

Topic	Capstone Class: School Website	
Class Description	Kids learn to make the e-portfolio website responsive while applying bootstrap classes to all the elements of the website thus developing advanced UX Design Skills. Students learn to add a book list and pop-ups to complete the book section in the blog page.	
Class	ADV-C71	
Class time	55 mins	
Goal	<ul style="list-style-type: none"> Develop a blog with bootstrap design classes. 	
Resources Required	<ul style="list-style-type: none"> Teacher Resources <ul style="list-style-type: none"> Use gmail login credentials Earphone with mic Notepad and Pen Student Resources <ul style="list-style-type: none"> Use gmail login credentials Earphone with mic (optional) Notepad and Pen 	
Class structure	Warm Up Teacher-Led Activity Student-Led Activity Wrap Up	5 Mins 15 Mins 35 Mins 5 Mins
Class Steps	Say	Do
Step 1: Warm up (5 mins)	Welcome to the Capstone Class. Well, it's time to raise the bar and showcase something special. Do you remember what we are going to build today?	Ask the student to get into Fullscreen mode.

	<p>We will add book list and pop-ups to complete the book section of the blog page.</p> <p>In the last few class, we have been discussing and building our blog. We are using Bootstrap for the responsive layout.</p> <p>We have already created the menu bar, travel section, movie review section, the environment news, and footer.</p> <p>In today's class, we will build the last part of the page, which is the book section.</p> <p>In the 21st century the knowledge is increasing at an astronomical speed. To be able to keep up with what is happening around us, habit of READING is a must. Read books, read news, read magazines and gain new insights!</p>	
Teacher Initiates Screen Share		
<p>Step 2: Teacher-Led Activity (15 mins)</p>	<p>Today we will add a book section and list of books section as we see here on the website.</p> <p>In the book section there are few sayings of some successful people.</p> <p>In the list of books section some books are displayed. When each one</p>	<p>Run Teacher-Activity 1 and show the website on mobile (for this show on the laptop only by changing the screen resolution->doing inspect element discussed in class 68) as well as on the desktop.</p> <p>Teacher Activity 2 source</p>

	is clicked, a pop-up opens. This popup contains the image, information of the book and link to buy the book. So let's begin!	code for index.html and style.css Refer to Teacher Activity 3 for CODE DIAGRAM
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Let's start with adding the book section and list of books after the movie review section.

Continue coding in index.html file after Environment section.

NOTE - Use the same HTML and CSS files we have made in the previous classes.

NOTE - Ask the student to copy and paste the bootstrap classes from [Student-Activity-1 bootstrap classes](#) wherever bootstrap classes are used in the code. This will save time if the kids are slow in typing.

NOTE - Ask the student to do copy paste if any code is repeated.

Let's start with adding the list of books section after the environment section. Continue coding in index.html file after environment section.

★ List Of Book Section

Refer [Teacher Activity-3 Section 3](#) for Visual presentation.

Heading of 'List of books section':

