

PRACTICAL NO 3

Date of Performance: 30-8-2022

Aim: To study Bootstrap framework for developing web site

Software Requirement: VScode, Bootstrap 4

Prerequisite: HTML5,CSS3,JAVASCRIPT

Objective: The aim of this experiment is that students will:

- Know the syntax of including Bootstrap features into the code.
- Understand different features of Bootstrap & its usage in code.

Outcome: After performing this experiment, students will be able to:

- Construct responsive websites using bootstrap.
- Present a website which has a better look and feel.

Theory:

Installation steps:

There are several ways developers can set up Bootstrap to include in their web development projects. We can install and set up Bootstrap in a project in the following ways:

1. The link to CDN approach

Content delivery networks, or CDNs, are code files hosted on the web that we can include in our project. To use this approach, one simply has to find a CDN for Bootstrap and include the code in the HTML head element.

2. Download compiled CSS and JS

- Another way of importing Bootstrap to HTML is to directly download the files locally to your HTML project folder. They can be downloaded from the official site of bootstrap.
- Move the folders to the same folder as your website HTML files. Add the Bootstrap links to your HTML file's header.

```
<link rel="stylesheet" a href="css/bootstrap.css"/>
```

```
<script src="js/bootstrap.js"/>
```

3. Through package managers(npm)

Another way to install Bootstrap into a project is by using a package manager. There are many package managers to choose from, but we will be illustrating with npm. We can easily and quickly install the Bootstrap framework with the npm package by simply typing in the following command.

- `npm install bootstrap`

What is Bootstrap?

Bootstrap is a [free, open source front-end](#) development framework for the creation of websites and web apps. Designed to enable responsive development of mobile-first websites, Bootstrap provides a collection of syntax for template designs.

What can you do with Bootstrap?

As a framework, Bootstrap includes the basics for responsive web development, so developers only need to insert the code into a pre-defined grid system. The [Bootstrap framework](#) is built on Hypertext Markup Language ([HTML](#)), cascading style sheets ([CSS](#)) and [JavaScript](#). Web developers using Bootstrap can build websites much faster without spending time worrying about basic commands and functions.

Advantages of Using Bootstrap.

1. Easy Initiation.
2. Responsiveness
3. Highly customizable.
4. Cross-browser compatibility.
5. Extremely user-centric.
6. Top-notch support.

Why to Learn Bootstrap?

- It is Faster and Easier way for Web-Development.
- It creates Platform-independent web-pages.
- It creates Responsive Web-pages.
- It designs the responsive web pages for mobile devices too.
- It is Free and open-source framework.

Problem Statement:

Design a small web site which includes following the following :-

Grid system, Forms, Button, Navbar, Breadcrumb, Jumbotron

Source Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Experiment 3 Bootstrap</title>
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/css/bootstrap.min.css">
  <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.0/jquery.min.js"></script>
  <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.1/js/bootstrap.min.js"></scrip
t>
  <style>
    body{
      background-color: lemonchiffon;
    }

    ul.breadcrumb {
      padding: 10px 16px;
      list-style: none;
      background-color: rosybrown;
    }

    ul.breadcrumb li {
      display: inline;
      font-size: 18px;
    }

    ul.breadcrumb li+li:before {
      padding: 8px;
      color: black;
      content: "/\00a0";
    }

    ul.breadcrumb li a {
      color: #0275d8;
      text-decoration: none;
    }
```

```
        ul.breadcrumb li a:hover {
            color: #01447e;
            text-decoration: underline;
        }
    </style>
</head>
<body>
    <nav class="navbar navbar-default" style="margin: 1%; border-radius: 50px;">
        <div class="container-fluid">
            <div class="navbar-header">
                <a class="navbar-brand" href="#">Navbar Icon</a>
            </div>
            <ul class="nav navbar-nav">
                <li id="0" class="active"><a href="#0"
onclick="changeJumb(0)">Home</a></li>
                <li id="1"><a href="#1" onclick="changeJumb(1)">Login</a></li>
                <li id="2"><a href="#2" onclick="changeJumb(2)">Details</a></li>
                <li id="3"><a href="#3" onclick="changeJumb(3)">Link</a></li>
            </ul>
        </div>
    </nav>
    <hr>
    <div class="jumbotron" style="margin: 1%; border-radius: 20px; padding: 1%;">
        <h1>Use of Jumbotron</h1>
        <p id="jumbp">We Are Currently on Home.</p>
    </div>
    <hr>
    <div style="margin: 1%; border-radius: 20px; ">
        <h1>Types of Button</h1>
        <button type="button" class="btn ">Basic</button>
        <button type="button" class="btn btn-default ">Default</button>
        <button type="button" class="btn btn-primary ">Primary</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>
    </div>
    <hr>
    <form action="javascript:alert('Form Submitted by '+
document.getElementById('name').value);"
        style="margin: 1%; border-radius: 20px; background-color:lightcoral;
padding: 1%;">
        <h1>Forms By BootStrap</h1>
```

