Bootstrap

Bootstrap is the most commonly used framework for Front-End Development. [Django is the most commonly used web framework for back-end development with Python]

Bootstrap providing several pre defined libraries for css and java script.

Current version of Bootstrap is: 4.1.1

Bootsrap 3 vs Bootstrap 4:

1. Panels are replaced with Cards
2. Larger default font sizes
3. New Grid Tier(XL)
4. Use of Flexbox
5. Moved from Less to Sass

website: getbootstrap.com

How to connect Bootstrap with HTML:

We can connect Bootstrap with HTML by using the following 2 ways

1. By using CDN
2. Locally

1. By using CDN:

Content Delivery Network

just add the following in the <head> part of our html

<link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/css/bootstrap.min.css">

demo.html:

```html
1) <!DOCTYPE html>
2) <html lang="en" dir="ltr">
3)   <head>
4)     <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.1/css/bootstrap.min.css">
5)     <meta charset="utf-8">
6)     <title></title>
7)   </head>
8)   <body>
9)     <h1>This is First Bootstrap Demo</h1>
10)   </body>
11) </html>
```

2. Locally:

Download bootstrap.css file from the link getbootstrap.com and download button

https://github.com/twbs/bootstrap/releases/download/v4.1.1/bootstrap-4.1.1-dist.zip

zip file contains bootstrap.css file.
copy this file in our application folder and add the following link in html

<link rel="stylesheet" href="Bootstrap.css">

demo.html:

```html
1) <!DOCTYPE html>
2) <html lang="en" dir="ltr">
3)   <head>
4)     <link rel="stylesheet" href="Bootstrap.css">
5)     <meta charset="utf-8">
6)     <title></title>
7)   </head>
8)   <body>
9)     <h1>This is First Bootstrap Demo</h1>
10)
11)   </body>
12) </html>
```

Agenda:
1. Buttons
2. Forms
3. Nav
4. Grid

Bootstrap- Buttons:

Most of the styles in Bootstrap are implemented as class styles.(ie class selectors)

We can use these classes directly in our web application to improve look and feel.

The following are commonly used classes

1. container class
2. button related classes
2. jumbotron classes

1. container class:

To center our elements we should use container class.

eg:

```
1)  <div class="container">
2)      <h1>This is First Bootstrap Demo</h1>
3)  </div>
```

2. Button classes:

We can use button related classes for <a>,<button> and <input> tags.

How to use bootstrap success style for our buttons:

We have to use btn btn-success

<button type="button" name="button" class="btn btn-success ">Login</button>

To make our button as large: btn-lg

<button type="button" name="button" class="btn btn-success btn-lg ">Login</button>

To make button as active:

We have to use active class

<button type="button" name="button" class="btn btn-success btn-lg active">Login</button>

To make button as disabled:

<button type="button" name="button" class="btn btn-success"
disabled="disabled">Login</button>

Usage of button related classes for anchor tag:

Click Here for Bootstrap Documentation

Usage of button related classes for input tag:

We can use button related classes for input tag also,but not recommended to use.

Name: <input type="text" class="btn btn-success btn-lg" name="" value="">

How to change default styles of Bootstrap:

Based on our requirement we can customize/change bootstrap default styles.

eg:

```html
1)  <html lang="en" dir="ltr">
2)   <head>
3)    <link rel="stylesheet" href="Bootstrap.css">
4)     <style type="text/css">
5)    .btn-success{
6)      background: orange;
7)      color: blue;
8)      }
9)    </style>
10)  </head>
11)  <body>
12)   <div class="container">
13)    <button type="button" name="button" class="btn btn-success ">Login</button>
14)   </div>
15)  </body>
16) </html>
```

Jumbotron classes:

A lightweight, flexible component that can optionally extend the entire viewport to showcase key content on our site.

eg:

```html
1)  <div class="jumbotron">
2)    <h1>Hello, world!</h1>
3)    <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, dsfsafd.</p>
4)    <p><a class="btn btn-primary btn-lg" href="#" role="button">Learn more</a></p>
5)   </div>
6)  </div>
```

Note: Several scenarios with HTML,CSS and JS https://www.w3schools.com/howto/

Bootstrap Forms:

Bootstrap provides several classes for forms. The main important classes are

1. form-group:

It is responsible to maintain proper space between elements so that elements will be arranged properly.

