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This is to certify that the work entered in this journal
is the work of Mst. / Ms. SHAIKH KAYSAN
RAZAUDDIN

who has worked for the year 2021-2022 in the Computer
Laboratory.

Teacher In-Charge

Head of Department

Date : _____

Examiner

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Practical 1

Aim: Spicing Up the Bootstrap Carousel with CSS3 Animations.

Theory:

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.

Source Code:

Code for Bootstrap Carousel:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <link rel="stylesheet" href="style.css">
  <script src="main.js"></script>
  <title>Practical 1</title>
</head>

<body>
  <h1>CSS Slideshow </h1>
  <!-- Slideshow container -->
  <div class="slideshow-container">
    <!-- Full-width images with number and caption text -->
    <div class="mySlides fade">
      <div class="numbertext">1 / 3</div>
      
      <div class="text">Sunset</div>
    </div>

    <div class="mySlides fade">
      <div class="numbertext">2 / 3</div>
      
      <div class="text">Desert</div>
    </div>

    <div class="mySlides fade">
      <div class="numbertext">3 / 3</div>
      
      <div class="text">Night</div>
    </div>
  </div>
```

```
<!-- Next and previous buttons -->
<a class="prev" onclick="plusSlides(-1)">&#10094;</a>
<a class="next" onclick="plusSlides(1)">&#10095;</a>
</div>
<br>

<!-- The dots/circles -->
<div style="text-align:center">
  <span class="dot" onclick="currentSlide(1)"></span>
  <span class="dot" onclick="currentSlide(2)"></span>
  <span class="dot" onclick="currentSlide(3)"></span>
</div>
</body>
</html>
```

CSS Code:

```
* {box-sizing:border-box}

/* Slideshow container */
.slideshow-container {
  max-width: 1000px;
  position: relative;
  margin: auto;
}

/* Hide the images by default */
.mySlides {
  display: none;
}

/* Next & previous buttons */
.prev, .next {
  cursor: pointer;
  position: absolute;
  top: 50%;
  width: auto;
  margin-top: -22px;
  padding: 16px;
  color: white;
  font-weight: bold;
  font-size: 18px;
  transition: 0.6s ease;

  border-radius: 0 3px 3px 0;
```

```
user-select: none;
}

/* Position the "next button" to the right */
.next {
  right: 0;
  border-radius: 3px 0 0 3px;
}

/* On hover, add a black background color with a little bit see-through */
.prev:hover, .next:hover {
  background-color: rgba(0,0,0,0.8);
}

/* Caption text */
.text {
  color: #f2f2f2;
  font-size: 15px;
  padding: 8px 12px;
  position: absolute;
  bottom: 8px;
  width: 100%;
  text-align: center;
}

/* Number text (1/3 etc) */
.numbertext {
  color: #f2f2f2;
  font-size: 12px;
  padding: 8px 12px;
  position: absolute;
  top: 0;
}

/* The dots/bullets/indicators */
.dot {
  cursor: pointer;
  height: 15px;
  width: 15px;
  margin: 0 2px;
  background-color: #bbb;
  border-radius: 50%;
  display: inline-block;
  transition: background-color 0.6s ease;
```

```
}

.active, .dot:hover {
  background-color: #717171;
}

/* Fading animation */
.fade {
  -webkit-animation-name: fade;
  -webkit-animation-duration: 1.5s;
  animation-name: fade;
  animation-duration: 1.5s;
}

@-webkit-keyframes fade {
  from {opacity: .4}
  to {opacity: 1}
}

@keyframes fade {
  from {opacity: .4}
  to {opacity: 1}
}

h1 {
  text-align: center;
  font-family: Consolas;
  text-decoration-line: underline;
  text-decoration-style: wavy;
  text-decoration-color: red;
}
```

Javascript Code:

```
var slideIndex = 1;
showSlides(slideIndex);

