# Getting Started with Bootstrap

## Topics Covered:

- What is Bootstrap?
- What is Responsive web design?
- Advantages of using bootstrap.
- Different ways to use bootstrap.
- How to download bootstrap?
- How to use CDN in HTML documents?
- Advantages of using CDN.
- Containers.
- Types of containers.
- Important classes in containers.
- Responsive containers.

## Topics in Detail:

### What is 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 others, as well as optional JavaScript plugins.
- Bootstrap also gives you the ability to easily create responsive designs.

### 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, mobile-first styles are part of the core framework
- Browser compatibility: Bootstrap 5 is compatible with all modern browsers (Chrome, Firefox, Edge, Safari, and Opera).

## How to use Bootstrap:

There are two ways to start using Bootstrap 5 on your own website.
- Download Bootstrap 5 from getbootstrap.com
- Include Bootstrap 5 from a CDN

## Downloading Bootstrap:

- Go to https://getbootstrap.com/
- Follow the instructions in the document:
  https://getbootstrap.com/docs/5.2/getting-started/download/

## Bootstrap CDN:

- CDN stands for Content Delivery Network.
- The jsDelivr provides CDN support for Bootstrap's CSS and JavaScript.
- CDN can be included in the HTML code to use bootstrap.
- CDN Links:
  - ```html
    <!-- Latest compiled and minified CSS -->
    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet">
    ```
  - ```html
    <!-- Latest compiled JavaScript -->
    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"></script>
    ```
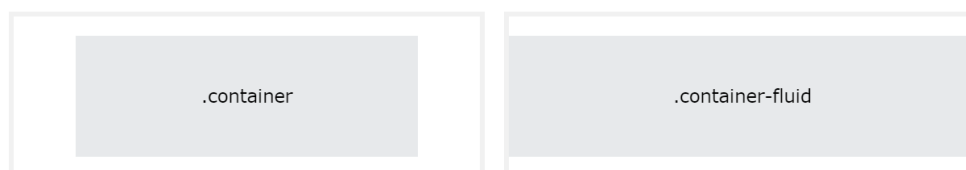
## Advantages of using CDN:

- Bootstrap from jsDelivr when visiting another site, it will be loaded from cache when they visit your site, which leads to faster loading time.
- Also, most CDN's will make sure that once a user requests a file from it, it will be served from the server closest to them, which also leads to faster loading time.

## Containers:

Bootstrap requires a containing element to wrap site contents. Containers are used to pad the content inside of them, and there are two container classes available:
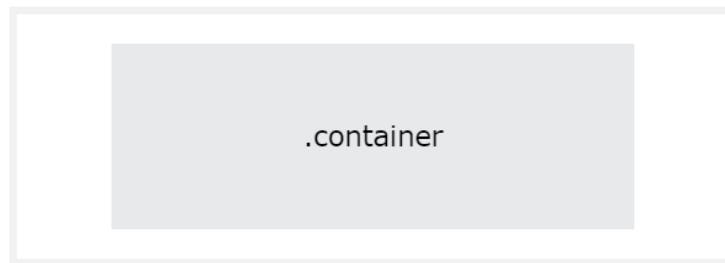1. The *.container* class provides a responsive fixed width container
2. The *.container-fluid* class provides a full width container, spanning the entire width of the viewport

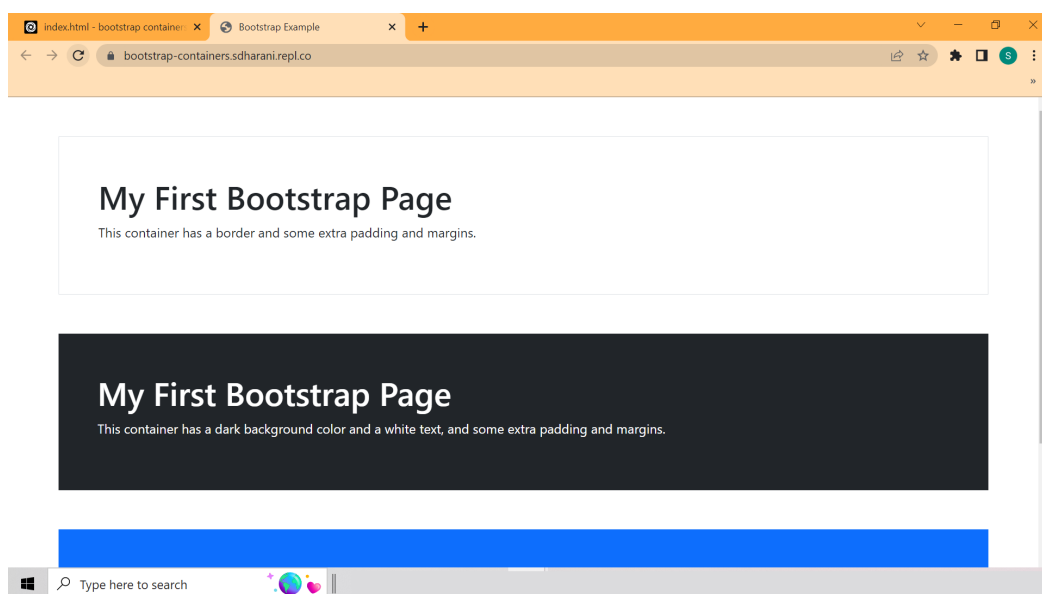|  |  |
|---|---|
| .container | .container-fluid |

