MODULE -2

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PART A

1Q.Design basic grid system using bootstrap ?

ANS .Grid System Rules

Some Bootstrap grid system rules:

- Rows must be placed within a `.container` (fixed-width) or `.container-fluid` (full-width) for proper alignment and padding
- Use rows to create horizontal groups of columns

Basic Structure of a Bootstrap Grid

```
<div class="container">
  <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>
</div>
```

2Q.Design A basic Bootstrap table has a light padding and only horizontal dividers

ANS.
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <link rel="stylesheet" href="BOOTSTRAP PATH">
</head>

```html
<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>First name</th>
      <th>Last Name</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

3Q.Design Bootstrap Jumbotron and Page Header
ANS.

A jumbotron indicates a big box for calling extra attention to some special content or information. A jumbotron is displayed as a gray box with rounded corners. It also enlarges the font sizes of the text inside it.

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

CODE :

```
<div class="container">
  <div class="jumbotron">
    <h1>Bootstrap Tutorial</h1>
<p>Bootstrap is the most popular HTML, CSS, and JS framework </p>
  </div>
</div>
```

A page header is like a section divider.:

The .page-header class adds a horizontal line under the heading (+ adds some extra space around the element):

Use a <div> element with class .page-header to create a page header:

```
<div class="page-header">
  <h1>Example Page Header</h1>
</div>
```

4Q . Design user interface Dropdowns through bootstrap

ANS.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.

—-------------

```html
<div class="dropdown">
  <button class="btn btn-primary dropdown-toggle" type="button"
data-toggle="dropdown">Dropdown Example
  <span class="caret"></span></button>
  <ul class="dropdown-menu">
    <li><a href="#">HTML</a></li>
    <li><a href="#">CSS</a></li>
    <li><a href="#">JavaScript</a></li>
  </ul>
</div>
```

—-----------

5.Define How To Create a Carousel using bootstrap and design Carousel using bootstrap?

Ans.

The carousel also known as slideshow or image slider is some of the best way of showcasing the huge amount of contents within a small space on the web pages. It is a dynamic presentation of contents where text and images are made visible or accessible to the user by cycling through several items.

```html
<div id="carouselExampleSlidesOnly" class="carousel slide" data-
ride="carousel">

  <div class="carousel-inner">

    <div class="carousel-item active">

      <img class="d-block w-100" src="..." alt="First slide">

    </div>

    <div class="carousel-item">

      <img class="d-block w-100" src="..." alt="Second slide">

    </div>

    <div class="carousel-item">
```

```
        <img class="d-block w-100" src="..." alt="Third slide">

    </div>

  </div>

</div>
```
— The output of the above example will look something like this:

First slide

Second slide

Third slide

6Q. Design a responsive web page using bootstrap.
Ans.
```html
<html>
    <head>
    <title>Responsive Images</title>
    </head>

    <style>
    .responsive{
                width : 100%;
                height : auto;
    }
    </style>

    <body>
    <img src = "lights.jpg" class = "responsive">
    </body>
</html>
```

7Q.1.Creating lists with Bootstrap 2.Bootstrap unstyled ordered and unordered list 3.Placing ordered and unordered list items inline 4.Creating horizontal definition lists with Bootstrap 5.Bootstrap list groups 6.Bootstrap list group with disabled and active items 7.Bootstrap edge-to-edge list groups 8.Bootstrap numbered list groups
Ans. 1.
```html
<ul class="list-group">

<li class="list-group-item">First item</li>
```

```
    <li class="list-group-item">Second item</li>

    <li class="list-group-item">Third item</li>

</ul>

2. <ul class="list-unstyled">

    <li>Home</li>

    <li>Products

        <ul>

            <li>Gadgets</li>

            <li>Accessories</li>

        </ul>

    </li>

    <li>About Us</li>

    <li>Contact</li>

</ul>

3. <ul class="list-inline">

    <li class="list-inline-item">Home</li>

    <li class="list-inline-item">Products</li>

    <li class="list-inline-item">About Us</li>

    <li class="list-inline-item">Contact</li>
```

```html
</ul>

4.<dl class="row">

    <dt class="col-sm-3">User Agent</dt>

    <dd class="col-sm-9">An HTML user agent is any device that
interprets HTML documents.</dd>

    <dt class="col-sm-3 text-truncate">Client-side Scripting</dt>

    <dd class="col-sm-9">Client-side scripting generally refers to
the category of computer programs on the web that are executed by the
user's web browser.</dd>

    <dt class="col-sm-3">Document Tree</dt>

    <dd class="col-sm-9">The tree of elements encoded in the source
document.</dd>

</dl>

5.<ul class="list-group w-50">

    <li class="list-group-item">Pictures</li>

    <li class="list-group-item">Documents</li>

    <li class="list-group-item">Music</li>

    <li class="list-group-item">Videos</li>

</ul>

6.<ul class="list-group w-50">

    <li class="list-group-item active">Pictures</li>

    <li class="list-group-item">Documents</li>
```

```html
    <li class="list-group-item">Music</li>

    <li class="list-group-item disabled">Videos</li>

</ul>

7.<ul class="list-group list-group-flush w-50">

    <li class="list-group-item">Pictures</li>

    <li class="list-group-item">Documents</li>

    <li class="list-group-item">Music</li>

    <li class="list-group-item">Videos</li>

</ul>

8.<ol class="list-group list-group-numbered w-50">

    <li class="list-group-item">An item</li>

    <li class="list-group-item">A second item</li>

    <li class="list-group-item">A third item</li>

    <li class="list-group-item">A fourth item</li>

</ol>
```

9Q. 1.Creating vertical form layouts with Bootstrap 2.Creating horizontal form layouts with Bootstrap 3.Creating inline form layouts with Bootstrap 4.Creating responsive form layouts with Bootstrap 5.Bootstrap static form controls 6.Placing checkboxes inline with Bootstrap 7.Placing radio buttons inline with Bootstrap 8.Height sizing of Inputs and select boxes with Bootstrap 9.Grid sizing of form controls with Bootstrap 10.Disabling form controls with Bootstrap

