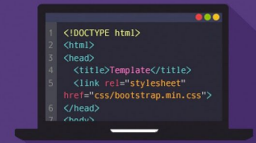**WhiteHat Jr**
Live Online Coding for Kids

Capstone Class: School Website

Bootstrap

What is our GOAL for this MODULE?

We learned to enhance the e-portfolio website by adding a responsive blog to it while applying bootstrap classes to all the elements of the website thus developing advanced UX design skills.

What did we ACHIEVE in the class TODAY?

- Developed a blog with bootstrap design classes

Which CONCEPTS/ CODING BLOCKS did we cover today?

- Build Book Section - last page of blog
- List of Books
- Concept of popup box

How did we DO the activities?

In the book section there are few sayings of some successful people. In the list of books section some books are displayed. When each one is clicked, a pop-up opens. This popup contains the image, information of the book and link to buy the book.

Continue coding in index.html file after the environment news section.

Books Section

Heading of the book section.

1. Code:

```html
<div class="page-header col-lg-12 col-md-12 col-sm-12 col-xs-12" id="books">
    <h2 class="text-capitalize ">Books</h2>
</div>
```

- We are putting the header inside a div.
- **class="page-header"**, this is a Bootstrap class which adds
  - **padding-bottom: 9px;**
  - **margin: 40px 0 20px;**
  - **border-bottom: 1px solid #eee;**
  - This class gives div padding and margin for better alignment and **border-bottom: 1px solid #eee;** for a good look and feel at the bottom of the div.

2. We want this div to be 100% width across all screen resolution.

- **col-lg-12** - this means that in the screen size 1200px and more the width of this div will be almost **100%** of the screen
  - (100 / 12 = 8.33) 100 is the size of the screen and 12 is the total column used by bootstrap.
  - (8.33*12 = 99.96) 8.33 is the value of 1 column, 12 is the number of the column we have assigned to this div [col-lg-**12**]

- **col-md-12** - this means that in the screen size between 1200px to 992px the width of this div will be almost **100%** of the screen
  - (100 / 12 = 8.33) 100 is the size of the screen and 12 is the total column used by bootstrap.
  - (8.33*12 = 99.96%) 8.33 is the value of 1 column, 12 is the number of the column we have assigned to this div [col-md-**12**]

- **col-sm-12** -   - this means that in the screen size between 992px to 768px the width of this div will be almost **100%** of the screen
  - (100 / 12 = 8.33) 100 is the size of the screen and 12 is the total column used by bootstrap.
  - (8.33*12 = 99.96%) 8.33 is the value of 1 column, 12 is the number of the column we have assigned to this div [col-sm-**12**]

- **col-xs-12** - this means that in the screen size between 786px to 0px the width of this div will be almost **100%** of the screen
  - (100 / 12 = 8.33) 100 is the size of the screen and 12 is the total column used by bootstrap.
  - (8.33*12 = 99.96%) 8.33 is the value of 1 column, 12 is the number of the column we have assigned to this div [col-xs-**12**]

- **id="books"**, we have given this div an identification using id, which is called inside the menu item->anchor tag.
  - Inside this div, we have an **h2 tag** that contains the heading of the book section.
  - h2 tag has a **class="text-capitalize"** which is a Bootstrap class. This class **capitalizes** the first letter of every word.

List Of Book Section

Heading - List of books section

1. Code:

```
<div class="page-header col-lg-12 col-md-12 col-sm-12 col-xs-12">
    <h2 class="text-capitalize ">List of Books</h2>
</div>
```

- We are putting the header inside a div.
- **class="page-header"**, this is a Bootstrap class which adds
  - **padding-bottom: 9px;**
  - **margin: 40px 0 20px;**
  - **border-bottom: 1px solid #eee;**
  - This class gives div padding and margin for better alignment and **border-bottom: 1px solid #eee;** for a good look and feel at the bottom of the div.

2. We want this div to be 100% width across all screen resolution

- **col-lg-12** - this means that in the screen size 1200px and more the width of this div will be almost **100%** of the screen
  - (100 / 12 = 8.33) 100 is the size of the screen and 12 is the total column used by bootstrap.
  - (8.33*12 = 99.96) 8.33 is the value of 1 column, 12 is the number of the column we have assigned to this div [col-lg-**12**]

- **col-md-12** - this means that in the screen size between 1200px to 992px the width of this div will be almost **100%** of the screen
  - (100 / 12 = 8.33) 100 is the size of the screen and 12 is the total column used by bootstrap.
  - (8.33*12 = 99.96%) 8.33 is the value of 1 column, 12 is the number of the column we have assigned to this div [col-md-**12**]

- **col-sm-12** -   - this means that in the screen size between 992px to 768px the width of this div will be almost **100%** of the screen
  - (100 / 12 = 8.33) 100 is the size of the screen and 12 is the total column used by bootstrap.
  - (8.33*12 = 99.96%) 8.33 is the value of 1 column, 12 is the number of the column we have assigned to this div [col-sm-**12**]

- **col-xs-12** - this means that in the screen size between 786px to 0px the width of this div will be almost **100%** of the screen
  - (100 / 12 = 8.33) 100 is the size of the screen and 12 is the total column used by bootstrap.

