework for developing
    responsive, mobile-first projects on the web.</p>
  </div>
  <p>This is some text.</p>
  <p>This is another text.</p>
</div>
```

Bootstrap Buttons

Button Styles

Bootstrap provides different styles of buttons:

Basic Default Primary Success Info Warning Danger Link

To achieve the button styles above, Bootstrap has the following classes:

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

The following example shows the code for the different button styles:

Example

```html
<button type="button" class="btn">Basic</button>
<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>


<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"></script>
</head>
<body>

<div class="container">
  <h2>Button Styles</h2>
  <button type="button" class="btn">Basic</button>
  <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>

</body>
</html>
```

Output

:

Bootstrap Button Groups

Button Groups

Bootstrap allows you to group a series of buttons together (on a single line) in a button group:

AppleSamsungSony

Use a `<div>` element with class `.btn-group` to create a button group:

```
<div class="btn-group">
  <button type="button" class="btn btn-primary">Apple</button>
  <button type="button" class="btn btn-primary">Samsung</button>
  <button type="button" class="btn btn-primary">Sony</button>
</div>
```

Output:
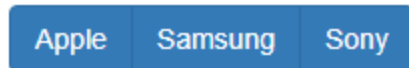
Bootstrap Glyphicons

Glyphicons

Bootstrap provides 260 glyphicons from the [Glyphicons](#) Halflings set.

Glyphicons can be used in text, buttons, toolbars, navigation, forms, etc.

Here are some examples of glyphicons:

Glyphicon Syntax

A glyphicon is inserted with the following syntax:

```
<span class="glyphicon glyphicon-name"></span>
```

The *name* part in the syntax above must be replaced with the proper name of the glyphicon.

Glyphicon Example

The following example shows different ways to use glyphicons:

```html
<p>Envelope icon: <span class="glyphicon glyphicon-envelope"></span></p>
<p>Envelope icon as a link:
  <a href="#"><span class="glyphicon glyphicon-envelope"></span></a>
</p>
<p>Search icon: <span class="glyphicon glyphicon-search"></span></p>
<p>Search icon on a button:
  <button type="button" class="btn btn-default">
    <span class="glyphicon glyphicon-search"></span> Search
  </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>Print icon: <span class="glyphicon glyphicon-print"></span></p>
<p>Print icon on a styled link button:
  <a href="#" class="btn btn-success btn-lg">
    <span class="glyphicon glyphicon-print"></span> Print
  </a>
</p>
```

Output

Bootstrap Pagination

Basic Pagination

If you have a web site with lots of pages, you may wish to add some sort of pagination to each page.

A basic pagination in Bootstrap looks like this:

To create a basic pagination, add the `.pagination` class to an `<ul>` element:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css
">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></sc
ript>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"><
/script>
</head>
<body>

<div class="container">
  <h2>Pagination</h2>
  <p>The .pagination class provides pagination links:</p>
  <ul class="pagination">
    <li><a href="#">1</a></li>
    <li><a href="#">2</a></li>
    <li><a href="#">3</a></li>
    <li><a href="#">4</a></li>
    <li><a href="#">5</a></li>
  </ul>
</div>

</body>
</html>
```
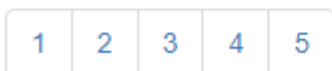
Output:

Pagination

The .pagination class provides pagination links:

| 1 | 2 | 3 | 4 | 5 |

Active State

The active state shows what is the current page:

| 1 | 2 | 3 | 4 | 5 |

Add class `.active` to let the user know which page he/she is on:

Example

```html
<ul class="pagination">
  <li><a href="#">1</a></li>
  <li class="active"><a href="#">2</a></li>
  <li><a href="#">3</a></li>
```
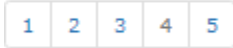
```
  <li><a href="#">4</a></li>
  <li><a href="#">5</a></li>
</ul>
```

Disabled State

A disabled link cannot be clicked:

| 1 | 2 | 3 | 4 | 5 |

Add class `.disabled` if a link for some reason is disabled:

```
<ul class="pagination">
  <li><a href="#">1</a></li>
  <li><a href="#">2</a></li>
  <li><a href="#">3</a></li>
  <li class="disabled"><a href="#">4</a></li>
  <li><a href="#">5</a></li>
</ul>
```
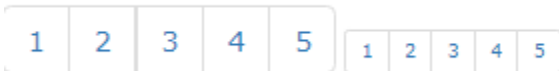
Pagination Sizing

Pagination blocks can also be sized to a larger size or a smaller size:

| 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 |

Add class `.pagination-lg` for larger blocks or `.pagination-sm` for smaller blocks:

```
<ul class="pagination pagination-lg">
  <li><a href="#">1</a></li>
  <li><a href="#">2</a></li>
  <li><a href="#">3</a></li>
  <li><a href="#">4</a></li>
  <li><a href="#">5</a></li>
</ul>

<ul class="pagination pagination-sm">
  <li><a href="#">1</a></li>
  <li><a href="#">2</a></li>
  <li><a href="#">3</a></li>
  <li><a href="#">4</a></li>
  <li><a href="#">5</a></li>
</ul>
```

Bootstrap Pager

What is Pager?

Pager is also a form of pagination (as described in the previous chapter).

Pager provides previous and next buttons (links).

To create previous/next buttons, add the `.pager` class to an `<ul>` element:

Example

```
<ul class="pager">
  <li><a href="#">Previous</a></li>
  <li><a href="#">Next</a></li>
</ul>
```

Result:

Previous   Next

Align Buttons

Use the `.previous` and `.next` classes to align each button to the sides of the page:

Example

```
<ul class="pager">
  <li class="previous"><a href="#">Previous</a></li>
  <li class="next"><a href="#">Next</a></li>
</ul>
```

Result:

Previous   Next