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>
```

NOTE - Copy the header code from the environment section and paste in the list of book section and just change the id and the text inside h2 tag.

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 bottom border of 1 px for a good look and feel at the bottom of the div.

We have already discussed the concept of **col-lg**, **col-md**, **col-sm**, **col-xs** and **12** columns of bootstrap.

NOTE - Quickly go through these concepts (col-lg, etc.) as we have discussed them many times.

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

- **col-lg-12** - This means that on the screen size 1200px and more, the width of this div will be almost **100%** 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.
($8.33 * 12 = 99.96$) where, 8.33 is the value of 1 column, 12 is the number of columns we have assigned to this div [**col-lg-12**].
- **col-md-12** - This means that on the screen size between 1200px to 992px, the width of this div will be almost **100%** 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.
($8.33 * 12 = 99.96\%$) where, 8.33 is the value of 1 column, 12 is the number of columns we have assigned to this div [**col-md-12**].
- **col-sm-12** - This means that on the screen size between 992px to 768px, the width of this div will be almost **100%** 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.
($8.33 * 12 = 99.96\%$) where, 8.33 is the value of 1 column, 12 is the number of columns we have assigned to this div [**col-sm-12**].
- **col-xs-12** - This means that on the screen size between 768px to 0px, the width of this div will be almost **100%** 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.

($8.33 \times 12 = 99.96\%$) where, 8.33 is the value of 1 column, 12 is the number of columns 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 bootstrap **class="text-capitalize"**. This class **capitalizes** the first letter of every word.

1. List Of Books section. Refer [Teacher Activity-3 Section 4](#) for Visual presentation

Adding First Book

We saw on the blog page ([Teacher-Activity-1](#)) that we have images of books and when you click on each one opens a popup.

So first we will write HTML and CSS code for listing books.

NOTE - Ask the student to use the s1 image from [Student-Activity-6](#) for now. After completing the class the student can replace the image as per his/her choice.

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

***NOTE - Ask the student to copy and paste the bootstrap classes from [Student-Activity-1 bootstrap classes](#) wherever bootstrap classes are used in the code. This will save time if the kids are slow in typing.**

Here, we have a div with some bootstrap classes. This div will hold the book name.

NOTE - Quickly go through these concepts (col-lg, etc.) as we have discussed them many times.

- **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-3].

- **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 768px 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**.

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.

1. Inside this div we have our image of the book with bootstrap class **img-responsive**, which we have already discussed.

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

2. 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">  
    
  <hr >
```

CSS of hr:

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

We are giving margin-top: 10px.(Ask the student what this will do to the output.)

3. 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.

Great! We have completed listing the first book!

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

NOTE - Ask the student to use the s1 image from Student-Activity-6 for now. After completing the class the student can replace the image as per his/her choice. Ask the student to put only "<https://www.amazon.in/>" in the link for the book purchase. After completing the class the student can replace the link as per his/her choice

Code for 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">
        
        <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&prefix=books+o
        n%2Caps%2C285&sr=8-6"><b>BEST BUY LINK</b></a>
        </p>
      </div>
    </div>
  </div>
</div>

```

***NOTE - Ask the student to copy and paste the bootstrap classes from [Student-Activity-1 bootstrap classes](#) wherever bootstrap classes are used in the code. This will save time if the kids are slow in typing.**

First 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.

Run [Teacher-activity-1](#) and show the effect.

This pop-up div has the identification **id="First_Space_Encyclopaedia"**.

Inside this div:

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

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.

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

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

Inside this div we have -

```
<!-- 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.

→ We have a button

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

with class="close", this style the close button. It has **data-dismiss="modal"** which closes the popup when clicked on the button. And it have **×** which gets the cross icon