○ (8.33*12 = 99.96%) 8.33 is the value of 1 column, 12 is the number of the column we have assigned to this div [col-xs-**12**]

● Inside this div, we have an **h2 tag** that contains the heading of the list of books section.
  ○ h2 tag has a **class="text-capitalize"** which is a Bootstrap class. This class **capitalizes** the first letter of every word.

First Book

HTML and CSS code for listing books

1. Code for listing first book

```
<div class="col-lg-3 col-md-3 col-sm-3 col-xs-6 book"  data-toggle="modal" data-
target="#First_Space_Encyclopaedia">
   <img src="s1.jpg" class="img-responsive">
   <hr >
   <p class="text-primary">First Space Encyclopaedia</p>
</div>
```

2. We have a div with some bootstrap classes. This div will hold the book name.

● **col-lg-3(24.99%** of the screen**):** because we want that on screen more than 1200px, the image should be small so that the other three images of books can also fit in the same line.
● **col-lg-3** means that on the screen size 1200px and more the width of this **p tag** will be **24.99%** of the screen.
  ○ (100 / 12 = 8.33) where, 100 is the size of the screen and 12 is the total number of columns used by bootstrap.
  ○ (8.33*3 = **24.99%**) where, 8.33 is the value of 1 column, 3 is the number of columns we have assigned to this **p tag** [col-lg-3].

● **col-md-3(24.99%** of the screen**):** because we want that on screen between 1200px to 992px, the image should be small so that the other three images of books can also fit in the same line.
● **col-md-3** means that on the screen size between 1200px to 992px, the width of this **p tag** will be **24.99%** of the screen.
  ○ (100 / 12 = 8.33) where, 100 is the size of the screen and 12 is the total number of columns used by bootstrap.
  ○ (8.33*3 = **24.99%**) where, 8.33 is the value of 1 column, 3 is the number of columns we have assigned to this **p tag** [col-md-**7**].

● **col-sm-3(24.99%** of the screen**):** because we want that on screen between 992px to 768px, the image should be small so that the other three images of books can also fit in the same line.

- **col-sm-3** means that on the screen size between 992px to 768px, the width of this **p tag** will be **24.99%** of the screen.
  - (100 / 12 = 8.33) where, 100 is the size of the screen and 12 is the total number of columns used by bootstrap.
  - (8.33*3 = **24.99%**) where, 8.33 is the value of 1 column, 3 is the number of columns we have assigned to this **p tag** [col-sm-**3**].

- **col-xs-6(49.98%** of the screen**):** so on screen between 768px and 0px, one more image of the book can fit on the same line.
- **col-xs-6** means that on the screen size between 786px to 0px, the width of this **p tag** will be **49.98%** of the screen.
  - (100 / 12 = 8.33) where, 100 is the size of the screen and 12 is the total number of columns used by bootstrap.
  - (8.33*6 = **49.98**%) where, 8.33 is the value of 1 column, 6 is the number of columns we have assigned to this **p tag** [col-xs-**6**].

```
<div class="col-lg-3 col-md-3 col-sm-3 col-xs-6 book"  data-toggle="modal" data-
target="#First_Space_Encyclopaedia">
```

- This div has **data-target="#First_Space_Encyclopaedia".** This will contain the id of the popup to be opened when this div is clicked.
- This div has **data-toggle="modal"** which says that if this div is clicked, open the element which has the same **id** as **this div data-target.**

3. CSS of **book** class:

```
.book
{
    cursor: pointer;
}
```

- This means when we take the mouse pointer on the book, the mouse cursor will change to a pointer.

4. Inside this div we have our image of the book with bootstrap class **img-responsive**.

```
<div class="col-lg-3 col-md-3 col-sm-3 col-xs-6 book"  data-toggle="modal" data-
target="#First_Space_Encyclopaedia">
    <img src="s1.jpg" class="img-responsive">
```

5. Then we have a **hr tag** for a line effect after image.

```
<div class="col-lg-3 col-md-3 col-sm-3 col-xs-6 book"  data-toggle="modal" data-
target="#First_Space_Encyclopaedia">
  <img src="s1.jpg" class="img-responsive">
  <hr >
```

6. CSS of **hr:** We are giving margin-top: 10px.

```
.book hr
{
    margin-bottom: 10px;
}
```

7. Then the name of the book is wrapped inside **p tag.**

```
  <hr >
  <p class="text-primary">First Space Encyclopaedia</p>
```

● This has bootstrap class:
  ○ **text-primary -** It gives a light blue color to the text.

This completes the listing of the first book.

Now let's write code for the first book popup.