```html
Ans. 1.<form>

    <div class="mb-3">

        <label class="form-label" for="inputEmail">Email</label>

        <input type="email" class="form-control" id="inputEmail"
placeholder="Email">

    </div>

    <div class="mb-3">

        <label class="form-label"
for="inputPassword">Password</label>

        <input type="password" class="form-control"
id="inputPassword" placeholder="Password">

    </div>

    <div class="mb-3">

        <div class="form-check">

            <input class="form-check-input" type="checkbox"
id="checkRemember">

            <label class="form-check-label"
for="checkRemember">Remember me</label>

        </div>

    </div>

    <button type="submit" class="btn btn-primary">Sign in</button>

</form>
```

```
2.<form>

    <div class="row mb-3">

        <label for="inputEmail" class="col-sm-2 col-form-
label">Email</label>

        <div class="col-sm-10">

            <input type="email" class="form-control" id="inputEmail"
placeholder="Email">

        </div>

    </div>

    <div class="row mb-3">

        <label for="inputPassword" class="col-sm-2 col-form-
label">Password</label>

        <div class="col-sm-10">

            <input type="password" class="form-control"
id="inputPassword" placeholder="Password">

        </div>

    </div>

    <div class="row mb-3">

        <div class="col-sm-10 offset-sm-2">

            <div class="form-check">

                <input class="form-check-input" type="checkbox"
id="checkRemember">
```

```
                    <label class="form-check-label"
for="checkRemember">Remember me</label>

                </div>

            </div>

    </div>

    <div class="row">

        <div class="col-sm-10 offset-sm-2">

            <button type="submit" class="btn btn-primary">Sign
in</button>

        </div>

    </div>

</form>

3.<form>

    <div class="row align-items-center g-3">

        <div class="col-auto">

            <label class="visually-hidden"
for="inputEmail">Email</label>

            <input type="email" class="form-control" id="inputEmail"
placeholder="Email">

        </div>

        <div class="col-auto">
```

```html
            <label class="visually-hidden"
for="inputPassword">Password</label>

            <input type="password" class="form-control"
id="inputPassword" placeholder="Password">

        </div>

        <div class="col-auto">

            <div class="form-check">

                <input class="form-check-input" type="checkbox"
id="checkRemember">

                <label class="form-check-label"
for="checkRemember">Remember me</label>

            </div>

        </div>

        <div class="col-auto">

            <button type="submit" class="btn btn-primary">Sign
in</button>

        </div>

    </div>

</form>
```

4. `<form>`

```html
    <div class="row align-items-center g-3">

        <div class="col-md-auto col-12">
```

```html
            <label class="form-label d-md-none"
for="inputEmail">Email</label>

            <input type="email" class="form-control" id="inputEmail"
placeholder="Email">

        </div>

        <div class="col-md-auto col-12">

            <label class="form-label d-md-none"
for="inputPassword">Password</label>

            <input type="password" class="form-control"
id="inputPassword" placeholder="Password">

        </div>

        <div class="col-md-auto col-12">

            <div class="form-check">

                <input class="form-check-input" type="checkbox"
id="checkRemember">

                <label class="form-check-label"
for="checkRemember">Remember me</label>

            </div>

        </div>

        <div class="col-md-auto col-12">

            <button type="submit" class="btn btn-primary">Sign
in</button>

        </div>
```

```
      </div>

</form>

5. <form>

    <div class="row mb-3">

        <label for="inputEmail" class="col-sm-2 col-form-
label">Email</label>

        <div class="col-sm-10">

            <input type="email" readonly class="form-control-
plaintext" id="inputEmail" value="peterparker@example.com">

        </div>

    </div>

    <div class="row mb-3">

        <label for="inputPassword" class="col-sm-2 col-form-
label">Password</label>

        <div class="col-sm-10">

            <input type="password" class="form-control"
id="inputPassword" placeholder="Password">

        </div>

    </div>

    <div class="row mb-3">

        <div class="col-sm-10 offset-sm-2">

            <div class="form-check">
```

```html
                    <input class="form-check-input" type="checkbox" id="checkRemember">

                    <label class="form-check-label" for="checkRemember">Remember me</label>

            </div>

        </div>

    </div>

    <div class="row">

        <div class="col-sm-10 offset-sm-2">

            <button type="submit" class="btn btn-primary">Sign in</button>

        </div>

    </div>

</form>

6. <div class="row">

    <div class="col-12">

        <div class="form-check form-check-inline">

            <input type="checkbox" class="form-check-input" name="hobbies" id="checkMusic">

            <label class="form-check-label" for="checkMusic">Music</label>

        </div>
```

```html
        <div class="form-check form-check-inline ms-3">

            <input type="checkbox" class="form-check-input" name="hobbies" id="checkTravel" checked>