of the button this -



→ We have the name of the book wrapped inside **h4 tag**,

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

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

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

1. 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

```

```

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

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">
    
    <p class="p_modal">Zoom off into the galaxy and investigate all the planets, from
```

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

CSS of **p_modal**




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

We are setting margin-top to **p tag**.

Great! We have listed our first book and its popup.

Teacher Stops Screen Share		
	Now it is your turn.	
<ul style="list-style-type: none"> • Ask Student to press ESC key to come back to panel • Guide Student to start Screen Share • Teacher gets into Fullscreen 		
Step 3: Student-Led Activity (35 mins)	<p>→ Use the same HTML and CSS files we had made in the previous classes.</p> <p>→ Let's start with adding the book section and list of book section after the movie review section.</p> <p>NOTE - Ask the student to copy and paste the bootstrap classes from Student-Activity-1 bootstrap classes wherever bootstrap classes are used in the code. This will save time if the kids are slow in typing.</p> <p>NOTE - Ask the student to do copy paste if anything code is repeated</p>	<p>Encourage and help the student to make a webpage like we just did in Teacher activity -1</p> <p>Student Activity 1- CODE DIAGRAM</p> <p>Student Activity 2-HTML REFERENCE</p> <p>Student Activity 3-CSS REFERENCE</p> <p>Student Activity 4-JS REFERENCE</p> <p>Student Activity 5-Bootstrap REFERENCE</p> <p>Student Activity 6 WEBSITE IMAGES</p> <p>Student Activity 7 REFERENCE FOR HOSTING A WEBSITE</p> <p>Encourage the student to design freely if time permits.</p>

	<p>Now lets upload all the files (index.html, style.css and all the images) to host your website on GitHub.</p> <p>The steps to host the website is mentioned in Student-Activity-7, copy the github and paste it in the Submit Link Field on the student panel and click Submit Button.</p> <p>Test your webapp using this link on your Phone.</p> <p>Congratulations! You have reached yet another milestone!</p> <p>In this Capstone project, you will have to practice and apply what you have learnt in the past few classes and continue designing the website for your school.</p>	<p>NOTE TEACHERS - First ask the student to host the website, the steps to host the website is mentioned in Student-Activity-7, and copy the github link and paste it in the Submit Link Field on the student panel and click Submit Button.</p> <p>Test the webapp using this link on your Phone.</p>
Teacher Initiates Screen Share		
<p>Step 5: Project Pointers and Cues (5 min)</p>	<p>Project Name: SCHOOL WEBSITE - 4</p> <p>Goal of the Project:</p> <p>Today, you continued to add more elements to the responsive website by applying bootstrap classes to all the elements of the website.</p> <p>In this project, you will have to practice and apply what you have learnt in the class and continue designing the website for your school.</p> <p>** This is a continuation of the projects 68, 69, and 70. Make sure that you have completed those</p>	

	<p>projects before attempting the project 71 **</p> <p>Story: St. Xavier's School is celebrating its 60th Anniversary. The school board has decided to change the look of the website so that the website can effectively communicate the school's vision, mission, qualities and the offerings to each of the stakeholders.</p> <p>I am very excited to see your school website and I know you will do really well.</p> <p>Good Luck!</p>	
Teacher Guides Student to Stop Screen Share		
<p>Step 4: Wrap-Up (5 mins)</p>	<p>You did great today as well. Great! You have two hats off.</p> <p>Let's revise,</p> <ol style="list-style-type: none"> 1. Explain the concept of col-lg, col-md, col-sm and col-xs. 2. Explain the 12 columns concept of bootstrap. what will be the percentage of col-lg-4? col-md-9? col-sm-6? col-xs-2? 3. Explain concept of popup box. 	<p>(Give at least 2 hats off) Press the Hats Off Icon for Creatively Solving Activities</p> <p></p> <p>Press the Hats Off Icon for Great Question</p> <p></p> <p>Press the Hats Off Icon for "Strong Concentration.."</p> <p></p>

<div style="text-align: center;"> Teacher Clicks ✕ End Class </div>		
<p>Additional Activities:</p> <p>★ Book Section Refer Teacher Activity-3 Section 1 for Visual presentation.</p> <p>Heading the book section: Add this section before the list of book section:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <pre><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></pre> </div> <p>Add this code given above before the following code:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <pre><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></pre> </div> <p>*NOTE - Ask the student to copy and paste the bootstrap classes from Student-Activity-1 bootstrap classes wherever bootstrap classes are used in the code. This will save time if the kids are slow in typing.</p> <p>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 bottom border of 1 px for a good look and feel at the bottom of the div.</p> <p>We have already discussed the concept of col-lg, col-md, col-sm, col-xs. And 12 columns of bootstrap.</p>		

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

- **col-lg-12** - This means that on the screen size 1200px and more, the width of this div will be almost **100%** 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.
($8.33 * 12 = 99.96$) where, 8.33 is the value of 1 column, 12 is the number of columns we have assigned to this div [col-lg-12].
- **col-md-12** - This means that on the screen size between 1200px to 992px, the width of this div will be almost **100%** 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.
($8.33 * 12 = 99.96\%$) where, 8.33 is the value of 1 column, 12 is the number of columns we have assigned to this div [col-md-12].
- **col-sm-12** - This means that on the screen size between 992px to 768px, the width of this div will be almost **100%** 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.
($8.33 * 12 = 99.96\%$) where, 8.33 is the value of 1 column, 12 is the number of columns we have assigned to this div [col-sm-12].
- **col-xs-12** - This means that on the screen size between 768px to 0px, the width of this div will be almost **100%** 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.
($8.33 * 12 = 99.96\%$) where, 8.33 is the value of 1 column, 12 is the number of columns we have assigned to this div [col-xs-12].

id="books" We have given this div an identification, 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"**, a bootstrap class that **capitalizes** the first letter of every word.

Books section: Refer [Student Activity-1 Section 2](#) for Visual presentation.

HTML CODE:

NOTE - Copy and paste the descriptions which are mentioned in [sup tag](#), and send on chat to the student. After the class the student can replace the description as per his/her choice.

Now we have the sayings of successful people.

The first saying is of Mr. Bill Gates.

