NAME: Palak Davda. Name: Divya Govandi

Roll No :72 Roll No: 74

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BOOTSTRAP

**AIM: Design web pages introducing concepts like Bootstrap, downloading and installing Bootstrap.**

## A : GRID SYSTEM: Bootstrap Grid System

Bootstrap's grid system is built with flexbox and 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. The grid system is responsive, and the columns will re-arrange automatically depending on the screen size.Make sure that the sum adds up to 12 or fewer (it is not required that you use all 12 available columns).

The Bootstrap 4 grid system has five classes:

* .col- (extra small devices - screen width less than 576px)
* .col-sm- (small devices - screen width equal to or greater than 576px)
* .col-md- (medium devices - screen width equal to or greater than 768px)
* .col-lg- (large devices - screen width equal to or greater than 992px)
* .col-xl- (xlarge devices - screen width equal to or greater than 1200px)

BASIC STRUCTURE OF 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>  
  
<!-- Or let Bootstrap automatically handle the layout -->  
<div class="row">  
  <div class="col"></div>  
  <div class="col"></div>  
  <div class="col"></div>  
</div>

### **Offsetting columns:**

You can offset grid columns in two ways: our responsive. offset- grid classes and our margin utilities. Grid classes are sized to match columns while margins are more useful for quick layouts where the width of the offset is variable.

#### **Offset classes**

Move columns to the right using. Offset-md\* classes. These classes increase the left margin of a column by \* columns. For example, .offset-md-4 moves .col-md-4 over four columns.

## Nesting :

To nest your content with the default grid, add a new .row and set of .col-sm-\* columns within an existing .col-sm-\* column. Nested rows should include a set of columns that add up to 12 or fewer (it is not required that you use all 12 available columns).

## Borders

Use the border classes to add or remove borders from an element:

### Example:

<span class="border"></span>  
<span class="border border-0"></span>  
<span class="border border-top-0"></span>  
<span class="border border-right-0"></span>  
<span class="border border-bottom-0"></span>  
<span class="border border-left-0"></span>

## Float and Clear fix

Float an element to the right with the. float right class or to the left with .float-left, and clear floats with the.clearfix class:

### **Example**

<div class="clear fix">  
  <span class="float-left">Float left</span>  
  <span class="float-right">Float right</span>  
</div>

## Responsive Floats

Float an element to the left or to the right depending on screen width, with the responsive float classes (.float-\*-left|right - where \* is sm (>=576px), md (>=768px), lg (>=992px) or xl (>=1200px)):

## Center Align

Center an element with the .mx-auto class (adds margin-left and margin-right: auto):

## Width

Set the width of an element with the w-\* classes (.w-25,. w-50, .w-75, .w-100, .mw-100):

## Vertical Align

Use the align- classes to change the alignment of elements (only works on inline, inline-block, inline-table and table cell elements):

## Responsive Embeds

Create responsive video or slideshow embeds based on the width of the parent.

Add the .embed-responsive-item to any embed elements (like <iframe> or <video>) in a parent element with .embed-responsive and an aspect ratio of your choice:

## Visibility

Use the .visible or .invisible classes to control the visibility of elements. **Note:** These classes do not change the CSS display value. They only add visibility:visible or visibility:hidden:

CSS FOUNDATION:

**Typography**

## <h1> - <h6>

Bootstrap 4 styles HTML headings (<h1> to <h6>)  with a bolder font-weight and an increased font-size:

### **Example**

# **h1 Bootstrap heading (2.5rem = 40px)**

## h2 Bootstrap heading (2rem = 32px)

### **h3 Bootstrap heading (1.75rem = 28px)**

#### **h4 Bootstrap heading (1.5rem = 24px)**

##### **h5 Bootstrap heading (1.25rem = 20px)**

###### **h6 Bootstrap heading (1rem = 16px)**

## Display Headings

Display headings are used to stand out more than normal headings (larger font-size and lighter font-weight), and there are four classes to choose from: .display-1, .display-2, .display-3, .display-4

## <small>

In Bootstrap 4 the HTML <small> element is used to create a lighter, secondary text in any heading:

## <mark>

Bootstrap 4 will style the HTML <mark> element with a yellow background color and some padding:

## <abbr>

Bootstrap 4 will style the HTML <abbr> element with a dotted border bottom:

## <blockquote>

Add the .blockquote class to a <blockquote> when quoting blocks of content from another source:

Bootstrap table:

A basic Bootstrap 4 table has a light padding and horizontal dividers.