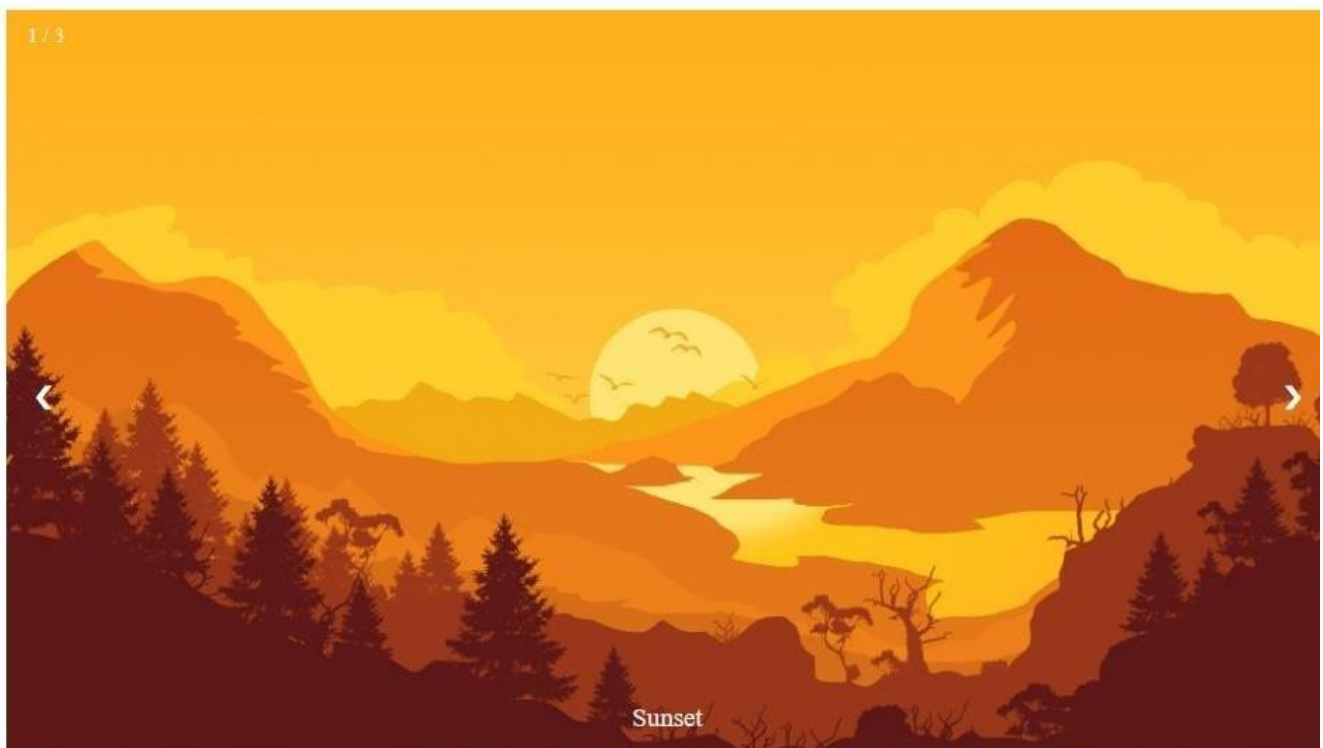
// Next/previous controls
function plusSlides(n) {
  showSlides(slideIndex += n);
}

// Thumbnail image controls
function currentSlide(n) {
  showSlides(slideIndex = n);
}
```

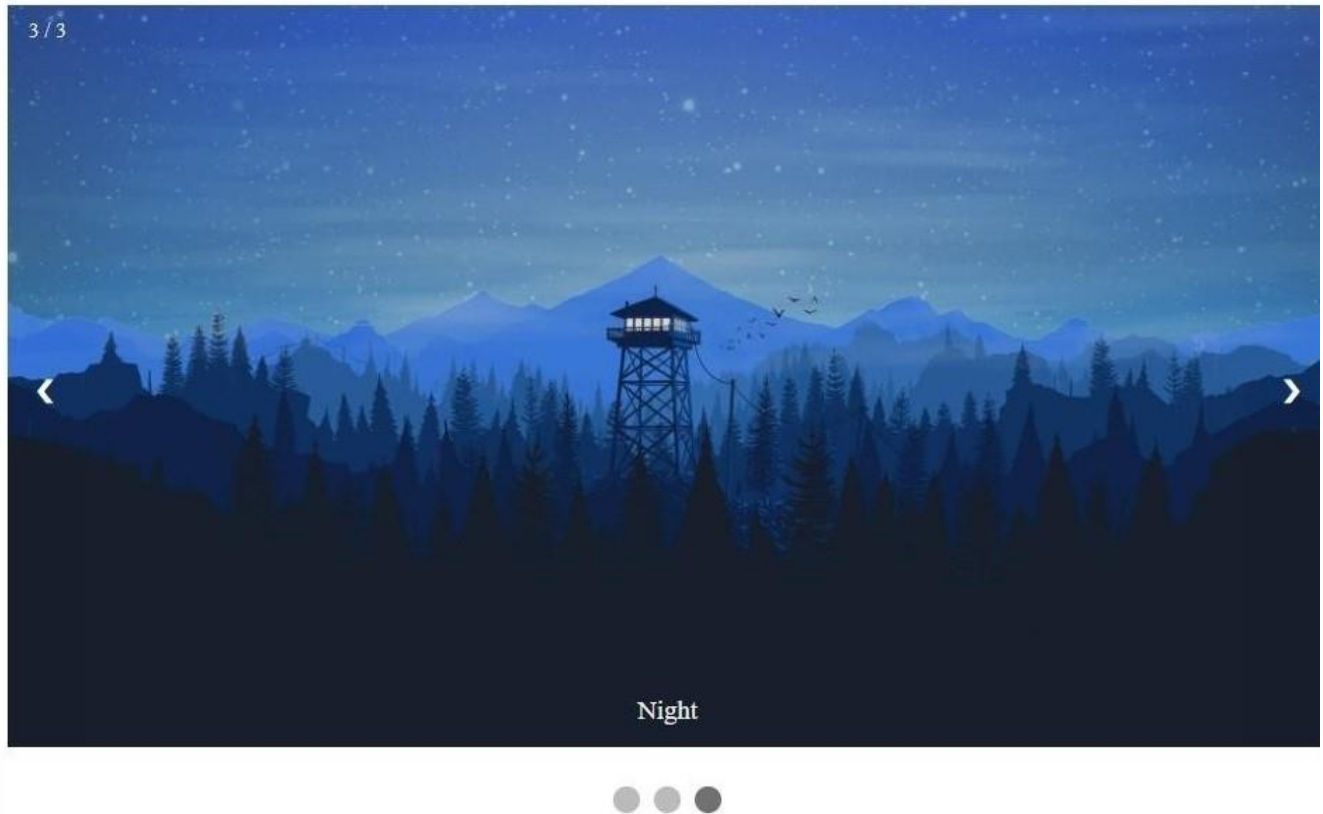
```
}  
  
