

Experiment No. 06

Title: Create a webpage containing a carousel using bootstrap framework.

Objective: To study bootstrap framework.

Theory:

What is the Bootstrap?

- Bootstrap is a free front-end framework for faster and easier web development
- Bootstrap includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins
- Bootstrap also gives you the ability to easily create responsive designs

What is Responsive Web Design?

Responsive web design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.

Advantages of Bootstrap:

- **Easy to use:** Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
- **Responsive features:** Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
- **Mobile-first approach:** In Bootstrap 3, mobile-first styles are part of the core framework
- **Browser compatibility:** Bootstrap is compatible with all modern browsers (Chrome, Firefox, Internet Explorer, Edge, Safari, and Opera)

Where to Get Bootstrap?

There are two ways to start using Bootstrap on your own web site. You can:

- Download Bootstrap from getbootstrap.com
 - To download and host Bootstrap yourself, go to getbootstrap.com, and follow the instructions there
- Include Bootstrap from a CDN
 - We can include Bootstrap from a CDN (Content Delivery Network).
 - jsDelivr provides CDN support for Bootstrap's CSS and JavaScript:

```
<!-- Latest compiled and minified CSS -->
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet">

<!-- Latest compiled JavaScript -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"></script>
```

Create First Web Page With Bootstrap

1. **Add the HTML5 doctype:** Bootstrap uses HTML elements and CSS properties that require the HTML5 doctype. Always include the HTML5 doctype at the beginning of the page, along with the lang attribute and the correct character set:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Bootstrap5 Example</title>
    <meta charset="utf-8">
  </head>
</html>
```

2. **Bootstrap 5 is mobile-first**

Bootstrap 5 is designed to be responsive to mobile devices. Mobile-first styles are part of the core framework.

To ensure proper rendering and touch zooming, add the following <meta> tag inside the <head> element:

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

- The width=device-width part sets the width of the page to follow the screen-width of the device (which will vary depending on the device).
- The initial-scale=1 part sets the initial zoom level when the page is first loaded by the browser.

3. **Containers**

Bootstrap 5 also requires a containing element to wrap site contents. There are two container classes to choose from:

- The .container class provides a responsive fixed width container
- The .container-fluid class provides a full width container, spanning the entire width of the viewport



How To Create a Carousel

The following table shows classes used to create a basic carousel with indicators and controls:

Class	Description
<code>.carousel</code>	Creates a carousel
<code>.carousel-indicators</code>	Adds indicators for the carousel. These are the little dots at the bottom of each slide (which indicates how many slides there are in the carousel, and which slide the user are currently viewing)
<code>.carousel-inner</code>	Adds slides to the carousel
<code>.carousel-item</code>	Specifies the content of each slide
<code>.carousel-control-prev</code>	Adds a left (previous) button to the carousel, which allows the user to go back between the slides
<code>.carousel-control-next</code>	Adds a right (next) button to the carousel, which allows the user to go forward between the slides
<code>.carousel-control-prev-icon</code>	Used together with <code>.carousel-control-prev</code> to create a "previous" button
<code>.carousel-control-next-icon</code>	Used together with <code>.carousel-control-next</code> to create a "next" button
<code>.slide</code>	Adds a CSS transition and animation effect when sliding from one item to the next. Remove this class if you do not want this effect

The following example shows how to create a basic carousel with indicators and controls:

```
<!-- Carousel -->
<div id="demo" class="carousel slide" data-bs-ride="carousel">

  <!-- Indicators/dots -->
  <div class="carousel-indicators">
    <button type="button" data-bs-target="#demo" data-bs-slide-
to="0" class="active"></button>
    <button type="button" data-bs-target="#demo" data-bs-slide-
to="1"></button>
    <button type="button" data-bs-target="#demo" data-bs-slide-
to="2"></button>
  </div>

  <!-- The slideshow/carousel -->
  <div class="carousel-inner">
    <div class="carousel-item active">
      
    </div>
    <div class="carousel-item">
      
    </div>
    <div class="carousel-item">
      
    </div>
  </div>

  <!-- Left and right controls/icons -->
  <button class="carousel-control-prev" type="button" data-bs-
target="#demo" data-bs-slide="prev">
    <span class="carousel-control-prev-icon"></span>
  </button>
  <button class="carousel-control-next" type="button" data-bs-
target="#demo" data-bs-slide="next">
    <span class="carousel-control-next-icon"></span>
  </button>
```

Algorithm:

1. Design web page using html.
2. Add a carousal using bootstrap.

Key Concepts: Html DOM, JavaScript, Html form Validation