            <label class="form-check-label" for="checkTravel">Travel</label>

        </div>

        <div class="form-check form-check-inline ms-3">

            <input type="checkbox" class="form-check-input" name="hobbies" id="checkReading" checked>

            <label class="form-check-label" for="checkReading">Reading</label>

        </div>

    </div>

</div>

7. <div class="row">

    <div class="col-12">

        <div class="form-check form-check-inline">

            <input type="radio" class="form-check-input" name="gender" id="radioMale" checked>

            <label class="form-check-label" for="radioMale">Male</label>

        </div>

        <div class="form-check form-check-inline ms-3">
```

```html
            <input type="radio" class="form-check-input"
name="gender" id="radioFemale">

            <label class="form-check-label"
for="radioFemale">Female</label>

        </div>

    </div>

</div>

8. <div class="row mb-3">

    <label class="col-sm-2 col-form-label col-form-label-
lg">Email</label>

    <div class="col-sm-10">

        <input type="email" class="form-control form-control-lg"
placeholder="Large input">

    </div>

</div>

<div class="row mb-3">

    <label class="col-sm-2 col-form-label">Email</label>

    <div class="col-sm-10">

        <input type="email" class="form-control" placeholder="Default
input">

    </div>

</div>
```

```html
<div class="row">

    <label class="col-sm-2 col-form-label">Email</label>

    <div class="col-sm-10">

        <input type="email" class="form-control form-control-sm" placeholder="Small input">

    </div>

</div>
```

9.
```html
<input class="form-control form-control-lg" type="text" placeholder=".form-control-lg">

<input class="form-control" type="text" placeholder="Default input">

<input class="form-control form-control-sm" type="text" placeholder=".form-control-sm">
```

10.
```html
<input type="text" class="form-control mb-3" placeholder="Disabled input" disabled>

<textarea class="form-control mb-3" placeholder="Disabled textarea" disabled></textarea>

<select class="form-select" disabled>

    <option>Disabled select</option>

</select>
```

10Q. 1. Creating buttons with Bootstrap 2.Creating outline buttons styles in Bootstrap 3.Creating large buttons with Bootstrap 4.Creating small buttons with Bootstrap 5.Creating block buttons with Bootstrap 6.Creating disabled Bootstrap buttons using the input and button element

```html
Ans. 1.<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-danger">Danger</button>

<button type="button" class="btn btn-warning">Warning</button>

<button type="button" class="btn btn-info">Info</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>

2. <button type="button" class="btn btn-outline-primary">Primary</button>

<button type="button" class="btn btn-outline-secondary">Secondary</button>

<button type="button" class="btn btn-outline-success">Success</button>

<button type="button" class="btn btn-outline-danger">Danger</button>

<button type="button" class="btn btn-outline-warning">Warning</button>

<button type="button" class="btn btn-outline-info">Info</button>

<button type="button" class="btn btn-outline-dark">Dark</button>

<button type="button" class="btn btn-outline-light">Light</button>
```

```html
3. <button type="button" class="btn btn-primary btn-lg">Large
button</button>

<button type="button" class="btn btn-secondary btn-lg">Large
button</button>

4. <button type="button" class="btn btn-primary btn-sm">Small
button</button>

<button type="button" class="btn btn-secondary btn-sm">Small
button</button>

5. <div class="d-grid gap-2">

    <button type="button" class="btn btn-primary">Block
button</button>

    <button type="button" class="btn btn-secondary">Block
button</button>

</div>

6. <button type="button" class="btn btn-primary" disabled>Primary
button</button>

<button type="button" class="btn btn-secondary" disabled>Secondary
button</button>
```

Part-b

1Q. Explain why Bootstrap is preferred for website development.

Ans. **1. Time-saving**

Working on a project that has a number of templates can be time-consuming. Furthermore, even a small design change can lead to hours of manual editing over multiple webpages, especially if you're not careful.

2. Easy to Use

Bootstrap is very simple to use – the setup process doesn't take too long and is relatively easy, even for beginners.

3. Responsive Grid System

One of today's most significant demands in terms of web development is making sure that websites are responsive and mobile-friendly.

4. Customizable

If you're not happy with Bootstrap's design template, you can add your own twist to its CSS file. You can also combine it with the existing code and make them complement each other's functions.

5. Cross-browser Compatible

Bootstrap is compatible with the latest versions of all modern browsers and platforms.

6. Maintain Consistency

Both Mark Otto and Jacob Thornton developed Bootstrap specifically to solve the inconsistency issue between front-end and back-end developers, and it truly delivers. Bootstrap eliminates the use of libraries that always differ from one developer to the other.

7. Open Source

Bootstrap is an open-source framework, meaning that you can use and modify it without purchasing any license.

8. Community-centered

Bootstrap has the full support of its community who offer tutorials and assistance for anyone who might need it.

2Q. What are the key components of Bootstrap?

Ans.
- Dropdown menus

  - Navigation Bars
  - Button Groups
  - Labels
  - Breadcrumbs
  - Alerts & Progress Bars
  - Pagination
  - Typographic
  - Glyphicons
  - Jumbotron
  - Media object and Wells

3Q. What are Class loaders in Bootstrap?

Ans. Class loader finds and loads the class at runtime. Java class loader can load classes from across network or from other sources like HTTP, FTP etc.

Bootstrap class loader is responsible for loading classes that are used by JVM to function properly from "jdk/jre/lib/rt.jar".

4Q. How many types of layout are available in Bootstrap?

Ans. There are two major layouts for Bootstrap that are Fluid Layout and Fixed Layout.

- **Fluid-layout**: This uses the bootstrap *.container-fluid* class for the layout. This layout uses proportional values such as measuring units for a block of content, images, or any other item. Used for creating an element that is 100 % wider and covers all the screen widths. Fluid layout continuously resizes as you change the width of your browser by any amount, leaving no extra empty space on the sides ever Hence it is named "fluid layout".
- **Fixed-layout**: This uses the bootstrap *.container* class for the layout. The fixed-layout has specific pixel width values that change its width value with the help of media queries. It provides a responsive fixed-width container. Fixed layout resizes in chunks at several certain widths as pixels values are specified.

5Q. Why do we use Jumbotron in Bootstrap?

Ans. 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.

6Q. Explain what pagination in bootstrap is and how they are classified?

Ans. 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:
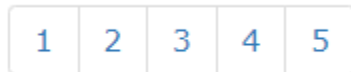
| 1 | 2 | 3 | 4 | 5 |

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

Example