function showSlides(n) {  
    var i;  
    var slides = document.getElementsByClassName("mySlides");  
    var dots = document.getElementsByClassName("dot");  
    if (n > slides.length) { slideIndex = 1 }  
    if (n < 1) { slideIndex = slides.length }  
    for (i = 0; i < slides.length; i++) {  
        slides[i].style.display = "none";  
    }  
    for (i = 0; i < dots.length; i++) {  
        dots[i].className = dots[i].className.replace(" active", "");  
    }  
    slides[slideIndex - 1].style.display = "block";  
    dots[slideIndex - 1].className += " active";  
}
```

Output:

CSS Slideshow



CSS Slideshow



Conclusion: We've successfully added CSS Animations to the Bootstrap Carousel.

Practical 2

Aim: A Full-screen Bootstrap Carousel with Random Initial Image.

Theory: A Bootstrap Carousel is a slideshow for rotating through series of contents. It is built with CSS and JavaScript. It works with a series of photos, images, texts, etc. It can be used as an image slider for showcasing the huge amount of contents within a small space on the web page, as it works on the principle of dynamic presentations. It also includes support for previous/next controls and indicators.

Source Code:

```
<!doctype html>
<html lang="en">
<head>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">

  <!-- Bootstrap CSS -->
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css"
        rel="stylesheet" integrity="sha384-
        EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTWFspD3yD65VohhpuaComLA
        SjC" crossorigin="anonymous">

  <title>Practical 1</title>
</head>
<body>
  <h1 style="font-family:Edwardian Script ITC;font-size:
    80px;"><center>University</center></h1>
  <div class="alert alert-warning alert-dismissible fade show" role="alert">
    <strong>Admission open!!</strong>
    <button type="button" class="btn-close" data-bs-dismiss="alert" aria-
      label="Close"></button>
  </div>
  <!-- Optional JavaScript; choose one of the two! -->

  <!-- Option 1: Bootstrap Bundle with Popper -->
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js"
        integrity="sha384-MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSf
        AP+JcXn/tWtIaxVXM" crossorigin="anonymous"></script>

