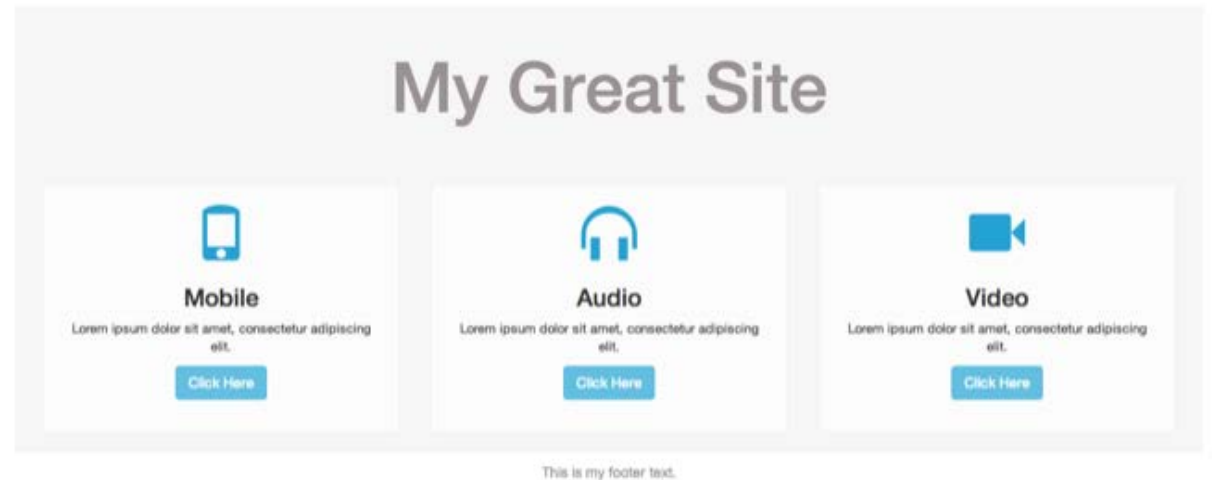# Front-end Development for Web & Mobile Workshop 10 Designing a Homepage in Bootstrap

1

What We Will Cover

- Adding **respond.js** and **html5shiv.js** to a document to ensure compatibility with older versions of Internet Explorer

- Adding jQuery

- Creating a custom CSS

- Implementing Glyphicons

- Using the **:hover** pseudo element

- Using HTML5 structural elements

- Bootstrap gutters

Designing a Homepage in Bootstrap

- This is the page we are going to create today.

Step 1: Designing a Homepage in Bootstrap

- Copy '**workshop_10.html**' into your Bootstrap site folder. This is comprised of a lot of code all of which is required for Bootstrap to display best.

- All of the code is commented.

- In addition to links to our Bootstrap CSS and JavaScript we also have links to other JavaScript files – HTML5 Shiv and Respond.js which are both required for older versions of IE (namely 8 and previous).

```html
<!doctype html>
<html lang="en"> <!--declares the default language of the page to be English-->
    <head>

        <meta charset="utf-8"><!--sets the character encoding for the Document-->
        <meta http-equiv="X-UA-Compatible" content="IE=edge"> <!--"X-UA-Compatible" sets the versio
IE that the page should be rendered as. The "IE=edge"content attribute tells it to display as the
highest version of IE possible.  -->
        <meta name="viewport" content="width=device-width, initial-scale=1"><!--Required for respon
layouts. Sets the initial scale of the webpage to 100% (so it's zoomed in to 100%) and sets the wi
 the page to the same width as the device being viewed on.-->

        <title>My Bootstrap Page</title>

        <!--Bootstrap CSS-->
        <link href="css/bootstrap.min.css" rel="stylesheet" type="text/css">

        <!-- HTML5 Shim and Respond.js IE8 support of HTML5 elements and media queries -->
        <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
        <!--[if lt IE 9]>
            <script src="https://oss.maxcdn.com/libs/html5shiv/3.7.0/html5shiv.js"></script>
            <script src="https://oss.maxcdn.com/libs/respond.js/1.4.2/respond.min.js"></script>
        <![endif]-->
    </head>
```

Step 2: Designing a Homepage in Bootstrap

- At the bottom we have links to the Bootstrap JavaScript and before that jQuery.

```
<!-- jQuery (necessary for Bootstrap's JavaScript plugins) -->
<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.11.0/jquery.min.js"></script>
<!-- Include all compiled plugins (below), or include individual files as needed -->
<script src="js/bootstrap.min.js"></script>
</body>
</html>
```

Tip: Designing a Homepage in Bootstrap

- The order of these is important so it is essential to ensure that jQuery comes **before** the Bootstrap. Why? Because the Bootstrap JavaScript refers to jQuery functions so it is important that jQuery comes first. Having both of these is essential to that Bootstrap's JavaScript plugins will work.