```
<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>
```

7Q. Explain how you can create Nav elements in Bootstrap?

Ans. Navbars require a wrapping `.navbar` with `.navbar-expand{-sm|-md|-lg|-xl}` for responsive collapsing and color scheme classes.

● Navbars and their contents are fluid by default. Use optional containers to limit their horizontal width.

- Use our spacing and flex utility classes for controlling spacing and alignment within navbars.
- Navbars are responsive by default, but you can easily modify them to change that. Responsive behavior depends on our Collapse JavaScript plugin.
- Navbars are hidden by default when printing. Force them to be printed by adding `.d-print` to the `.navbar`. See the display utility class.
- Ensure accessibility by using a `<nav>` element or, if using a more generic element such as a `<div>`, add a `role="navigation"` to every navbar to explicitly identify it as a landmark region for users of assistive technologies.
- `.navbar-brand` for your company, product, or project name.
- `.navbar-nav` for a full-height and lightweight navigation (including support for dropdowns).
- `.navbar-toggler` for use with our collapse plugin and other navigation toggling behaviors.
- `.form-inline` for any form controls and actions.
- `.navbar-text` for adding vertically centered strings of text.
- `.collapse.navbar-collapse` for grouping and hiding navbar contents by a parent breakpoint.

8Q. Please provide an explanation of input groups in Bootstrap.

Ans. The `.input-group` class is a container to enhance an input by adding an icon, text or a button in front or behind the input field as a "help text".

To style the specified help text, use the `.input-group-text` class:

@	Username

Your Email	@example.com

```
<form>

  <div class="input-group">

    <span class="input-group-text">@</span>

    <input type="text" class="form-control" placeholder="Username">
```

```
        </div>


    <div class="input-group">

      <input type="text" class="form-control" placeholder="Your Email">

      <span class="input-group-text">@example.com</span>

    </div>

</form>
```

9Q. How do you create and customize thumbnails in Bootstrap?

Ans. **Step 1:** Include Bootstrap and jQuery CDN into the <head> tag before all other stylesheets to load our CSS.

<link rel="stylesheet" href="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.6/css/bootstrap.min.css">

<script src="https://ajax.googleapis.com/ajax/libs/jquery/1.12.0/jquery.min.js"></script>

<script src="http://maxcdn.bootstrapcdn.com/bootstrap/3.3.6/js/bootstrap.min.js"></script>

Step 2: Add <div> tag in the HTML body with class row. In that <div> create four *div* sections to create four images.

Step 3: Add "col-sm-6" and "col-md-3" to four *div* sections which creates webpage responsive.

Step 4: Add <a> tag with class value *thumbnail* to define the link of the image in the next line.

```
<a href="#" class="thumbnail">
```

10Q. What are the features of Bootstrap v4?

Ans. 1. Bootstrap Reboot Functionality

2. Grid System Improvements

3. Major Browser Support

4. Bootstrap 4 Advanced Flexbox

5. Improved Form Support

6. SASS Flexible Performance

7. Introduced New Card Components

8. Responsive Spacing Utilities

11Q. How to visible elements based on device screen?

Ans. The visibility CSS property shows or hides an element without changing the layout of a document. The property can also hide rows or columns in a <table>.

visible

The element box is visible.

hidden

The element box is invisible (not drawn), but still affects layout as normal. Descendants of the element will be visible if they have visibility set to visible. The element cannot receive focus (such as when navigating through tab indexes).

12Q. What is the grid size in Bootstrap 4?

Ans. Bootstrap's grid system allows up to 12 columns across the page.

If you do not want to use all 12 column 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 depending on the screen size: On a big screen it might look better with the content organized in three columns, but on a small screen it would be better if the content items were stacked on top of each other.

13Q. What are cards in Bootstrap 4?

Ans. A card in Bootstrap 4 is a bordered box with some padding around its content. It includes options for headers, footers, content, colors, etc.