  <nav class="navbar navbar-expand-lg navbar-light bg-light">
    <div class="container-fluid">
      <a class="navbar-brand" href="#"></a>
```

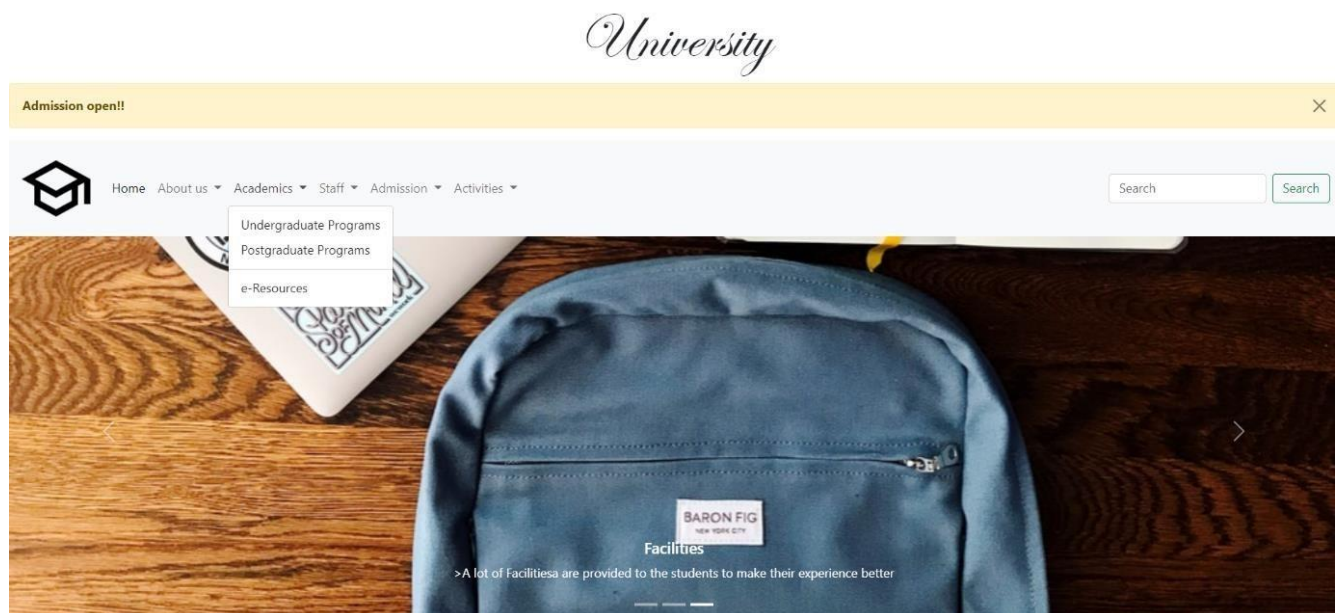
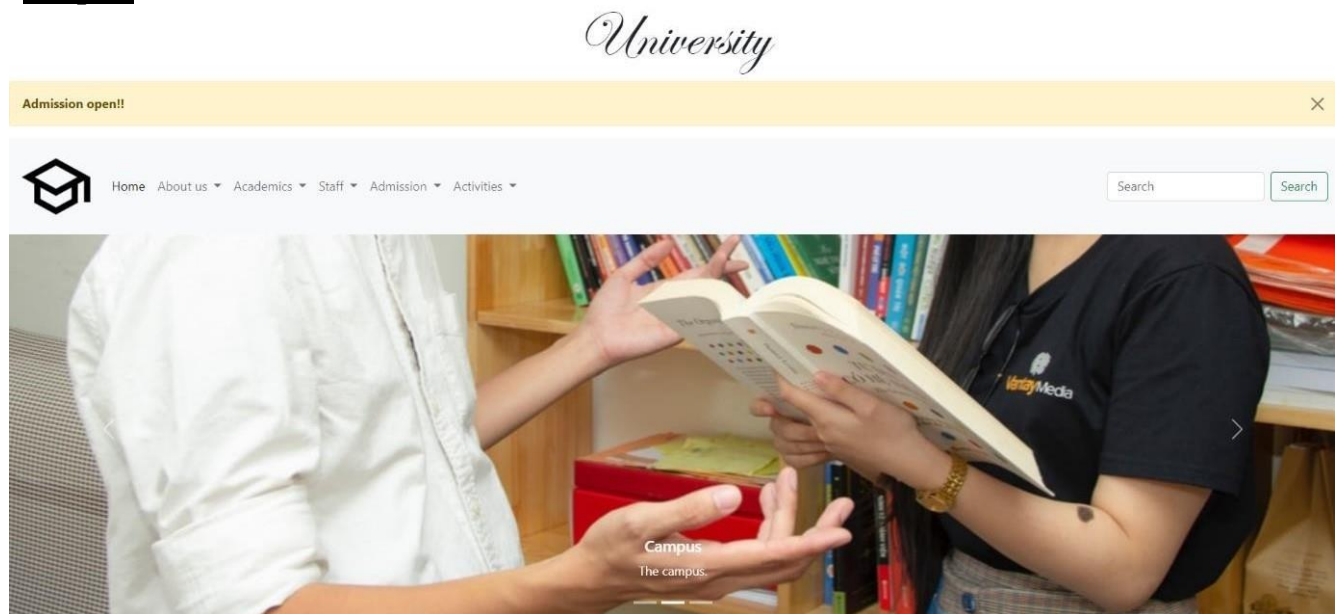
```
<button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-
target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-
expanded="false" aria-label="Toggle navigation">
<span class="navbar-toggler-icon"></span>
</button>
<div class="collapse navbar-collapse" id="navbarSupportedContent">
<ul class="navbar-nav me-auto mb-2 mb-lg-0">
<li class="nav-item">
<a class="nav-link active" aria-current="page" href="#">Home</a>
</li>
<li class="nav-item dropdown">
<a class="nav-link dropdown-toggle" href="#" id="navbarDropdown"
role="button" data-bs-toggle="dropdown" aria-expanded="false">
About us
</a>
<ul class="dropdown-menu" aria-labelledby="navbarDropdown">
<li><a class="dropdown-item" href="#">About University</a></li>
<li><a class="dropdown-item" href="#">Our Missions and Visions</a></li>
<li><hr class="dropdown-divider"></li>
<li><a class="dropdown-item" href="#">Academic Council</a></li>
</ul>
</li>
<li class="nav-item dropdown">
<a class="nav-link dropdown-toggle" href="#" id="navbarDropdown"
role="button" data-bs-toggle="dropdown" aria-expanded="false">
Academics
</a>
<ul class="dropdown-menu" aria-labelledby="navbarDropdown">
<li><a class="dropdown-item" href="#">Undergraduate Programs</a></li>
<li><a class="dropdown-item" href="#">Postgraduate Programs</a></li>
<li><hr class="dropdown-divider"></li>
<li><a class="dropdown-item" href="#">e-Resources</a></li>
</ul>
</li>
<li class="nav-item dropdown">
<a class="nav-link dropdown-toggle" href="#" id="navbarDropdown"
role="button" data-bs-toggle="dropdown" aria-expanded="false">
Staff
</a>
<ul class="dropdown-menu" aria-labelledby="navbarDropdown">
<li><a class="dropdown-item" href="#">Staff Awards & Recognition</a></li>
<li><a class="dropdown-item" href="#">Teacher Statistics</a></li>
<li><hr class="dropdown-divider"></li>
<li><a class="dropdown-item" href="#">Undergraduate Staff Members</a></li>
</ul>
```