```
<div class="col-lg-12 col-md-12 col-sm-12 col-xs-12">

  <h3>Bill Gates</h3>
  <h4>
    <mark class="header_entrepreneur">
      <i>
        <sup><i class="fa fa-quote-left"></i></sup>
        Reading is still the main way that I both learn new things and test my understanding.
        <sup><i class="fa fa-quote-right"></i></sup>
      </i>
    </mark>
  </h4>
</div>
```

***NOTE - Ask the student to copy and paste the bootstrap classes from [Student-Activity-1 bootstrap classes](#) wherever bootstrap classes are used in the code. This will save time if the kids are slow in typing.**

→ First, we have a div that holds everything of the book section. It has bootstrap classes **col-lg-12 col-md-12 col-sm-12 col-xs-12**.

We have discussed this earlier many times.

1. We have wrapped Bill Gates' name inside an **h3 tag**.
2. Then we have a **h4 tag** that will hold the quotes.
3. We have **sub tag** with **i tag** which gets the left Open Double Quote.
4. Then we have his Quote Statement.
5. Then again we have **sub tag** with **i tag** which gets the right Open Double Quote.

Create three more books and their pop-ups, everything will remain the same as book 1.
 Refer to [Student-Activity-1-Section-4](#)

Activity	Activity Name	Links
Teacher Activity 1	BLOG WEBSITE	https://jynyhy9vu5r8xz5zy0utww-on.driv.tw/www.blog.com/
Teacher Activity 2	SOURCE CODE	https://drive.google.com/open?id=16S3h1GoC0l7YnQLHjqjivhE7szkZfgAi
Teacher Activity 3	CODE DIAGRAM	https://docs.google.com/document/d/e/2PACX-1vTrHq1bYNtXeZrgaDxm0ZynzX5tndQgqu7iVdX3nX8uHHkminVw9CS2Jj3iHai4aGVmP4RZWkO8MRHY/pub
Student Activity 1	CODE DIAGRAM	https://docs.google.com/document/d/e/2PACX-1

		vTrHq1bYNtXeZrgaDxm0ZynzX5tndQgqu7iVdX3nX8uHHkminVw9CS2Jj3iHai4aGVmP4RZWkO8MRHY/pub
Student Activity 2	HTML Reference	https://www.w3schools.com/tags/default.asp
Student Activity 3	CSS Reference	https://www.w3schools.com/cssref/
Student Activity 4	JS reference	https://www.w3schools.com/jsref/jsref_reference.asp
Student Activity 5	Bootstrap reference	https://www.w3schools.com/bootstrap/
Student Activity 6	WEBSITE IMAGES	https://drive.google.com/drive/folders/1aD4FVzKTxlPaWowxM7gt8F-qbNGueorH?usp=sharing
Student Activity 7	REFERENCE FOR HOSTING A WEBSITE ON GITHUB	https://docs.google.com/document/d/e/2PACX-1vSALRoY8p7bVtXNfuKEOG3Bmp5lqkQCnUqpCSMTuHvSCa37BumNEdYgwXPDIC0LZmbPzq8Hg-6frES8/pub