```
<div class="card">

  <div class="card-body">Basic card</div>

</div>
```

John Doe

Some example text some example text. John Doe is an architect and engineer

See Profile

14Q. Explain types of lists supported by Bootstrap.

Ans. A list is a record of information that makes finding items easy using bullets.

There are 3 types of lists supported by Bootstrap are:

- **Unordered Lists:** In Unordered lists, items are marked with bullets.
- **Ordered Lists:** In Ordered lists items are marked with numerical bullets such as 1,2, i, ii, etc.
- **Definition Lists:** In Definition lists, items are defined with its description.

Unordered List

- Chocolates
- Biscuits
  - Jim-Jam
  - Oreo
- Fruits
- Gifts

Ordered List

1. Chocolates
2. Biscuits
   i. Jim-Jam
   ii. Oreo
3. Fruits
4. Gifts

15Q. What is media object in Bootstrap and what are their types?

Ans. The Bootstrap Media Objects like images or videos can be aligned to the left or to the right of some content in an easy and efficient manner.

The Bootstrap Media Objects are used where some data is positioned alongside content to build up complicated and recursive components of the content.

The media object classes available are:

- .media
- .media-body

Bootstrap spacing is used to controlled padding and margin.

Left and Right Alignment

- "media-left" class is used to left-align a media object.
- "media-right" class is used to right-align the media object.
- "media-body" class is used to place the content.

```
<div class="media-left">
    <img src="...">
</div>
<div class="media-body">
    Content to be placed
</div>
```

16Q. What are bootstrap alerts and how will you create them?

Ans.

Bootstrap provides an easy way to create predefined alert messages:

> **Success!** This alert box indicates a successful or positive action.   ×

> **Info!** This alert box indicates a neutral informative change or action.   ×

> **Warning!** This alert box indicates a warning that might need attention.   ×

> **Danger!** This alert box indicates a dangerous or potentially negative action.   ×

Alerts are created with the `.alert` class, followed by one of the four contextual classes `.alert-success`, `.alert-info`, `.alert-warning` or `.alert-danger` :

```
<div class="alert alert-success">
  <strong>Success!</strong> Indicates a successful or positive action.
</div>

<div class="alert alert-info">
  <strong>Info!</strong> Indicates a neutral informative change or action.
</div>

<div class="alert alert-warning">
  <strong>Warning!</strong> Indicates a warning that might need attention.
</div>

<div class="alert alert-danger">
  <strong>Danger!</strong> Indicates a dangerous or potentially negative action.
</div>
```

17Q. What are Bootstrap panels? Explain how to create a Bootstrap panel with a heading.

Ans.

A panel in bootstrap is a bordered box with some padding around its content:

A Basic Panel

Panels are created with the `.panel` class, and content inside the panel has a `.panel-body` class:

```
<div class="panel panel-default">
  <div class="panel-body">A Basic Panel</div>
</div>
```

Panel Heading

Panel Heading
Panel Content

The `.panel-heading` class adds a heading to the panel:

```
<div class="panel panel-default">
  <div class="panel-heading">Panel Heading</div>
  <div class="panel-body">Panel Content</div>
</div>
```

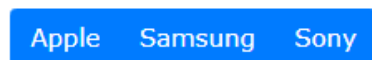18Q. Why do we need to use Bootstrap?

Ans. It is easy to set up and master, it has a lot of components, a good grid system, styling for many HTML elements ranging from typography to buttons, as well as support of JavaScript plugins, making it even more flexible.

Bootstrap is great for creating layouts, as its responsive CSS is designed to conform to different devices. It can be employed to ensure consistency, eliminate cross-browser issues, and so on.

19Q. What is Button group and which class is used for basic button group?What is the Bootstrap Panel?

Ans.

Bootstrap 4 allows you to group a series of buttons together (on a single line) in a button group:

Apple   Samsung   Sony

Use a `<div>` element with class `.btn-group` to create a button group:
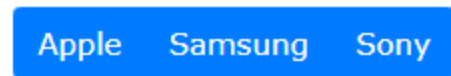
```
<div class="btn-group">
  <button type="button" class="btn btn-primary">Apple</button>
  <button type="button" class="btn btn-primary">Samsung</button>
  <button type="button" class="btn btn-primary">Sony</button>
</div>
```
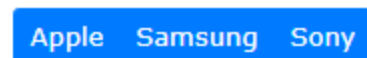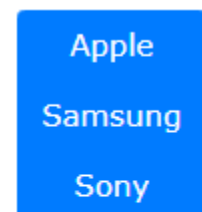
Large Buttons:

Apple   Samsung   Sony

Default Buttons:

Apple   Samsung   Sony

Small Buttons:

Apple   Samsung   Sony

```html
<div class="btn-group btn-group-lg">
  <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>
```

Apple

Samsung

Sony

Use the class `.btn-group-vertical` to create a vertical button group:

```html
<div class="btn-group-vertical">
  <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>
```

In Bootstrap, a panel is a bordered box with some padding around its element. The panel components are used when you want to put your DOM component in a box.

The **class .panel** is used within the <div> element to create Bootstrap panels. The content inside the panel has a **.panel-body class**.

Generally a panel contains three parts:

- Panel header

- Panel content

- Panel footer

20Q. What is Normalize in Bootstrap?

The `normalize()` method removes empty text nodes, and joins adjacent text nodes.

node.normalize()--- syntax

Bootstrap uses Normalize to establish cross browser consistency. Normalize.css is a modern, HTML5-ready alternative to CSS resets. It is a small CSS file that provides better cross-browser consistency in the default styling of HTML elements. It is up to you to choose the way you do your CSS, whether you make a grid or whatever; you don't even have to make a grid.

Part-c

1Q. How can you order columns in Bootstrap?