2. form-control:

This class is responsible to make width as 100% for elements <input>, <textarea>, and <select>. It is also responsible for border styling.

Basic Example Form :

```
1)  <form>
2)    <div class="form-group">
3)      <label for="exampleInputEmail1">Email address</label>
4)      <input type="email" class="form-control" id="exampleInputEmail1" placeholder="Email">
5)    </div>
6)    <div class="form-group">
7)      <label for="exampleInputPassword1">Password</label>
8)      <input type="password" class="form-control" id="exampleInputPassword1" placeholder="Password">
9)    </div>
10)   <div class="form-group">
11)     <label for="exampleInputFile">File input</label>
12)     <input type="file" id="exampleInputFile">
13)     <p class="help-block">Example block-level help text here.</p>
14)   </div>
15)   <div class="checkbox">
16)     <label>
17)       <input type="checkbox"> Check me out
18)     </label>
19)   </div>
20)   <button type="submit" class="btn btn-default">Submit</button>
21) </form>
```

Inline Form:

```
1)  <form class="form-inline">
2)    <div class="form-group">
3)      <label for="exampleInputName2">Name</label>
```

```
4)    <input type="text" class="form-
      control" id="exampleInputName2" placeholder="Jane Doe">
5)    </div>
6)    <div class="form-group">
7)     <label for="exampleInputEmail2">Email</label>
8)     <input type="email" class="form-
      control" id="exampleInputEmail2" placeholder="jane.doe@example.com">
9)    </div>
10)   <button type="submit" class="btn btn-default">Send invitation</button>
11) </form>
```

Form Development by using Bootstrap elements:

```
<form>

  <!-- EMAIL SUBMISSION -->

 <div class="form-group">
  <label for="exampleInputEmail1">Email address</label>
  <input type="email" class="form-control" id="exampleInputEmail1" aria-
describedby="emailHelp" placeholder="Enter email">
  <small id="emailHelp" class="form-text text-muted">We'll never share your email with anyone
else.</small>
 </div>

 <!-- PASSWORD -->


 <div class="form-group">
  <label for="exampleInputPassword1">Password</label>
  <input type="password" class="form-control" id="exampleInputPassword1"
placeholder="Password">
 </div>

 <!-- DROPDOWN SELECT -->


 <div class="form-group">
  <label for="exampleSelect1">Example select</label>
  <select class="form-control" id="exampleSelect1">
   <option>1</option>
   <option>2</option>
   <option>3</option>
   <option>4</option>
   <option>5</option>
  </select>
 </div>
```

```html
<!-- MULTIPLE SELECT OPTIONS -->

<div class="form-group">
  <label for="exampleSelect2">Example multiple select</label>
  <select multiple class="form-control" id="exampleSelect2">
    <option>1</option>
    <option>2</option>
    <option>3</option>
    <option>4</option>
    <option>5</option>
  </select>
</div>


<!-- TEXT AREA -->

<div class="form-group">
  <label for="exampleTextarea">Example textarea</label>
  <textarea class="form-control" id="exampleTextarea" rows="3"></textarea>
</div>


<!-- FILE UPLOAD INPUT -->

<div class="form-group">
  <label for="exampleInputFile">File input</label>
  <input type="file" class="form-control-file" id="exampleInputFile" aria-describedby="fileHelp">
  <small id="fileHelp" class="form-text text-muted">This is some placeholder block-level help text
for the above input. It's a bit lighter and easily wraps to a new line.</small>
</div>

<!-- RADIO BUTTONS -->

<fieldset class="form-group">
  <legend>Radio buttons</legend>
  <div class="form-check">
    <label class="form-check-label">
      <input type="radio" class="form-check-input" name="optionsRadios" id="optionsRadios1"
value="option1" checked>
      Option one is this and that&mdash;be sure to include why it's great
    </label>
  </div>


  <div class="form-check">
  <label class="form-check-label">
      <input type="radio" class="form-check-input" name="optionsRadios" id="optionsRadios2"
value="option2">
      Option two can be something else and selecting it will deselect option one
```

```
       </label>
    </div>




    <div class="form-check disabled">
    <label class="form-check-label">
       <input type="radio" class="form-check-input" name="optionsRadios" id="optionsRadios3"
value="option3" disabled>
       Option three is disabled
     </label>
    </div>




  </fieldset>



  <!-- CHECK BUTTON -->

  <div class="form-check">
    <label class="form-check-label">
     <input type="checkbox" class="form-check-input">
     Check me out
    </label>
  </div>



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


</form>
```

Note:
The <fieldset> tag is used to group related elements in a form.