```
<div class="form-group">
  <label for="name">Name:</label>
  <input type="name" class="form-control" id="name">
</div>
<div class="form-group">
  <label for="pwd">Password:</label>
  <input type="password" class="form-control" id="pwd">
</div>
<div class="checkbox">
  <label><input type="checkbox"> Remember me</label>
</div>
<button type="submit" class="btn btn-default">Enter</button>
</form>
<hr>
<div class="container">
  <div class="row" style="text-align: center;">
    <div class="col-lg-4 col-md-4 col-12"
style="background-color:#ffbe76; padding: 5px; height: 150px;">
      <h2>This is the use of Grid System.</h2>
    </div>
    <div class="col-lg-4 col-md-4 col-12"
style="background-color:#34bcc4; padding: 5px; height: 150px;">
      <h2>We have created 3 grids.</h2>
    </div>
    <div class="col-lg-4 col-md-4 col-12"
style="background-color:#ff7979; padding: 5px; height: 150px;">
      <h2>The bootstrap grid has 12 columns present</h2>
    </div>
  </div>
</div>
<hr>
<ul class="breadcrumb" style="margin: 1%; border-radius: 20px; ">
  <h1>Bredcrumbs for links</h1>
  <li><a href="#">Home</a></li>
  <li><a href="#">Pictures</a></li>
  <li><a href="#">Food</a></li>
  <li><a href="#">News</a></li>
</ul>
</body>
<script>
  function changeJumb(p) {
    if (parseInt(p) == 0) {
      document.getElementById("jumbp ").innerHTML = "We Are Currently on
Page Home. ";
```

```
        document.getElementById("0 ").classList.add("active ");
        document.getElementById("1 ").classList.remove("active ");
        document.getElementById("2 ").classList.remove("active ");
        document.getElementById("3 ").classList.remove("active ");
    } else if (parseInt(p) == 1) {
        document.getElementById("jumbp ").innerHTML = "We Are Currently on
Page 1. ";
        document.getElementById("1 ").classList.add("active ");
        document.getElementById("0 ").classList.remove("active ");
        document.getElementById("2 ").classList.remove("active ");
        document.getElementById("3 ").classList.remove("active ");
    } else if (parseInt(p) == 2) {
        document.getElementById("jumbp ").innerHTML = "We Are Currently on
Page 2. ";
        document.getElementById("2 ").classList.add("active ");
        document.getElementById("1 ").classList.remove("active ");
        document.getElementById("0 ").classList.remove("active ");
        document.getElementById("3 ").classList.remove("active ");
    } else if (parseInt(p) == 3) {
        document.getElementById("jumbp ").innerHTML = "We Are Currently on
Page 3. ";
        document.getElementById("3 ").classList.add("active ");
        document.getElementById("1 ").classList.remove("active ");
        document.getElementById("2 ").classList.remove("active ");
        document.getElementById("0 ").classList.remove("active ");
    }
}
</script>
</html>
```

Output:



Navbar Icon Home Login Details Link

Use of Jumbotron

We Are Currently on Home.

Types of Button

Default Primary Success Info Warning Danger

Forms By BootStrap

Name:

Password:

☐ Remember me

Enter



Forms By BootStrap

Name:

Password:

☐ Remember me

Enter

This is the use of Grid System.

We have created 3 grids.

The bootstrap grid has 12 columns present

Bredcrumbs for links

[Home](#) / [Pictures](#) / [Food](#) / [News](#)

Conclusion:

From this experiment we understand that bootstrap is a very useful library which relieves the user of hard and tedious work of coding simple and same elements repeatedly by providing numerous classes which do the same for us. We have learned how to implement Bootstrap into webpages.

Performance : (5+2)M	Journal : 3M	Lab Ethics : 2M	Attendance :3M	Total :15M	Faculty Sign