```
<div class="row">
  <div class="col-xs-3 col-md-6">
    1
  </div>
  <div class="col-xs-3 col-md-6">
    2
  </div>
  <div class="col-xs-6 col-md-12">
    3
  </div>
</div>
```

Ans.

2Q. How do you make images responsive?

Ans. <html>

   <head>

   <title>Responsive Images</title>

   </head>

   <style>

   .responsive{

         width : 100%;

         height : auto;

   }

   </style>

   <body>

   <img src = "lights.jpg" class = "responsive">

   </body>

</html>

3Q. Explain the typography and links in Bootstrap.

Ans. Typography is a feature of Bootstrap for styling and formatting the text content. It is used to create customized headings, inline subheadings, lists, paragraphs, aligning, adding more design-oriented font styles and much more.

Typography can be used to create:

- Headings
- Subheadings
- Text and Paragraph font color, font type and alignment
- Lists
- Other inline elements

4Q. Explain types of lists supported by Bootstrap.

Ans. A list is a record of information that makes finding items easy using bullets.

There are 3 types of lists supported by Bootstrap are:

- **Unordered Lists:** In Unordered lists, items are marked with bullets.
- **Ordered Lists:** In Ordered lists items are marked with numerical bullets such as 1,2, i, ii, etc.
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Unordered List

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- Biscuits
  - Jim-Jam
  - Oreo
- Fruits
- Gifts

Ordered List

1. Chocolates
2. Biscuits
   i. Jim-Jam
   ii. Oreo
3. Fruits
4. Gifts

5Q. How do you use Glyphicons?

Ans.

```
<p>Envelope icon: <span class="glyphicon glyphicon-envelope"></span></p>
<p>Search icon: <span class="glyphicon glyphicon-search"></span></p>
<p>Print icon: <span class="glyphicon glyphicon-print"></span></p>
```

☁	glyphicon glyphicon-cloud
✉	glyphicon glyphicon-envelope
✎	glyphicon glyphicon-pencil
Y	glyphicon glyphicon-glass
♫	glyphicon glyphicon-music
🔍	glyphicon glyphicon-search
♥	glyphicon glyphicon-heart
★	glyphicon glyphicon-star
☆	glyphicon glyphicon-star-empty
👤	glyphicon glyphicon-user
🎞	glyphicon glyphicon-film

6Q. What is a transition plugin?

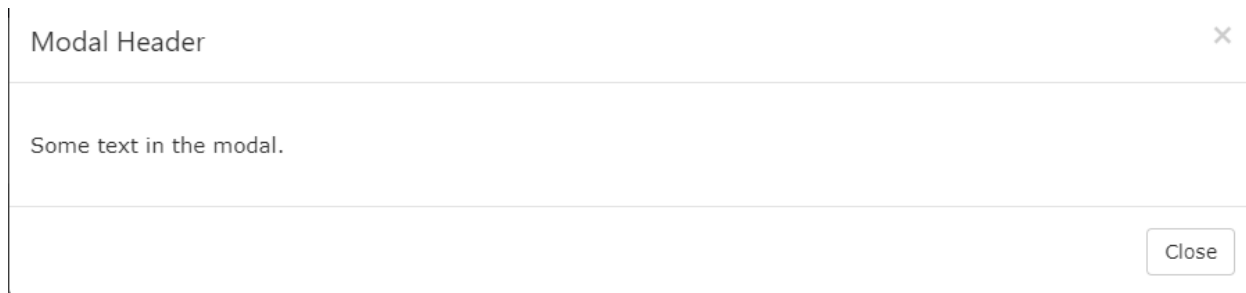**Ans.** The transition plugin provides a simple transition effects.

> If you want to include this plugin functionality individually, then you will need transition.js once alongside the other JS files. Else, as mentioned in the chapter Bootstrap Plugins Overview, you can include *bootstrap.js* or the minified *bootstrap.min.js*.
>
> *Transition.js* is a basic helper for transitionEnd events as well as a CSS transition emulator. It is used by the other plugins to check for CSS transition support and to catch hanging transitions.

7Q. What is a Modal Plugin?

Ans. The Modal plugin is a dialog box/popup window that is displayed on top of the current page:

Click To Open Modal

Modal Header	✕
Some text in the modal.	
	Close

```html
<button type="button" class="btn btn-info btn-lg" data-toggle="modal" data-target="#myModal">Open
Modal</button>

<!-- Modal -->
<div id="myModal" class="modal fade" role="dialog">
  <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">Modal Header</h4>
      </div>
      <div class="modal-body">
        <p>Some text in the modal.</p>
      </div>
      <div class="modal-footer">
        <button type="button" class="btn btn-default" data-dismiss="modal">Close</button>
      </div>
    </div>

  </div>
</div>
```

8Q. How do you use the Dropdown plugin?

Ans. Using Dropdown plugin you can add dropdown menus to any components like navbars, tabs, pills and buttons.

If you want to include this plugin functionality individually, then you will need dropdown.js. Else, as mentioned in the chapter Bootstrap Plugins Overview, you can include *bootstrap.js* or the minified *bootstrap.min.js*.

```
<div class = "dropdown">
   <a data-toggle = "dropdown" href = "#">Dropdown trigger</a>

   <ul class = "dropdown-menu" role = "menu" aria-labelledby = "dLabel">
      ...
   </ul>

</div>
```

```
<div class = "dropdown">

   <a id = "dLabel" role = "button" data-toggle = "dropdown" data-target
= "#" href = "/page.html">

      Dropdown

      <span class = "caret"></span>

   </a>



   <ul class = "dropdown-menu" role = "menu" aria-labelledby = "dLabel">

      ...

   </ul>


</div>
```

9Q. Which class is used for basic pagination?

Ans.