Bootstrap: Navbars:

Navbars are nothing but Navigation Bars. Usually the navbars present on the top of the web page,which can be used for navigation purposes.

How to create Navbar Template:

```
<nav class="navbar navbar-default">

</nav>
```

How to add Brand to the Navbar:

```
1)  <nav class="navbar navbar-default">
2)     <div class="navbar-header">
3)        <a href="http://durgasoft.com" class="navbar-brand">DURGASOFT</a>
4)     </div>
5)  </nav>
```

How to add remaining items to the Navbar:

The remaining items will be added in the form of unordered list. Each List item acts as Navbar item

```
1)  <nav class="navbar navbar-default">
2)     <div class="navbar-header">
3)      <a href="http://durgasoft.com" class="navbar-brand">DURGASOFT</a>
4)     </div>
5)     <ul class="nav navbar-nav">
6)      <li> <a href="#">Home</a></li>
7)      <li> <a href="#">About Us</a></li>
8)      <li> <a href="#">Gallary</a></li>
9)      <li> <a href="#">Services</a></li>
10)    </ul>
11) </nav>
```

All these items will be added from Left Hand side

How to add items to the Right Hand Side:

These items also will be added in the form of unordered list.

```
1)  <nav class="navbar navbar-default">
2)     <div class="navbar-header">
3)      <a href="http://durgasoft.com" class="navbar-brand">DURGASOFT</a>
4)     </div>
5)     <ul class="nav navbar-nav">
6)      <li> <a href="#">Home</a></li>
7)      <li> <a href="#">About Us</a></li>
8)      <li> <a href="#">Gallary</a></li>
9)      <li> <a href="#">Services</a></li>
10)    </ul>
11)    <ul class="nav navbar-nav navbar-right">
12)     <li> <a href="#">Contact Us</a></li>
```

```
13)     <li> <a href="#">Logout</a></li>
14)     </ul>
15) </nav>
```

How to position navbar items properly:

We have to take all items inside container class.

```
1)  <nav class="navbar navbar-default">
2)   <div class="container">
3)     header/brand, items..
4)   </div>
5)  </nav>
```

Note: It is not recommended to take total navbar inside container class
```
<div class="container">
   <nav class="navbar navbar-default">
    ...
   </nav>

 </div>
```

How to fix navbar always at top even in scroll down:

```
<nav class="navbar navbar-default    navbar-fixed-top">
```

How to inverse color of Navbar:

```
<nav class="navbar navbar-default    navbar-fixed-top   navbar-inverse">
```

How to implement Hamburger to Navbar:

We have to enclose the collapsed items inside the following div tag.

```
1)  <div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">
2)          <ul class="nav navbar-nav">
3)           <li><a href="#">Home</a></li>
4)           <li><a href="#">About Us</a></li>
5)           <li><a href="#">Services</a></li>
6)           <li><a href="#">Services</a></li>
7)           <li><a href="#">Services</a></li>
8)          </ul>
9)          <ul class="nav navbar-nav navbar-right">
10)          <li><a href="#">Contact Us</a></li>
11)          <li><a href="#">Logout</a></li>
12)          </ul>
13) </div>
```

To add hamburger,we have to add the following tag inside <div class="navbar-header">

eg:

```
1)  <div class="navbar-header">
2)      <button type="button" class="navbar-toggle collapsed" data-
    toggle="collapse" data-target="#bs-example-navbar-collapse-1" aria-expanded="false">
3)          <span class="sr-only">Toggle navigation</span>
4)          <span class="icon-bar"></span>
5)          <span class="icon-bar"></span>
6)          <span class="icon-bar"></span>
7)      </button>
8)      <a href="http://durgasoftonline.com" class="navbar-brand">DURGASOFT</a>
9)  </div>
```

***Note:

To work Bootstrap navbar hamburger,compulsory Bootstrap Javascript must be required. But to work Bootstrap Javascript, jQuery must be required. Hence we have to include Bootstrap Java script and jQuery CDNs in our html.But order is important first jquery cdn followed by javascript cdn

<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo" crossorigin="anonymous"></script>

<script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js" integrity="sha384-Tc5IQib027qvyjSMfHjOMaLkfuWVxZxUPnCJA7l2mCWNIpG9mGCD8wGNIcPD7Txa" crossorigin="anonymous"></script>

We can write inside <body> tag anywhere.