The .table class adds basic styling to a table

## Responsive Tables

The. table-responsive class creates a responsive table: an horizontal scrollbar is added to the table on screens that are less than 992px wide (if needed). When viewing on anything larger than 992px wide, there is no difference:

## Button Styles

Bootstrap 4 provides different styles of buttons:

Basic Primary Secondary Success Info Warning Danger Dark Light.

### <button type="button" class="btn">Basic</button> <button type="button" class="btn btn-primary">Primary</button> <button type="button" class="btn btn-secondary">Secondary</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-dark">Dark</button> <button type="button" class="btn btn-light">Light</button> <button type="button" class="btn btn-link">Link</button>

Basic Pagination

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

* [Previous](javascript:void(0);)
* [1](javascript:void(0);)
* [2](javascript:void(0);)
* [3](javascript:void(0);)
* [Next](javascript:void(0);)

To create a basic pagination, add the .pagination class to an <ul> element. Then add the .page-item to each <li> element and a .page-link class to each link inside <li>:

## Basic Dropdown

A dropdown menu is a toggleable menu that allows the user to choose one value from a predefined list:

The .dropdown class indicates a dropdown menu.

To open the dropdown menu, use a button or a link with a class of .dropdown-toggle and the data-toggle="dropdown" attribute.

Add the .dropdown-menu class to a <div> element to actually build the dropdown menu. Then add the .dropdown-item class to each element (links or buttons) inside the dropdown menu.

## Basic Navbar

With Bootstrap, a navigation bar can extend or collapse, depending on the screen size.

A standard navigation bar is created with the .navbar class, followed by a responsive collapsing class: .navbar-expand-xl|lg|md|sm (stacks the navbar vertically on extra large, large, medium or small screens).

To add links inside the navbar, use a <ul> element with class="navbar-nav". Then add <li> elements with a .nav-item class followed by an <a> element with a .nav-link class:

The carousel is a slideshow for cycling through a series of content, built with CSS 3D transforms and a bit of JavaScript. It works with a series of images, text, or custom markup. It also includes support for previous/next controls and indicators.

# **Carousel:**

In browsers where the Page Visibility API is supported, the carousel will avoid sliding when the webpage is not visible to the user (such as when the browser tab is inactive, the browser window is minimized, etc.).

Please be aware that nested carousels are not supported, and carousels are generally not compliant with accessibility standards.

<div id="demo" class="carousel slide" data-ride="carousel">  
  
  <!-- Indicators -->  
  <ul class="carousel-indicators">  
    <li data-target="#demo" data-slide-to="0" class="active"></li>  
    <li data-target="#demo" data-slide-to="1"></li>  
    <li data-target="#demo" data-slide-to="2"></li>  
  </ul>  
  
  <!-- The slideshow -->  
  <div class="carousel-inner">  
    <div class="carousel-item active">  
      <img src="la.jpg" alt="Los Angeles">  
    </div>  
    <div class="carousel-item">  
      <img src="chicago.jpg" alt="Chicago">  
    </div>  
    <div class="carousel-item">  
      <img src="ny.jpg" alt="New York">  
    </div>  
  </div>  
  
  <!-- Left and right controls -->  
  <a class="carousel-control-prev" href="#demo" data-slide="prev">  
    <span class="carousel-control-prev-icon"></span>  
  </a>  
  <a class="carousel-control-next" href="#demo" data-slide="next">  
    <span class="carousel-control-next-icon"></span>  
**</a>**  
</div>

CONCLUSION: Thus we understand Bootstrap is a free front-end framework for faster and easier web development. Bootstrap also gives you the ability to easily create responsive designs