```html
<div class="container">

    <h1>Bootstrap 4 | Basic Pagination</h1>


    <!-- Declare the pagination class -->

    <ul class="pagination">


        <!-- Declare the item in the group -->

        <li class="page-item">


            <!-- Declare the link of the item -->

            <a class="page-link" href="#">Previous</a>

        </li>


        <!-- Rest of the pagination items -->

        <li class="page-item">

            <a class="page-link" href="#">1</a>
```

```
        </li>

        <li class="page-item">

            <a class="page-link" href="#">2</a>

        </li>

        <li class="page-item">

            <a class="page-link" href="#">3</a>

        </li>

        <li class="page-item">

            <a class="page-link"
href="#">Next</a>

        </li>

    </ul>

</div>
```

10Q. What is Bootstrap caraousel?

Ans. **The carousel also known as slideshow or image slider is some of the best way of showcasing the huge amount of contents within a small space on the web pages. It is a dynamic presentation of contents where text and images are made visible or accessible to the user by cycling through several items.**

```
<div id="carouselExampleSlidesOnly" class="carousel slide" data-
ride="carousel">
```

```html
<div class="carousel-inner">

  <div class="carousel-item active">

    <img class="d-block w-100" src="..." alt="First slide">

  </div>

  <div class="carousel-item">

    <img class="d-block w-100" src="..." alt="Second slide">

  </div>

  <div class="carousel-item">

    <img class="d-block w-100" src="..." alt="Third slide">

  </div>

</div>

</div>
```

11Q. Which class is used for basic button group?

Ans.

Basic Button Group

The following example demonstrates the use of class **.btn-group** discussed in the above table –

Live Demo

```html
<div class = "btn-group">

   <button type = "button" class = "btn btn-default">Button 1</button>
   <button type = "button" class = "btn btn-default">Button 2</button>
   <button type = "button" class = "btn btn-default">Button 3</button>

</div>
```

| Button 1 | Button 2 | Button 3 |

12Q. Which class is used to draw a toolbar of buttons.

Ans.

Button Toolbar

The following example demonstrates the use of class **.btn-toolbar** discussed in the above table –

```
<div class = "btn-toolbar" role = "toolbar">                                    Live Demo

   <div class = "btn-group">
       <button type = "button" class = "btn btn-default">Button 1</button>
       <button type = "button" class = "btn btn-default">Button 2</button>
       <button type = "button" class = "btn btn-default">Button 3</button>
   </div>

   <div class = "btn-group">
       <button type = "button" class = "btn btn-default">Button 4</button>
       <button type = "button" class = "btn btn-default">Button 5</button>
       <button type = "button" class = "btn btn-default">Button 6</button>
   </div>

   <div class = "btn-group">
       <button type = "button" class = "btn btn-default">Button 7</button>
       <button type = "button" class = "btn btn-default">Button 8</button>
       <button type = "button" class = "btn btn-default">Button 9</button>
   </div>

</div>
```

Button 1	Button 2	Button 3	Button 4	Button 5	Button 6
Button 7	Button 8	Button 9			

13Q. Which classes can be applied to button group instead of resizing each button.

Ans.

Button Size

The following example demonstrates the use of class **.btn-group-*** discussed in the above table –
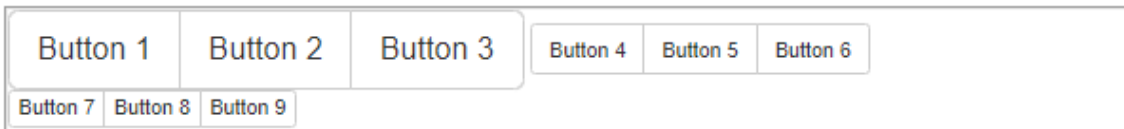
```
<div class = "btn-group btn-group-lg">
   <button type = "button" class = "btn btn-default">Button 1</button>
   <button type = "button" class = "btn btn-default">Button 2</button>
   <button type = "button" class = "btn btn-default">Button 3</button>
</div>

<div class = "btn-group btn-group-sm">
   <button type = "button" class = "btn btn-default">Button 4</button>
   <button type = "button" class = "btn btn-default">Button 5</button>
   <button type = "button" class = "btn btn-default">Button 6</button>
</div>

<div class = "btn-group btn-group-xs">
   <button type = "button" class = "btn btn-default">Button 7</button>
   <button type = "button" class = "btn btn-default">Button 8</button>
   <button type = "button" class = "btn btn-default">Button 9</button>
</div>
```

Live Demo

| Button 1 | Button 2 | Button 3 | Button 4 | Button 5 | Button 6 |

| Button 7 | Button 8 | Button 9 |

14Q. Which class make a set of buttons appear vertically stacked rather than horizontally.

Ans.

Vertical Buttongroup

The following example demonstrates the use of class **.btn-group-vertical** discussed in the above table –

```
<div class = "btn-group-vertical">                          Live Demo
   <button type = "button" class = "btn btn-default">Button 1</button>
   <button type = "button" class = "btn btn-default">Button 2</button>

   <div class = "btn-group-vertical">
      <button type = "button" class = "btn btn-default dropdown-toggle" data-toggle =
         Dropdown
         <span class = "caret"></span>
      </button>

      <ul class = "dropdown-menu">
         <li><a href = "#">Dropdown link 1</a></li>
         <li><a href = "#">Dropdown link 2</a></li>
      </ul>
   </div>