Demo HTML:

```
1)  <!DOCTYPE html>
2)  <html lang="en" dir="ltr">
3)   <head>
4)    <!-- Latest compiled and minified CSS -->
5)    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css" integrity="sha384-BVYiiSIFeK1dGmJRAkycuHAHRg32OmUcww7on3RYdg4Va+PmSTsz/K68vbdEjh4u" crossorigin="anonymous">
6)    <meta charset="utf-8">
7)    <title></title>
8)   </head>
9)   <body>
10)  <nav class="navbar  navbar-default navbar-fixed-top  navbar-inverse">
11)   <div class="container">
```

```
12)        <div class="navbar-header">
13)          <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-target="#bs-example-navbar-collapse-1" aria-expanded="false">
14)            <span class="sr-only">Toggle navigation</span>
15)            <span class="icon-bar"></span>
16)            <span class="icon-bar"></span>
17)            <span class="icon-bar"></span>
18)            <span class="icon-bar"></span>
19)            <span class="icon-bar"></span>
20)          </button>
21)          <a href="http://durgasoftonline.com" class="navbar-brand">DURGASOFT</a>
22)        </div>
23)        <div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">
24)            <ul class="nav navbar-nav">
25)              <li><a href="#">Home</a></li>
26)              <li><a href="#">About Us</a></li>
27)              <li><a href="#">Services</a></li>
28)              <li><a href="#">Services</a></li>
29)              <li><a href="#">Services</a></li>
30)            </ul>
31)            <ul class="nav navbar-nav navbar-right">
32)              <li><a href="#">Contact Us</a></li>
33)              <li><a href="#">Logout</a></li>
34)            </ul>
35)        </div>
36)      </div>
37)
38)    </nav>
39)
40)
41)  <p></p><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br>
42)  <nav class="navbar navbar-default">
43) <div class="container-fluid">
44)  <!-- Brand and toggle get grouped for better mobile display -->
45)  <div class="navbar-header">
46)    <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-target="#bs-example-navbar-collapse-1" aria-expanded="false">
47)      <span class="sr-only">Toggle navigation</span>
48)      <span class="icon-bar"></span>
49)      <span class="icon-bar"></span>
50)      <span class="icon-bar"></span>
51)    </button>
52)    <a class="navbar-brand" href="#">Brand</a>
53)  </div>
54)
55)  <!-- Collect the nav links, forms, and other content for toggling -->
56)  <div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">
57)    <ul class="nav navbar-nav">
```

```html
58)       <li class="active"><a href="#">Link <span class="sr-only">(current)</span></a></li>
59)       <li><a href="#">Link</a></li>
60)       <li class="dropdown">
61)        <a href="#" class="dropdown-toggle" data-toggle="dropdown" role="button" aria-haspopup="true" aria-expanded="false">Dropdown <span class="caret"></span></a>
62)         <ul class="dropdown-menu">
63)          <li><a href="#">Action</a></li>
64)          <li><a href="#">Another action</a></li>
65)          <li><a href="#">Something else here</a></li>
66)          <li role="separator" class="divider"></li>
67)          <li><a href="#">Separated link</a></li>
68)          <li role="separator" class="divider"></li>
69)          <li><a href="#">One more separated link</a></li>
70)         </ul>
71)       </li>
72)      </ul>
73)      <form class="navbar-form navbar-left">
74)       <div class="form-group">
75)        <input type="text" class="form-control" placeholder="Search">
76)       </div>
77)       <button type="submit" class="btn btn-default">Submit</button>
78)      </form>
79)      <ul class="nav navbar-nav navbar-right">
80)       <li><a href="#">Link</a></li>
81)       <li class="dropdown">
82)        <a href="#" class="dropdown-toggle" data-toggle="dropdown" role="button" aria-haspopup="true" aria-expanded="false">Dropdown <span class="caret"></span></a>
83)         <ul class="dropdown-menu">
84)          <li><a href="#">Action</a></li>
85)          <li><a href="#">Another action</a></li>
86)          <li><a href="#">Something else here</a></li>
87)          <li role="separator" class="divider"></li>
88)          <li><a href="#">Separated link</a></li>
89)         </ul>
90)       </li>
91)      </ul>
92)    </div><!-- /.navbar-collapse -->
93)   </div><!-- /.container-fluid -->
94)  </nav>
95) <script src="https://code.jquery.com/jquery-3.3.1.slim.min.js" integrity="sha384-q8i/X+965DzO0rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo" crossorigin="anonymous"></script>
96) <!-- Latest compiled and minified JavaScript -->
97) <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js" integrity="sha384-Tc5IQib027qvyjSMfHjOMaLkfuWVxZxUPnCJA7l2mCWNIpG9mGCD8wGNIcPD7Txa" crossorigin="anonymous"></script>
98)
99)
```

```
100)       </body>
101)       </html>
```