```
</li>
<li class="nav-item dropdown">
  <a class="nav-link dropdown-toggle" href="#" id="navbarDropdown"
  role="button" data-bs-toggle="dropdown" aria-expanded="false">
    Admission
  </a>
  <ul class="dropdown-menu" aria-labelledby="navbarDropdown">
    <li><a class="dropdown-item" href="#">Degree Courses Admission</a></li>
    <li><a class="dropdown-item" href="#">Postgraduate Courses
      Admission</a></li>
    <li><hr class="dropdown-divider"></li>
    <li><a class="dropdown-item" href="#">Student Teacher Ratio</a></li>
  </ul>
</li>
<li class="nav-item dropdown">
  <a class="nav-link dropdown-toggle" href="#" id="navbarDropdown"
  role="button" data-bs-toggle="dropdown" aria-expanded="false">
    Activities
  </a>
  <ul class="dropdown-menu" aria-labelledby="navbarDropdown">
    <li><a class="dropdown-item" href="#">Department of Computer Science :
      Activities</a></li>
    <li><a class="dropdown-item" href="#">Department of Information Technology
      : Activities</a></li>
    <li><hr class="dropdown-divider"></li>
    <li><a class="dropdown-item" href="#">Department of Mathematics : Activities
      </a></li>
  </ul>
</li>
</ul>
<form class="d-flex">
  <input class="form-control me-2" type="search" placeholder="Search" aria-
  label="Search">
  <button class="btn btn-outline-success" type="submit">Search</button>
</form>
</div>
</div>
</nav>

<div id="carouselExampleCaptions" class="carousel slide" data-bs-ride="carousel">
  <div class="carousel-indicators">
    <button type="button" data-bs-target="#carouselExampleCaptions" data-bs-slide-
    to="0" class="active" aria-current="true" aria-label="Slide 1"></button>
    <button type="button" data-bs-target="#carouselExampleCaptions" data-bs-slide-
    to="1" aria-label="Slide 2"></button>
```

```
<button type="button" data-bs-target="#carouselExampleCaptions" data-bs-slide-to="2"
  aria-label="Slide 3"></button>
</div>
<div class="carousel-inner">
  <div class="carousel-item active">
    
    <div class="carousel-caption d-none d-md-block">
      <h5>Facilities</h5>
      <p>A lot of Facilities are provided to the students to make their experience better
      </p>
    </div>
  </div>
  <div class="carousel-item">
    
    <div class="carousel-caption d-none d-md-block">
      <h5>Campus</h5>
      <p>The campus.</p>
    </div>
  </div>
  <div class="carousel-item">
    
    <div class="carousel-caption d-none d-md-block">
      <h5>Facilities</h5>
      <p>>A lot of Facilitiesa are provided to the students to make their experience
      better</p>
    </div>
  </div>
</div>
<button class="carousel-control-prev" type="button" data-bs-
  target="#carouselExampleCaptions" data-bs-slide="prev">
  <span class="carousel-control-prev-icon" aria-hidden="true"></span>
  <span class="visually-hidden">Previous</span>
</button>
<button class="carousel-control-next" type="button" data-bs-
  target="#carouselExampleCaptions" data-bs-slide="next">
  <span class="carousel-control-next-icon" aria-hidden="true"></span>
  <span class="visually-hidden">Next</span>
</button>
</div>
</body>
</html>
```

Output:



Conclusion: We've successfully built a Full-screen Bootstrap Carousel with Random InitialImage.

Practical 3

Aim: Build a Responsive Bootstrap Website using Bootstrap.

Theory: A responsive website means that the site can be opened on multiple screen sizes that are relevant to all kind of devices that we use daily. The ability to showcase your website to a wide variety of people with diverse devices means improved user experience.

A responsive web design will automatically adjust for different screen sizes and viewports.

Source Code:

```
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">

  <meta name="viewport" content="width=device-width, initial-scale=1">

  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.css" rel="stylesheet"
    integrity="sha384-
EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTWFspd3yD65VohhpuuCOMLASjC"
crossorigin="anonymous">

  <title>Kaysan</title>
</head>
<body>
  <!-- NAVBAR -->
  <nav class="navbar navbar-expand-lg navbar-light bg-light">

    <div class="container-fluid">
      <a class="navbar-brand" href="https://kaysanshaikh.netlify.app">Kaysan</a>

      <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-
target="#navbarNavDropdown"
      aria-controls="navbarNavDropdown" aria-expanded="false" aria-label="Toggle
navigation">

        <span class="navbar-toggler-icon"></span>
      </button>

      <div class="collapse navbar-collapse" id="navbarNavDropdown">
        <ul class="navbar-nav">

          <li class="nav-item">
```

```
<a class="nav-link active" aria-current="page"
href="https://kaysanshaikh.netlify.app">Home</a>

</li>
<li class="nav-item">

    <a class="nav-link active" href="http://github.com/kaysanshaikh0"
target="_blank">Github</a>

    </li>
<li class="nav-item">

    <a class="nav-link active" href="https://rectify.netlify.app"
target="_blank">Blog</a>