</div>
```

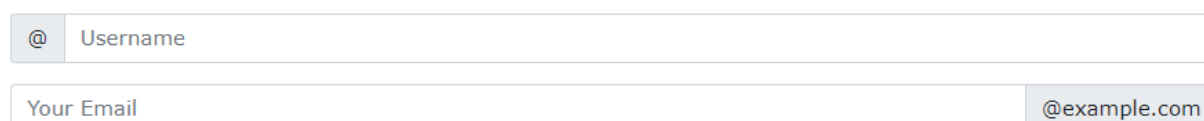| Button 1 |
|----------|
| Button 2 |
| Dropdown ▾ |

15Q. What are input groups?

Ans.

Input Groups

The `.input-group` class is a container to enhance an input by adding an icon, text or a button in front or behind the input field as a "help text".

To style the specified help text, use the `.input-group-text` class:

@	Username

Your Email	@example.com

```html
<form>
  <div class="input-group">
    <span class="input-group-text">@</span>
    <input type="text" class="form-control" placeholder="Username">
  </div>

  <div class="input-group">
    <input type="text" class="form-control" placeholder="Your Email">
    <span class="input-group-text">@example.com</span>
  </div>
</form>
```

16Q. How will you create a tabbed navigation menu?

```html
<ul class="nav nav-tabs">
  <li class="nav-item">
    <a class="nav-link active"
       aria-current="page" href="#">Home</a>
  </li>
  <li class="nav-item">
    <a class="nav-link" href="#">Courses</a>
  </li>
  <li class="nav-item">
    <a class="nav-link" href="#">Articles</a>
  </li>
  <li class="nav-item">
    <a
      class="nav-link disabled"
      href="#"
      tabindex="-1"
      aria-disabled="true">
      Not Servicable
    </a>
  </li>
```

Ans. `</ul>`

17Q. How will you create a pills navigation menu?

Tabs

Home	Menu 1	Menu 2	Menu 3

Tabs are created with `<ul class="nav nav-tabs">` :

Tip: Also mark the current page with `<li class="active">` .

The following example creates navigation tabs:

Example

```
<ul class="nav nav-tabs">
  <li class="active"><a href="#">Home</a></li>
  <li><a href="#">Menu 1</a></li>
  <li><a href="#">Menu 2</a></li>
  <li><a href="#">Menu 3</a></li>
</ul>
```

Ans.

Pills

Home	Menu 1	Menu 2	Menu 3

Pills are created with `<ul class="nav nav-pills">` . Also mark the current page with `<li class="active">` :

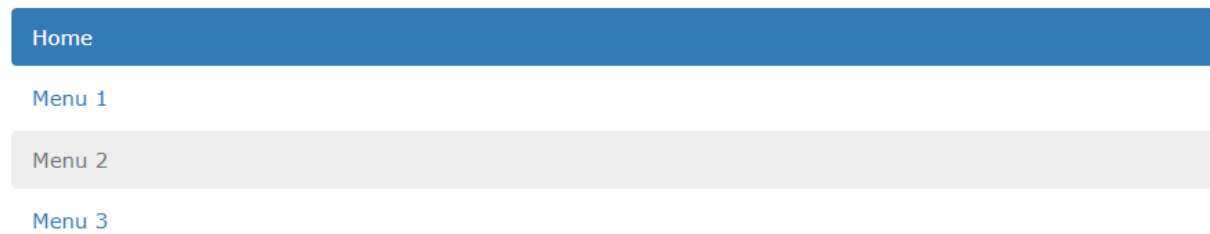## Example

```
<ul class="nav nav-pills">
  <li class="active"><a href="#">Home</a></li>
  <li><a href="#">Menu 1</a></li>
  <li><a href="#">Menu 2</a></li>
  <li><a href="#">Menu 3</a></li>
</ul>
```

18Q. How will you create a vertical pills navigation menu.

Ans.

Vertical Pills

Home

Menu 1

Menu 2

Menu 3

Pills can also be displayed vertically. Just add the `.nav-stacked` class:

Example

```html
<ul class="nav nav-pills nav-stacked">
  <li class="active"><a href="#">Home</a></li>
  <li><a href="#">Menu 1</a></li>
  <li><a href="#">Menu 2</a></li>
  <li><a href="#">Menu 3</a></li>
</ul>
```
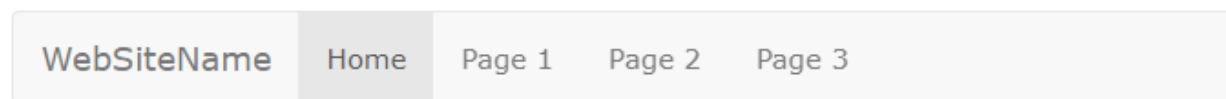
19Q. What is bootstrap navbar?

Ans.

Navigation Bars

A navigation bar is a navigation header that is placed at the top of the page:

| WebSiteName | Home | Page 1 | Page 2 | Page 3 |

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

A standard navigation bar is created with `<nav class="navbar navbar-default">`.

The following example shows how to add a navigation bar to the top of the page:

```html
<nav class="navbar navbar-default">
  <div class="container-fluid">
    <div class="navbar-header">
      <a class="navbar-brand" href="#">WebSiteName</a>
    </div>
    <ul class="nav navbar-nav">
      <li class="active"><a href="#">Home</a></li>
      <li><a href="#">Page 1</a></li>
      <li><a href="#">Page 2</a></li>
      <li><a href="#">Page 3</a></li>
    </ul>
  </div>
</nav>
...
```