Bootstrap: Grid System

Grid System is the most fundamental and commonly used concept of Bootstrap.
To display our application layout properly on multiple devices of multiple screen sizes like desktop,laptop,tab,mobile etc,we should go for grid system.

In Bootstrap we can split total screen into 12 columns. Within this 12 columns length we can take any number of elements of same size or different sizes.

eg:
12X1==>12 elements and each element is of 1 column length
6X2===>6 elements and each element is of 2 column length
4X3===>4 elements and each element is of 3 column length
e1X3+e2X4+e3X5==>total 3 elements
            First element is of 3 columns length
            Second element is of 4 columns length
            Third element is of 5 columns length

How to implement Grid:

We can implement grid by using 2 classes
1. row class: to define row

  <div class="row">

2. Within the row we can define columns by using the following class
   col-screenSize-noOfColumns

   The allowed screen sizes in Bootstrap 3 are:
     lg-->Large Size (like Desktop screens)
     md-->Medium Size (like Laptop screens)
     sm-->Small Size (like Tab screens)
     xs-->Extra Small Size (like Mobile screens)

   But in Bootstrap-4 Extra Large(xl) is also allowed.

eg:

```
1)       <div class="row">
2)         <div class="col-lg-3">Element-1</div>
3)         <div class="col-lg-3">Element-1</div>
4)         <div class="col-lg-3">Element-1</div>
5)         <div class="col-lg-3">Element-1</div>
6)       </div>
```

Here row contains 4 elements and each element taking 3 columns length.

demo.html:

```
1)  <!DOCTYPE html>
2)  <html lang="en" dir="ltr">
3)   <head>
4)    <link rel="stylesheet" href="Bootstrap.css">
5)    <meta charset="utf-8">
6)    <title></title>
7)    <style>
8)    .box{
9)     background:orange;
10)    border:1px solid blue;
11)   }
12)
13)   </style>
14)
15)  </head>
16)  <body>
17)   <div class="container">
18)        <div class="row">
19)         <div class="col-lg-3 box">Element-1</div>
20)         <div class="col-lg-3 box">Element-2</div>
21)         <div class="col-lg-3 box">Element-3</div>
22)         <div class="col-lg-3 box">Element-4</div>
23)        </div>
24)   </div>
25)
26)   </div>
27)  </body>
28) </html>
```

We can take elements of different column lengths also

```
1)  <div class="row">
2)          <div class="col-lg-3 box">Element-1</div>
3)          <div class="col-lg-6 box">Element-2</div>
4)          <div class="col-lg-3 box">Element-3</div>
5)  </div>
```

Note: The total column length per row should be:12

case-1: For medium or large screens each row should contains 4 elements

```
1)  <div class="row">
2)          <div class="col-md-3 box">Element-1</div>
3)          <div class="col-md-3 box">Element-2</div>
4)          <div class="col-md-3 box">Element-3</div>
```

```
5)            <div class="col-md-3 box">Element-4</div>
6)    </div>
```