- You will notice also that the JavaScript has been moved down before the closing **</body>** tag. Since this JavaScript is required for interaction and not essential for the page to initially display, why hold the page loading waiting for these to load? Let the page load and then let the JavaScript load.

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Tip: Designing a Homepage in Bootstrap

- You might also notice that Respond.js, HTML5Shiv.js and the jQuery files are not located on our local machines. Instead we are linking to files on the **CDN** (Content Delivery Network) servers. The benefits of this is that if the user has previously visited a site that has these files hosted in this way, those will be cashed by the user's browser so not require a further download.

- The downside is that if the CDN is unavailable your page will not load correctly. There are ways to protect against this which we will touch on later.

Step 3: Designing a Homepage in Bootstrap

- Create a blank CSS file

- Save the file into your **css** folder (with the other bootstrap CSS files) as **custom.css**.

Step 4: Designing a Homepage in Bootstrap

- Below the Bootstrap CSS, link to the Custom CSS file you just created (you can just copy and paste the line below it and change the name of the file).

- It is very important that the **custom.css** file comes **after** the Bootstrap CSS file.

```
<title>My Bootstrap Page</title>

<link href="css/bootstrap.min.css" rel="stylesheet" type="text/css"> <!--Bootstrap CSS-->
<link href="css/custom.css" rel="stylesheet" type="text/css"><!--Custom CSS-->
```

Step 5: Designing a Homepage in Bootstrap

- In the Custom CSS set the background colour of the body to *#F6F6F6*.

```
@charset "UTF-8";
/* My Custom CSS */


body {
    background:#F6F6F6;


}
```

Step 6: Designing a Homepage in Bootstrap

- In the Add a **<div>** with a class of **"container"** after the opening **<body>** tag.   In order to keep a track of where divs are closing, it is advisable to add a comment afterwards to denote the ending.

- CSS set the background colour of the body to ***#F6F6F6.***

```
<body>

<div class="container">



</div><!--end container-->
```

Step 7: Designing a Homepage in Bootstrap

- After the opening container **<div>** add another **<div>** with the class **"row"**.

- Add a comment after the row ends.

```
<div class="container">

    <div class="row">



</div><!--end row 1 -->
```

Step 8: Designing a Homepage in Bootstrap

- Copy the row **<div>** and paste it twice below. These are now rows two and three.

Step 9: Designing a Homepage in Bootstrap

- Inside the first row we are are going to add a **<header>** (one of the new HTML5 structural elements) with a class of **"col-md-12".**

```
<div class="row">

    <header class="col-md-12">
     <h1>My Great Site</h1>
    </header>

</div><!--end row 1 -->
```
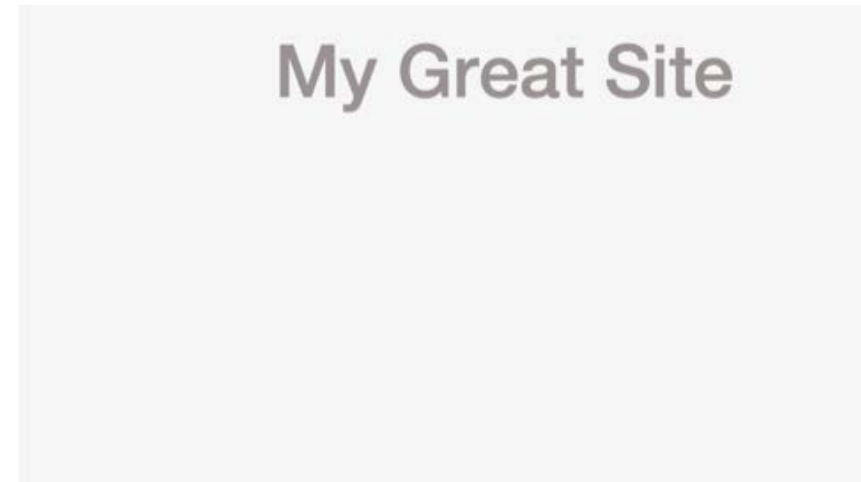
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Step 10: Designing a Homepage in Bootstrap