1. Code first book popup:

```
<!-- Modal -->
<div class="modal fade" id="First_Space_Encyclopaedia">
  <div class="modal-dialog">
    <!-- Modal content-->
    <div class="modal-content" >
      <div class="modal-header">
        <button type="button" class="close" data-dismiss="modal">&times;</button>
        <h4 class="modal-title">First Space Encyclopaedia</h4>
      </div>

      <div class="modal-body">
        <img src="s1.jpg" class="img-responsive img_modal">
        <p class="p_modal">Zoom off into the galaxy and investigate all the planets, from
        Earth to Mars with First Space Encyclopaedia. Packed full of stunning photography,
        quizzes and amazing facts, children will become space experts in no time. Covering
        everything from observatories and rockets, to the solar system and the death of
        stars, children will discover all about space and space travel.<br>
        <a href="https://www.amazon.in/First-Space-Encyclopaedia-
        DK/dp/0241293421/ref=sr_1_6?
        crid=176WU3JFDK2JP&keywords=books+on+space+for+kids&qid=1575444723&sprefix=books+o
        n%2Caps%2C285&sr=8-6"><b>BEST BUY LINK</b></a>
         </p>
      </div>
    </div>
  </div>
</div>
```

- We have a div which holds the modal:

```
<!-- Modal -->
<div class="modal fade" id="First_Space_Encyclopaedia">
  <div class="modal-dialog">
```

- It has classes:
  - **modal -** This class adds the alignment to the popup.
  - **fade -** This class adds fade in and fade out effect to the pop-up. When you click on the book, there is a fade in effect when popup opens and fade-out effect when the pop-up closes.
- This pop-up div has the identification **id="First_Space_Encyclopaedia".**

```
<!-- Modal -->
<div class="modal fade" id="First_Space_Encyclopaedia">
  <div class="modal-dialog">
    <!-- Modal content-->
    <div class="modal-content" >
      <div class="modal-header">
```

- Inside this div:
  - There is a div with class **modal-dialog**. This class adds padding to the popup box.
  - There is a div with class **modal-content**. This class adds background-color and border-radius.

2. In addition we have added margin-top to this class in CSS. Because we want to have some margin-top for this popup.

```css
.modal-content
{
    margin-top: 100px;
}
```

- Inside this div we have:

```html
<!-- Modal -->
<div class="modal fade" id="First_Space_Encyclopaedia">
    <div class="modal-dialog">
        <!-- Modal content-->
        <div class="modal-content" >
            <div class="modal-header">
```

- Div with class **modal-header**, this class adds padding and border-bottom to the heading.
- Inside heading we will have a close button of popup and the name of the book.

```html
<button type="button" class="close" data-dismiss="modal">&times;</button>
```

- We have a button with class="**close**", this style the close button. It has **data-dismiss="modal"** which closes the popup when clicked on the button.

- It has **×** which gets the cross icon of the button like this -

- We have the name of the book wrapped inside **h4 tag**

```html
<h4 class="modal-title">First Space Encyclopaedia</h4>
```

  ○ It has a class **modal-title**, it removes the additional margin.

```html
<div class="modal-body">
```

- Now we have a div with class **modal-body,** this class adds padding of 15px to the body of the popup.
  ○ Inside the body we have the image of the book, description of the book and amazon link to buy the book.
  ○ Then inside the above div, we have Image of the book.

```
<img src="s1.jpg" class="img-responsive img_modal">
```

- It has **img-responsive**, which we already discussed.
- We have added our class img_modal to it.

3. CSS of img_modal:

```
.img_modal
{
    display: inline-block;
}
```

- We are setting **display:inline-block** because we want an image and the description of the book should be on the same line.

```
<div class="modal-body">
  <img src="s1.jpg" class="img-responsive img_modal">
  <p class="p_modal">Zoom off into the galaxy and investigate all the planets, from
```

4. Then we have a **p tag** which holds the description of the book.We have given it a class **p_modal**

5. CSS of p_modal: We are setting margin-top to **p tag.**

```
.p_modal
{
        margin-top: 10px;
}
```

What's NEXT?

We will learn the concepts of Objects and JSON and apply Application Programming Interface (API) to further our knowledge of data structures and develop a live weather app.

EXTEND YOUR KNOWLEDGE

Here are Few Best Reference Links we complied to extend your knowledge about the concept we learnt today in the class. This will help you become pro at coding and creating industry grade tech products

Short Videos: Watch these Short Videos to Understand the Class Concepts Applied in Real World Applications.

1. Bootstrap Modal Popup: https://www.youtube.com/watch?v=bT9Tta7xWdo
2. All Bootstrap Class:https://www.youtube.com/watch?v=BwbDxdOEJh0
3. Badges and Labels: https://www.youtube.com/watch?v=WFTMGcE732w

Coding Playground: Try Out These code examples yourself to deepen your knowledge

1. **Bootstrap Modals** w3schools.com :
   https://www.w3schools.com/bootstrap/bootstrap_modal.asp

2. **Bootstrap Grid** w3schools.com :
   https://www.w3schools.com/bootstrap/bootstrap_grid_small.asp

3. **Bootstrap Grid** w3schools.com :
   https://www.w3schools.com/bootstrap/bootstrap_grid_medium.asp

4. **Bootstrap Grid** w3schools.com :
   https://www.w3schools.com/bootstrap/bootstrap_grid_large.asp

5. **Bootstrap Badges** w3schools.com :
   https://www.w3schools.com/bootstrap/bootstrap_badges_labels.asp