Case-2: On every screen(ls,md,sm,xs) row should contain 3 elements

```
1)    <div class="row">
2)            <div class="col-xs-4 box">Element-1</div>
3)            <div class="col-xs-4 box">Element-2</div>
4)            <div class="col-xs-4 box">Element-3</div>
5)    </div>
```

xs means either extra small or higher

How to define Grid for multiple screens simultaneously:

eg:
    For Large screens 6 Elements
    For Medium Screens 4 Elements
    For Small Screens 3 Elements
    For Extra Small Screens 2 Elements

```
1)    <div class="row">
2)        <div class="col-lg-2 col-md-3 col-sm-4 col-xs-6 box">Element-1</div>
3)        <div class="col-lg-2 col-md-3 col-sm-4 col-xs-6 box">Element-2</div>
4)        <div class="col-lg-2 col-md-3 col-sm-4 col-xs-6 box">Element-3</div>
5)        <div class="col-lg-2 col-md-3 col-sm-4 col-xs-6 box">Element-4</div>
6)        <div class="col-lg-2 col-md-3 col-sm-4 col-xs-6 box">Element-5</div>
7)        <div class="col-lg-2 col-md-3 col-sm-4 col-xs-6 box">Element-6</div>
8)    </div>
```

Nested Grids:

Inside a grid,we can define another grid,which is nothing but Nested Grid.
Nested Grid: Grid inside Grid

Demo:

```
1)    <!DOCTYPE html>
2)    <html lang="en" dir="ltr">
3)     <head>
4)      <link rel="stylesheet" href="Bootstrap.css">
5)      <meta charset="utf-8">
6)      <title></title>
7)      <style>
8)      .box{
9)        background:orange;
10)       border:1px solid blue;
```

```
11)    }
12)
13)    </style>
14)  </head>
15)  <body>
16)   <div class="container">
17)    <div class="row">
18)     <div class="col-lg-6 box">
19)      <div class="row">
20)       <div class="col-lg-4 box">Nested Element-1</div>
21)       <div class="col-lg-4 box">Nested Element-2</div>
22)       <div class="col-lg-4 box">Nested Element-3</div>
23)
24)      </div>
25)
26)     </div>
27)     <div class="col-lg-6 box">Element-2 </div>
28)    </div>
29)
30)   </div>
31)
32)  </body>
33) </html>
```

Bootstrap Photo Gallery Application:

step-1: Add css,jquery and java script cdn files to our html inside the <head> tag

```
1)  <head>
2)  <!-- To link our css to HTML -->
3)    <link rel="stylesheet" href="gallery2.css">
4)
5)  <!-- Latest compiled and minified CSS -->
6)    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css" integrity="sha384-BVYiiSIFeK1dGmJRAkycuHAHRg32OmUcww7on3RYdg4Va+PmSTsz/K68vbdEjh4u" crossorigin="anonymous">
7)
8)  <!-- For Font Awesome (icons) -->
9)    <link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.1.0/css/all.css" integrity="sha384-lKuwvrZot6UHsBSfcMvOkWwlCMgc0TaWr+30HWe3a4ltaBwTZhyTEggF5tJv8tbt" crossorigin="anonymous">
10) </head>
```

step-2: Add jumbotron to our HTML inside <body> tag

```
1)  <div class="container">
2)      <div class="jumbotron">
3)        <h1> Heaven Photo Gallery</h1>
4)        <p>This is short cut to go to heaven... already crores of people tested... why don't you test</p>
5)      </div>
6)    </div>
```

step-3: Add camera icon(fontawesome) inside <h1> tag of jumbotron

<h1><i class="fas fa-camera"></i> Heaven Photo Gallery</h1>

step-4: Add Navigation Bar to the html at the top

```
1)  <nav class="navbar  navbar-default  navbar-fixed-top " id="xxx">
2)    <div class="container">
3)      <div class="navbar-header">
4)        <a href="http://durgasoftonline.com" class="navbar-brand" id="yyy"> DURGABAR</a>
5)      </div>
6)      <div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">
7)        <ul class="nav navbar-nav">
8)  <li><a href="#">Home</a></li>
9)  <li><a href="#">About Us</a></li>
10)  <li><a href="#">Services</a></li>
11)      </ul>
12)      <ul class="nav navbar-nav navbar-right">
13)        <li><a href="#">Contact Us</a></li>
14)        <li><a href="#">Logout</a></li>
15)      </ul>
16)    </div>
17)  </div>
18) </nav>
```