- After the body element style add styles, for the **<header>** element and the **<h1>** element contained within it.

```
body {
    background:#F6F6F6;
}

header {
    height:200px;
    margin: 0 0 20px 0;
    padding:30px;
}

header h1 {
    color:#9A9292;
    font-size:500%;
    text-align:center;
}
```
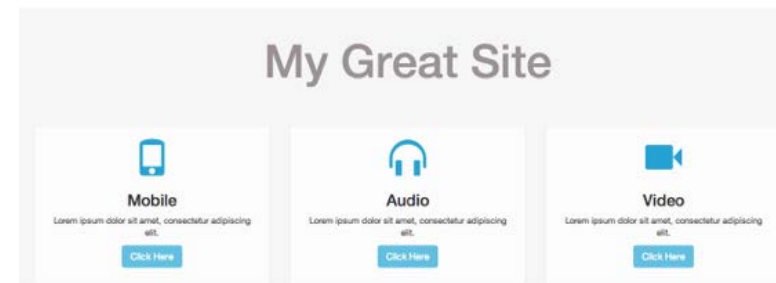
Step 11: Designing a Homepage in Bootstrap

- Previewing in the browser, your page should look as it does to the right.

My Great Site

Step 13: Designing a Homepage in Bootstrap

- Between the opening and closing **<div>** tags for the second row we are going to add a **<section>** element (again, another HTML5 structural element) with a class of **"col-md-4".**

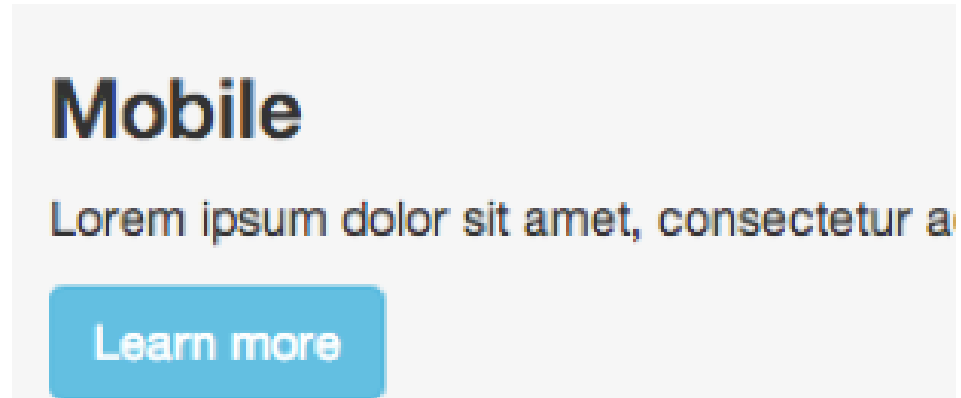- These are going to make up the boxes below the header.

Step 14: Designing a Homepage in Bootstrap

- Inside of this add a **<h3>** element with the text 'Mobile' inside.

- I am also going to add a line of [Lorem ipsum](#) text inside a **<p>** tag.

```
<section class="col-md-4">

        <h3>Mobile</h3>
        <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.</p>
    |

</section>
```

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Step 15: Designing a Homepage in Bootstrap

- After that, add a button with the class **"btn"** which makes very minimal style changes. In addition add another class – **"btn-info".** Add the text *Learn more* between the opening and closing tags.

- Previewing in the browser shows us how things are looking. As we can see the *Learn more* button is now styled.