    </li>
<li class="nav-item dropdown">

    <a class="nav-link active dropdown-toggle" href="#"
id="navbarDropdownMenuLink" role="button"
data-bs-toggle="dropdown" aria-expanded="false">
        Dropdown
    </a>
    <ul class="dropdown-menu" aria-labelledby="navbarDropdownMenuLink">
        <li><a class="dropdown-item" href="#">Action</a></li>

        <li><a class="dropdown-item" href="#">Another action</a></li>
        <li><a class="dropdown-item" href="#">Something else here</a></li>
    </ul>
    </li>
</ul>
</div>
</div>
</nav>
<div class="container">

    <h1>Hello, world!</h1>

    <p>Lorem ipsum, dolor sit amet consectetur adipisicing elit. Voluptatibus totam optio cum mollitia
officiis
        libero impedit enim tempore vero aliquam sed dolores minima quos, facilis sunt aut consequuntur
amet iure?
    </p>
```

<!-- OFF-CANVAS BUTTON -->

<button class="btn btn-danger" type="button" data-bs-toggle="offcanvas" data-bs-target="#offcanvasTop"

aria-controls="offcanvasTop">Message</button>

<div class="offcanvas offcanvas-top" tabindex="-1" id="offcanvasTop" aria-labelledby="offcanvasTopLabel">

<div class="offcanvas-header">

<h5 id="offcanvasTopLabel">Welcome</h5>

<button type="button" class="btn-close text-reset" data-bs-dismiss="offcanvas" aria-label="Close"></button>

</div>

<div class="offcanvas-body">

Hello there ! While you are here visit my website.
It has a dark mode toggle!

</div>

</div>

<hr>

<!-- CAROUSEL -->

<div id="carouselExampleIndicators" class="carousel slide" data-bs-ride="carousel">

<div class="carousel-indicators">

<button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="0" class="active"

aria-current="true" aria-label="Slide 1"></button>

<button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="1"

aria-label="Slide 2"></button>

<button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="2"

aria-label="Slide 3"></button>

</div>

<div class="carousel-inner">

<div class="carousel-item active">

 <div class="carousel-item">

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

 </div>
</div>

<button class="carousel-control-prev" type="button" data-bs-
target="#carouselExampleIndicators"

 data-bs-slide="prev">

 Previous
</button>

<button class="carousel-control-next" type="button" data-bs-
target="#carouselExampleIndicators"

 data-bs-slide="next">

 Next
</button>

</div>
<hr>

<h1>Cards</h1>
<div class="row">

 <div class="col-sm-4">
 <div class="card" style="width: 18rem;">

 <div class="card-body">

 <h5 class="card-title">Card title</h5>

 <p class="card-text">Some quick example text to build on the card title
 and make up the bulk of the card's content.</p>
 </div>
 </div>
 </div>
</div>

```

```

 Go somewhere
 </div>

</div>
</div>

<div class="col-sm-4">
 <div class="card" style="width: 18rem;">

 <div class="card-body">
 <h5 class="card-title">Card title</h5>

 <p class="card-text">Some quick example text to build on the card title
 and make up the bulk of the
 card's content.</p>

 Go somewhere
 </div>
 </div>
</div>

<div class="col-sm-4">
 <div class="card" style="width: 18rem;">

 <div class="card-body">
 <h5 class="card-title">Card title</h5>

 <p class="card-text">Some quick example text to build on the card title
 and make up the bulk of the
 card's content.</p>

 Go somewhere
 </div>
 </div>
</div>
```

</div>  
<hr>

<!-- FORM -->  
<h2>Fill the form below to get in touch!</h2>

<br>  
<form class="row g-3">

<div class="col-md-6">  
<input type="text" class="form-control" id="firstName" placeholder="First Name">

</div>  
<div class="col-md-6">

<input type="text" class="form-control" id="lastName" placeholder="First Name">  
</div>

<div class="col-md-6">  
<label for="inputEmail4" class="form-label">Email</label>  
<input type="email" class="form-control" id="inputEmail4">  
</div>

<div class="col-md-6">  
<label for="inputPassword4" class="form-label">Password</label>  
<input type="password" class="form-control" id="inputPassword4">  
</div>

<div class="col-12">  
<label for="inputAddress" class="form-label">Address</label>

<input type="text" class="form-control" id="inputAddress" placeholder="Flat,Society, Street  
Name">

</div>  
<div class="col-md-6">

<label for="inputCity" class="form-label">City</label>  
<input type="text" class="form-control" id="inputCity">  
</div>

<div class="col-md-4">  
<label for="inputState" class="form-label">State</label>

```
<select id="inputState" class="form-select">
 <option selected>Choose...</option>
 <option>...</option>

</select>
</div>

<div class="col-md-2">
 <label for="inputZip" class="form-label">Pin Code</label>
 <input type="text" class="form-control" id="inputZip">

</div>

<div class="col-12">
 <button type="submit" class="btn btn-success">Submit</button>

</div>
<hr>
</form>
</div>

<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.min.js"
 integrity="sha384-
 MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/tWtIaxVXM"
 crossorigin="anonymous"></script>

</body>
</html>
```

**Output:**

Meet Home Github Blog Dropdown ▾

Hello, world

Lorem ipsum, dolor sit ame  
aut consequuntur amet iure

- Action
- Another action
- Something else here

elit. Voluptatibus totam optio cum mollitia officiis libero impedit enim tempore vero aliquam sed dolores minima quos, facilis sunt

Message




## Cards



**Card title**

Some quick example text to build on the card title and make up the bulk of the card's content.