step-5: Add picture icon(fontawesome) inside <a> tag of navbar for our brand

 DURGABAR

step-6: Add hamburger button to our navbar inside navbar-header class <div> tag at the top for responsive navbar

```
1)  <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-target="#bs-example-navbar-collapse-1" aria-expanded="false">
2)    <span class="sr-only">Toggle navigation</span>
3)      <span class="icon-bar"></span>
```

```
4)        <span class="icon-bar"></span>
5)        <span class="icon-bar"></span>
6)        <span class="icon-bar"></span>
7)  </button>
```

step-7: Add Grid after jumbotron's **<div>** tag

```
1)  <div class="row">
2)    <div class="col-lg-4 col-sm-6">
3)      <div class="thumbnail"><img src="heaven.jpg" alt=""> </div>
4)    </div>
5)    <div class="col-lg-4 col-sm-6">
6)      <div class="thumbnail"><img src="heaven.jpg" alt=""> </div>
7)    </div>
8)    <div class="col-lg-4 col-sm-6">
9)      <div class="thumbnail"><img src="heaven.jpg" alt=""> </div>
10)   </div>
11)   <div class="col-lg-4 col-sm-6">
12)     <div class="thumbnail"><img src="heaven.jpg" alt=""> </div>
13)   </div>
14)   <div class="col-lg-4 col-sm-6">
15)     <div class="thumbnail"><img src="heaven.jpg" alt=""> </div>
16)   </div>
17)   <div class="col-lg-4 col-sm-6">
18)     <div class="thumbnail"><img src="heaven.jpg" alt=""> </div>
19)   </div>
20)   <div class="col-lg-4 col-sm-6">
21)     <div class="thumbnail"><img src="heaven.jpg" alt=""> </div>
22)   </div>
23)   <div class="col-lg-4 col-sm-6">
24)     <div class="thumbnail"><img src="heaven.jpg" alt=""> </div>
25)   </div>
26)   <div class="col-lg-4 col-sm-6">
27)     <div class="thumbnail"><img src="heaven.jpg" alt=""> </div>
28)   </div>
29) </div>
```

gallery2.css

step-8: Add padding in between navbar and jumbotron

```
1.  body{
2.    padding-top: 70px;
3.  }
```

step-9: Add css styles to navbar

```
1)  .navbar{
2)    /* just remove navbar-default from navbar */
```

```
3)    background: blue;
4)  }
5)  .navbar a{
6)  color:white;
7)  }
```

step-10: Add css styles to jumbotron

```
1)  .container .jumbotron {
2)    background:green;
3)    color:white;
4)  }
```

==

How to add Bootstrap Glyphicons to html:

Select the following tag and add to the html where ever it is required.

```
1)  <span class="glyphicon glyphicon-camera" aria-hidden="true"></span>
2)
3)  <span class="glyphicon glyphicon-picture
4)  " aria-hidden="true"></span>
```

class names will be changed from icon to icon

How to change jumbotron background color and text color:

```
1)  .jumbotron{
2)    background-color: red;
3)    color: blue;
4)  }
```

If it is not working then right click and inspect element on the element and choose the corresponding style.

```
1)  .container .jumbotron, .container-fluid .jumbotron {
2)    padding-right: 15px;
3)    padding-left: 15px;
4)    border-radius: 6px;
5)    background:red;
6)  }
```

How to add icons from fontawesome.com:

https://fontawesome.com/icons?from=io

Step-1: Add CDN to our html:

```
<link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.1.0/css/all.css"
integrity="sha384-
lKuwvrZot6UHsBSfcMvOkWwlCMgc0TaWr+30HWe3a4ltaBwTZhyTEggF5tJv8tbt"
crossorigin="anonymous">
```

Step-2: Add i tag where ever icon is required

```
<i class="fas fa-camera"></i>
user-plus
icon to icon only class name will be changed (eg camera)
```