Mobile

Lorem ipsum dolor sit amet, consectetur a

Learn more

Step 15: Designing a Homepage in Bootstrap

- Next, we want to style the section element so let us add a custom


```
<section class="col-md-4 box">

        <h3>Mobile</h3>
        <p>Lorem ipsum dolor sit amet, consectetur
        <button class="btn btn-info">Learn more </
</section>
```
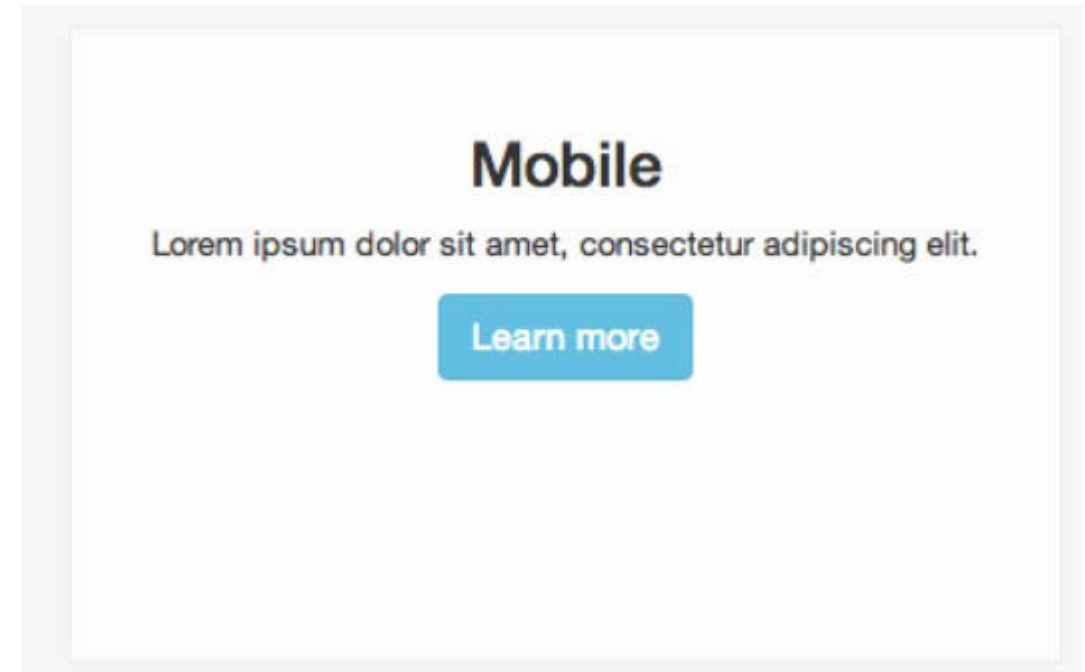
Step 16: Designing a Homepage in Bootstrap

- Back in the *custom.css*, add styles to the **box** class. Here, we are going to add styles that will change the background colour, add padding and margin and a border, and determine the height of the box.

- Save the CSS.

```css
.box {
    background:#FCFCFC;
    padding:20px;
    margin: 0 0 20px 0;
    border: 1px solid #EEEEEE;
    height: 250px;
    text-align:center;
}

.box p {
    font-size: .9em;
}
```

Step 17: Designing a Homepage in Bootstrap

- Back in the browser we should see that the page is beginning to take shape.
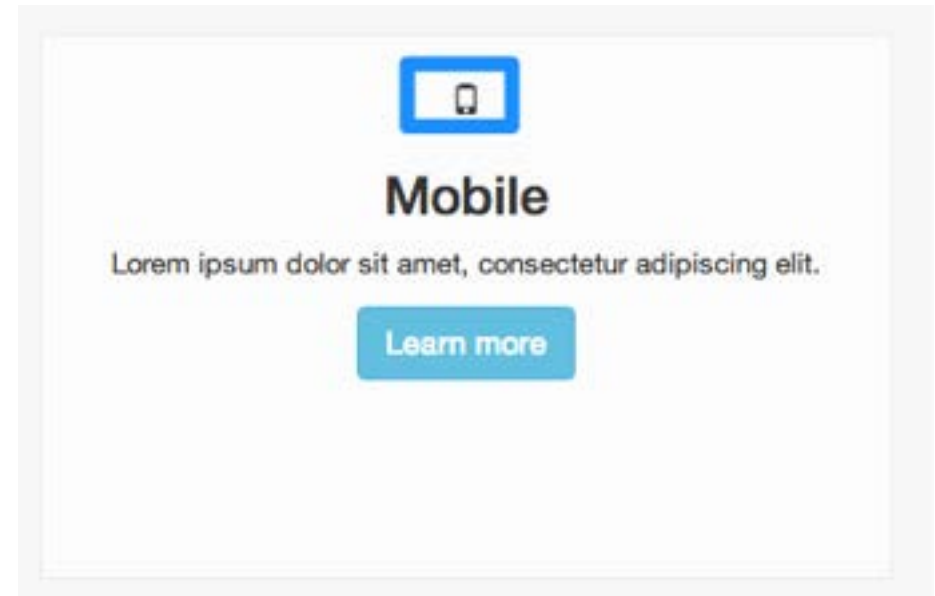
Step 18: Designing a Homepage in Bootstrap

- Back in Back in our HTML we are going to add an icon above the text.

- To do this we can add a **<span>** tag with the classes **"glyphicon"** and **"glyphicon-phone"**

- In the browser we should see that the page is beginning to take shape.


```
<span class="glyphicon glyphicon-phone"></span>
<h3>Mobile</h3>
<p>Lorem ipsum dolor sit amet, consectetur adipiscing
<button class="btn btn-info">Learn more</button>
```

Step 19: Designing a Homepage in Bootstrap

- Now back in the browser we can see that the phone icon has been added though it is very small.