[Go somewhere](#)



**Card title**

Some quick example text to build on the card title and make up the bulk of the card's content.

[Go somewhere](#)



**Card title**

Some quick example text to build on the card title and make up the bulk of the card's content.

[Go somewhere](#)

---

Fill the form below to get in touch!

First Name	First Name	
Email	Password	
Address		
Flat, Society, Street Name		
City	State	Pin Code
	Choose... ▾	
<input type="submit" value="Submit"/>		

---

**Conclusion:** We've successfully built a Responsive Bootstrap Website using Bootstrap.

### **Practical 4**

**Aim:** Develop a Shopping List using AngularJS

**Theory:**

AngularJS is a JavaScript framework. It can be added to an HTML page with a <script> tag. AngularJS extends HTML attributes with Directives, and binds data to HTML with Expressions.

**Source Code:**

```
<!DOCTYPE html>

<html>

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/angular.min.js"></script>
<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">

<body>

<script>
var app = angular.module("myShoppingList", []);
app.controller("myCtrl", function($scope) {
 $scope.products = ["Milk", "Bread", "Cheese"];
 $scope.addItem = function () {
 $scope.errortext = "";
 if (!$scope.addMe) {return;}
 if ($scope.products.indexOf($scope.addMe) == -1) {
 $scope.products.push($scope.addMe);
 } else {
 $scope.errortext = "The item is already in your shopping list.";
 }
 }
 $scope.removeItem = function (x) {
 $scope.errortext = "";
 $scope.products.splice(x, 1);
 }
}
```



```
});
</script>

<div ng-app="myShoppingList" ng-cloak ng-controller="myCtrl" class="w3-card-2 w3-
margin" style="max-width:400px;">
 <header class="w3-container w3-light-grey w3-padding-16">
 <h3>My Shopping List</h3>
 </header>
 <ul class="w3-ul">
 <li ng-repeat="x in products" class="w3-padding-16">{{ x }}<span ng-
click="removeItem($index)" style="cursor:pointer;" class="w3-right w3-margin-
right">x

 <div class="w3-container w3-light-grey w3-padding-16">
 <div class="w3-row w3-margin-top">
 <div class="w3-col s10">
 <input placeholder="Add shopping items here" ng-model="addMe" class="w3-input
w3-border w3-padding">
 </div>
 <div class="w3-col s2">
 <button ng-click="addItem()" class="w3-btn w3-padding w3-green">Add</button>
 </div>
 </div>
 <p class="w3-text-red">{{ errortext }}</p>
 </div>
</div>
</body>
</html>
```

**Output:**

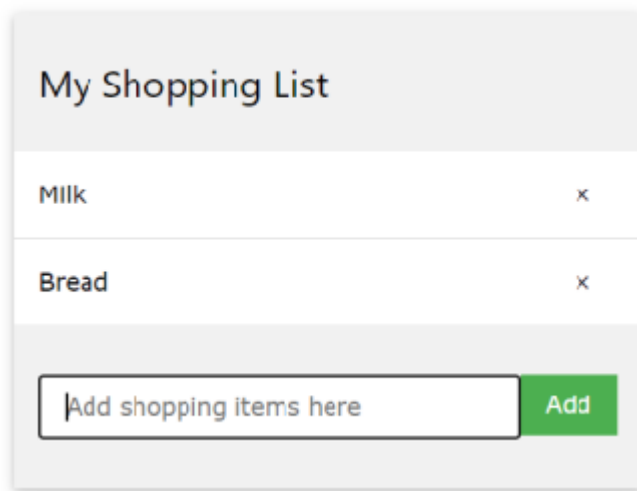
### My Shopping List

Milk	×
Sugar	×
Bread	×

The item is already in your shopping list.

### My Shopping List

Milk	×
Sugar	×
Bread	×



**Conclusion:** We've successfully developed a Shopping List using AngularJS.

### **Practical 5**

**Aim:** Develop AngularJS Cart application

**Theory:**

A shopping cart is basically a list that contains products selected by the user while they shop. When the user is finished shopping, they will usually examine the list to double-check that the items, quantities, and prices are correct. If they find any errors, they should be able to edit the list. Once they are ready, they should be able to check out. It uses **jQuery** and integrates well with **AngularJS** applications. The “shopping Cart” class contains all the logic and provides the object model needed to create flexible and attractive views.