Durga Dating App:

dating.html

step-1: Add all CDNs(Bootstrap,jQuery,JavaScript) and css to our html

```
1)  <head>
2)    <link rel="stylesheet" href="dating.css">
3)
4)    <link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.1.0/css/all.css" i
      ntegrity="sha384-
      lKuwvrZot6UHsBSfcMvOkWwlCMgc0TaWr+30HWe3a4ltaBwTZhyTEggF5tJv8tbt" crossorigi
      n="anonymous">
5)
6)    <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bo
      otstrap.min.css" integrity="sha384-
      BVYiiSIFeK1dGmJRAkycuHAHRg32OmUcww7on3RYdg4Va+PmSTsz/K68vbdEjh4u" crossori
      gin="anonymous">
7)  </head>
```

step-2: Add Grid to our HTML with h1,h3 and hr tag

```
1)  <div class="container">
2)    <div class="row">
3)     <div class="col-lg-12">
4)      <div id="content">
5)       <h1 id="tc1">DURGA Dating App</h1>
6)       <h3 id="tc">Only for Seniour Citizens and Kids... Just for fun...</h3>
7)       <hr>
8)      </div>
9)     </div><!-- End col-lg-12 -->
10)    </div><!-- End row -->
11) </div><!-- End container -->
```

step-3: Add button to grid after <hr> tag

<button type="button" name="button" class="btn btn-default btn-lg"> Get Started</button>

step-4: Add fontawesome smile before "Get Started"

<button type="button" name="button" class="btn btn-default btn-lg"><i class="fas fa-smile"></i>&nbsp;Get Started</button>

Here &nbsp; --> for one space

step-5: Add navbar to HTML at the top

```
1)   <nav class="navbar navbar-default">
2)     <div class="container">
3)       <!-- Brand and toggle get grouped for better mobile display -->
4)       <div class="navbar-header">
5)       <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-target="#bs-example-navbar-collapse-1" aria-expanded="false">
6)         <span class="sr-only">Toggle navigation</span>
7)         <span class="icon-bar"></span>
8)         <span class="icon-bar"></span>
9)         <span class="icon-bar"></span>
10)      </button>
11)      <a class="navbar-brand" href="#">DURGA Dating App</a>
12)      </div>
13)      <!-- Collect the nav links, forms, and other content for toggling -->
14)      <div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">
15)      <ul class="nav navbar-nav">
16)       <li class="active"><a href="#">Home</a></li>
17)       <li><a href="#">About us</a></li>
18)       <li><a href="#">Services</a></li>
19)      </ul>
20)      <ul class="nav navbar-nav navbar-right">
21)       <li><a href="#">Sign up</a></li>
22)       <li><a href="#">Login</a></li>
23)      </ul>
24)      </div><!-- /.navbar-collapse -->
25)     </div><!-- /.container-fluid -->
26) </nav>
```

step-6: Add fontawesomes for Sign up and Login

Sign up&nbsp;<i class="fas fa-user-plus"> </i>
Login &nbsp;<i class="fas fa-sign-in-alt"> </i>

dating.css:

step-7: Add css styles for Grid's content

```
1)   #content {
2)      text-align: center;
3)      padding-top: 25%;
4)   }
```

step-8: Add background image and it's css styles

```
1)   body{
2)      background: url(https://images.unsplash.com/photo-1529610453335-
        db84df315b29?ixlib=rb-
        0.3.5&ixid=eyJhcHBfaWQiOjEyMDd9&s=1336a860de7a33d2f9b4281a13a48b68&auto=for
        mat&fit=crop&w=400&q=60);
3)      background-size: cover;
4)      background-position: center;
5)      background-repeat: no-repeat;
6)   }
```

step-9: Add css styles for <h1> tag using tc1 id

```
1)   #tc1{
2)      color:white;
3)      font-weight: 700;
4)      font-size: 5em;
5)   }
```

step-10: Add css styles for <h3> tag using tc id

```
1)   #tc{
2)      color:white;
3)   }
```

step-11: Add 100% height for remove bottom space while xs size

```
1)   html{
2)      height: 100%
3)   }
```

step-12: Add css styles for hr tag

```
1)   hr{
2)      width: 500px;
3)      border-bottom: 10px solid blue;
4)      border-top: 10px solid red;
5)   }
```

To get images
unsplash.com

<i class="fas fa-user-plus"></i>