## Fixed Container:

- Fixed Container is a **fixed-width** container.
- Fixed Container's width (max-width) will change on different screen sizes.

| | Extra small <576px | Small ≥576px | Medium ≥768px | Large ≥992px | Extra Large ≥1200px | XXL ≥1400px |
|---|---|---|---|---|---|---|
| max-width | 100% | 540px | 720px | 960px | 1140px | 1320px |

.container
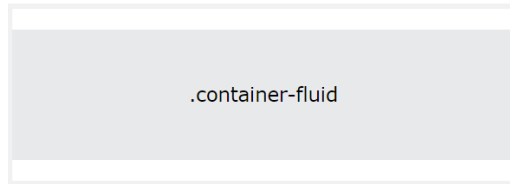
## Example:

```
<div class="container p-5 my-5 border">
  <h1>My First Bootstrap Page</h1>
  <p>This container has a border and some extra padding and margins.</p>
</div>
```
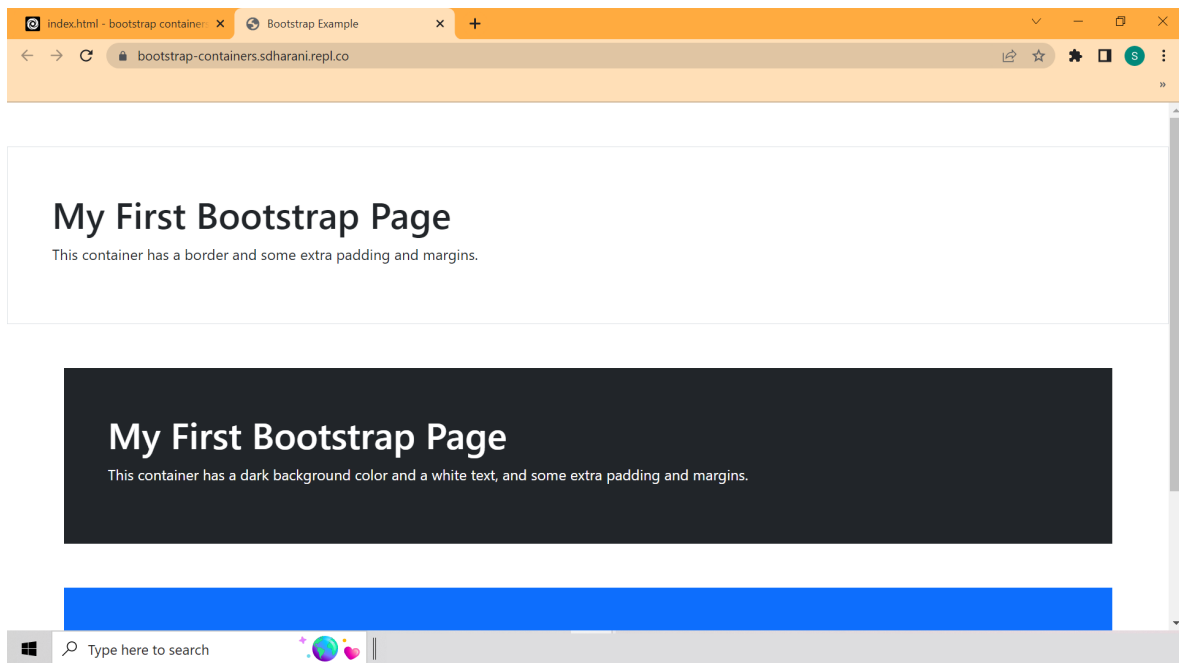
## Fluid Container:

- Fluid container is a full width container.
- Fluid containers will always span the entire width of the screen (width is always 100%).


.container-fluid

Example:

```html
<div class="container-fluid p-5 my-5 border">
  <h1>My First Bootstrap Page</h1>
  <p>This container has a border and some extra padding and margins.</p>
</div>
```

Important classes:

| Name | Class name | Description |
|------|-----------|-------------|
| Padding | pt-5 | Adds a large top padding |
| Margin | my-5 | Adds a large top margin |
| Border | border | Adds border to the container. |
| Background Color Dark | bg-dark | Adds a dark background color to the container. |
| Background Color Blue | bg-primary | Adds a dark blue background color to the container. |
| Text color White | text-white | Modifies the text color of the container to white. |

Responsive Containers:

| Class | Extra small <576px | Small ≥576px | Medium ≥768px | Large ≥992px | Extra large ≥1200px | XXL ≥1400px |
|-------|-------------------|--------------|---------------|--------------|---------------------|-------------|
| .container-sm | 100% | 540px | 720px | 960px | 1140px | 1320px |
| .container-md | 100% | 100% | 720px | 960px | 1140px | 1320px |
| .container-lg | 100% | 100% | 100% | 960px | 1140px | 1320px |
| .container-xl | 100% | 100% | 100% | 100% | 1140px | 1320px |
| .container-xxl | 100% | 100% | 100% | 100% | 100% | 1320px |