**Source Code:**

```
<html ng-app = 'scartApp'>
<head>
<script src = "http://ajax.googleapis.com/ajax/libs/angularjs/1.4.8/angular.min.js"></script>
<title>Shopping Cart</title>
</head>
<body ng-controller = 'SCartController'>
<h1>Your Cart</h1>
<div>
 <table border = "1">
 <tr>
 <td>Product Name</td>
 <td>Quantity</td>
 <td>Price</td>
 <td>Total Price</td>
 <td>Operations</td>
 </tr>
 <tr ng-repeat="item in items">
 <td>{{ item.Name }}</td>
 <td><input ng-model='item.quantity'></td>
 <td>{{ item.price | currency }}</td>
 <td>{{ item.price * item.quantity | currency }}</td>
```

```

 <td><button ng-click="remove($number)">Remove</button></td>
 </tr>
</table>
</div>
<script>
 var sapp = angular.module('scartApp',[]);
 sapp.controller('SCartController',['$scope',function($scope){
 $scope.items=[
 {Name:'Sweatshirt', quantity:10, price:50},
 {Name:'T-shirt', quantity:15, price:27},
 {Name:'Jeans', quantity:8, price:75},
 {Name:'Shirt', quantity:20, price:30}
];
 $scope.remove = function(number){
 $scope.items.splice(number,1);
 }
 }]);
</script>
</body>
</html><button ng-click="remove($index)">Remove</button>

```

**Output:**

## Your Cart

Product Name	Quantity	Price	Total Price	Operations
Sweatshirt	10	\$50.00	\$500.00	<button>Remove</button>
T-shirt	15	\$27.00	\$405.00	<button>Remove</button>
Jeans	8	\$75.00	\$600.00	<button>Remove</button>
Shirt	20	\$30.00	\$600.00	<button>Remove</button>
<button>Remove</button>				

**Conclusion:** We've successfully created a shopping cart using Angularjs.

## **Practical 6**

**Aim:** Develop AngularJS Form application to demonstrate 5 events and validate data.

**Theory:** AngularJS has its own HTML events directives. The event directives allows us to run AngularJS functions at certain user events. An AngularJS event will not overwrite an HTML event, both events will be executed.

Forms in AngularJS provides data-binding and validation of input controls. Input controls are the HTML input elements like input elements, select elements, button elements, textarea elements.

AngularJS offers client-side form validation. AngularJS monitors the state of the form and input fields (input, textarea, select), and lets you notify the user about the current state. AngularJS also holds information about whether they have been touched, or modified, or not. You can use standard HTML5 attributes to validate input, or you can make your own validation functions

### **Source Code:**

```
<!DOCTYPE html>
<html>
<head>

 <title>
 AngularJs Form Validation
 </title>

 <script src="http://ajax.googleapis.com/ajax/libs/angularjs/1.4.8/angular.min.js"></script>
 <script>
 var app = angular.module('formApp', []);

 app.controller('formCtrl', function ($scope) {

 $scope.sendForm = function () {
 $scope.msg = 'Form Submitted Successfully';

 };
 $scope.getClass = function (color) {return
 color.toString();

 }

 });
 </script>
 <style>

 .valid.false {
```

```
 background: red;

 }

 .valid.true {
 background: green;
 }
 .error {
 color: red;
 }
 .center {
 display: flex;
 justify-content: center;
 }
 h3 {
 text-align: center;
 }
</style>
</head>

<body ng-app="formApp" ng-controller="formCtrl">

 <h3>AngularJS Form validation</h3>
 <div class="center">

 <!-- <h3>AngularJS Form validation</h3> -->
 <form name="personForm" ng-submit="sendForm()">
 <label for="name">Name</label>

 <input id="name" name="name" type="text" ng-model="person.name" required />
 Required!

 <label for="contact">Contact No</label>

 <input id="mobile" name="mobile" type="number" ng-model="person.mobile" required />

 Required
number!

 Invalid mobile!
```



```


<label for="email">Email</label>
<input id="email" name="email" type="email" ng-model="person.email" required />

Required!
Invalid Email!

<input type="checkbox" ng-model="terms" name="terms" id="terms" required />
<label for="terms">I Agree to the terms.</label>

You must agree to
theterms

<button type="submit">Submit Form</button>

{{ msg }}

</form>
</div>
</body>
</html>
```

**Output:**

**AngularJS Form validation**

Name  Required!

Contact No  Required number!

Email  Required!

☐ I Agree to the terms. You must agree to the terms

### **Practical 7**

**Aim:** Build a simple Express server using Node.js

**Theory:** Express.js is a Node.js web application server framework, which is specifically designed for building single-page, multi-page, and hybrid web applications. It has become the standard server framework for Node.js. Express is the backend part of something known as the MEAN stack. The MEAN is a free and open-source JavaScript software stack for building dynamic web sites and web applications which has the following components: MongoDB, Express.js, Angular.js, Node.js.

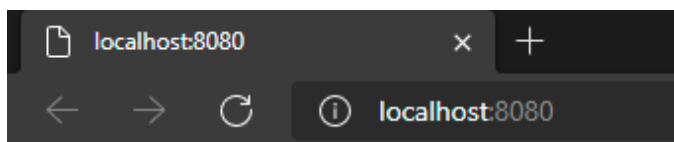
### **Source Code:**

```
const express =
require('express');const app =
express();
const PORT = 8080;

app.get('/', (req, res) => {
 res.send('SAY HELLO TO EXPRESS JS SERVERS!');
});

app.listen(PORT, () => {
 console.log(`Server running at: http://localhost:${PORT}/`);
});
```

### **Output:**



SAY HELLO TO EXPRESS JS SERVERS!

**Conclusion:** We've successfully built a simple Express server using Node.js.