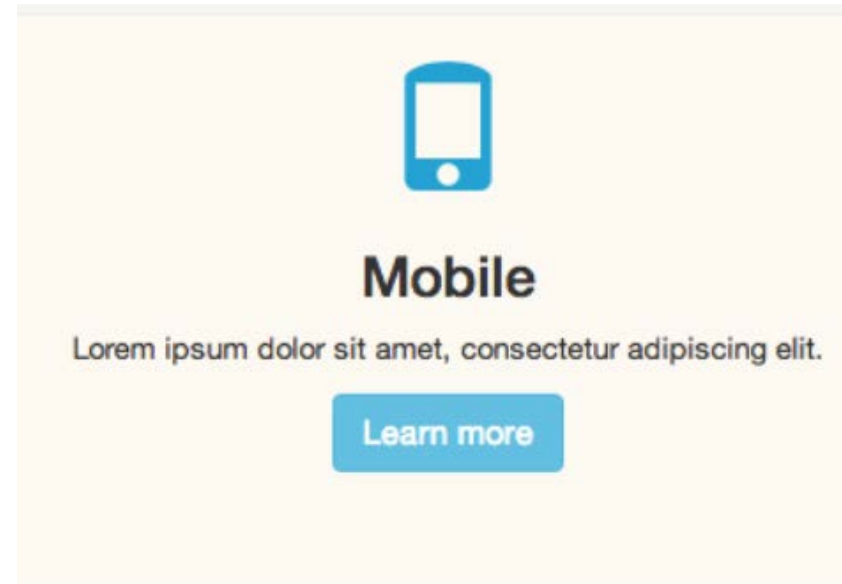- Next up, we want to style it.

Step 20: Designing a Homepage in Bootstrap

- Now We will target our element with the CSS selector **.box.glyphicon** and set the **font-size** (since, remember, that our icons are font based) and **colour** properties.

Step 21: Designing a Homepage in Bootstrap

- Returning to the browser and refreshing, we will now see that the phone icon has increased in size and changed colour.

Step 22: Designing a Homepage in Bootstrap

- Next we can add a *hover pseudo element* that will subtly change the background colour when the mouse hovers over the box.


```
font-size:4em;
color:#05A3CF;
}

.box:hover {
    background:#FDF9F3;
}
```

Step 23: Designing a Homepage in Bootstrap

- Paste the **<section>** element twice.


```
<div class="row">

<section class="col-md-4 box">

        <span class="glyphicon glyphicon-phone"></span>
        <h3>Mobile</h3>
        <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.</p>
        <button class="btn btn-info">Learn more</button>

</section>

<section class="col-md-4 box">

        <span class="glyphicon glyphicon-phone"></span>
        <h3>Mobile</h3>
        <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.</p>
        <button class="btn btn-info">Learn more</button>

</section>

<section class="col-md-4 box">

        <span class="glyphicon glyphicon-phone"></span>
        <h3>Mobile</h3>
        <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.</p>
        <button class="btn btn-info">Learn more</button>

</section>
```

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Step 24: Designing a Homepage in Bootstrap

- In the second **<section>** element change the glyphicon to **"glyphicon-facetime-video".**

```html
<section class="col-md-4 box">

    <span class="glyphicon glyphicon-phone"></span>
    <h3>Mobile</h3>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.</p>
    <button class="btn btn-info">Learn more</button>

</section>

<section class="col-md-4 box">

    <span class="glyphicon glyphicon-facetime-video"></span>
    <h3>Mobile</h3>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.</p>
    <button class="btn btn-info">Learn more</button>

</section>

<section class="col-md-4 box">

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

Step 25: Designing a Homepage in Bootstrap

- Change the **<h3>** heading to Video.


```
</section>

<section class="col-md-4 box">

        <span class="glyphicon glyphicon-facetime
        <h3>Video</h3>
        <p>Lorem ipsum dolor sit amet, consectetu
        <button class="btn btn-info">Learn more</

</section>
```

Step 26: Designing a Homepage in Bootstrap

- In the last **<section>** element change the class to **"glyphicon-headphones"** and the **<h3>** heading to Audio.


```
<h3>Video</h3>
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.</p>
<button class="btn btn-info">Learn more</button>

</section>

<section class="col-md-4 box">

    <span class="glyphicon glyphicon-headphones"></span>
    <h3>Audio</h3>
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing elit.</p>
    <button class="btn btn-info">Learn more</button>

</section>
```

Designing a Homepage in Bootstrap

- Previewing in the browser will show us how the page looks now.