**HTML5**

*Markup Language*
**Content**

**CSS3**

*Style sheet Language*
**Presentation**

**JS**

*Programming Language*
**Behavior**

# Bootstrap

# 부트스트랩(Bootstrap)

- **반응형 웹사이트 제작을 위한 프론트엔드 <u>프레임워크</u>**
  - HTML, CSS 기반 디자인 템플릿과 JavaScript 플러인 포함

- **탄생 배경**
  - 서로 다른 인터페이스를 사용한 여러 개발자들의 공동 작업
  - 디자인 불일치, 관리 어려움, 방대한 코드량 → 일관성 유지 불가
  - 문제점 개선을 위해 트위터의 개발자와 UI 디자이너가 개발
  - 2011년 8월 깃허브 오픈

- **오픈 소스, 상업적 이용 가능**

# 부트스트랩의 장점

- Easy to use
  - HTML, CSS 기본지식을 가진 누구나 쉽게 접근이 가능

- Responsive features:
  - 반응형 CSS를 포함한 단일코드로 모든 디바이스에 적용 가능

- Mobile-first approach
  - 부트스트랩3 부터 모바일 겸용이 아닌 , 모바일 퍼스트 정책 반영

- Browser compatibility
  - 모든 최신 브라우저와 호환 (크롬 파이어 폭스, 인터넷 익스플로러, 사파리, 오페라)

# 부트스트랩 설치

- **Include Bootstrap 5 from a CDN(Content Delivery Network)**

```html
<!-- Latest compiled and minified CSS -->
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">

<!-- Latest compiled JavaScript -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>
```
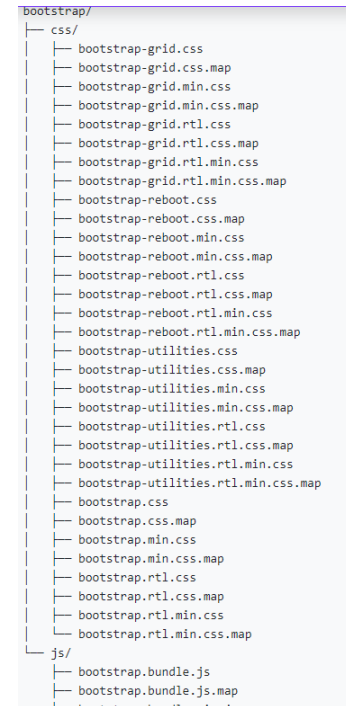
- **Download Bootstrap 5 from getbootstrap.com**

  - https://getbootstrap.com/docs/5.3/getting-started/download/

  - 부트스트랩 다운로드

  - 부트스트랩 예제 다운로드

    https://getbootstrap.kr/docs/5.1/examples/

```
bootstrap/
├── css/
│   ├── bootstrap-grid.css
│   ├── bootstrap-grid.css.map
│   ├── bootstrap-grid.min.css
│   ├── bootstrap-grid.min.css.map
│   ├── bootstrap-grid.rtl.css
│   ├── bootstrap-grid.rtl.css.map
│   ├── bootstrap-grid.rtl.min.css
│   ├── bootstrap-grid.rtl.min.css.map
│   ├── bootstrap-reboot.css
│   ├── bootstrap-reboot.css.map
│   ├── bootstrap-reboot.min.css
│   ├── bootstrap-reboot.min.css.map
│   ├── bootstrap-reboot.rtl.css
│   ├── bootstrap-reboot.rtl.css.map
│   ├── bootstrap-reboot.rtl.min.css
│   ├── bootstrap-reboot.rtl.min.css.map
│   ├── bootstrap-utilities.css
│   ├── bootstrap-utilities.css.map
│   ├── bootstrap-utilities.min.css
│   ├── bootstrap-utilities.min.css.map
│   ├── bootstrap-utilities.rtl.css
│   ├── bootstrap-utilities.rtl.css.map
│   ├── bootstrap-utilities.rtl.min.css
│   ├── bootstrap-utilities.rtl.min.css.map
│   ├── bootstrap.css
│   ├── bootstrap.css.map
│   ├── bootstrap.min.css
│   ├── bootstrap.min.css.map
│   ├── bootstrap.rtl.css
│   ├── bootstrap.rtl.css.map
│   ├── bootstrap.rtl.min.css
│   ├── bootstrap.rtl.min.css.map
├── js/
│   ├── bootstrap.bundle.js
│   ├── bootstrap.bundle.js.map
│   ├── bootstrap.bundle.min.js
```

# Bootstrap 5 Containers

- .container

- .container-fluid

.container

.container-fluid

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <title>Bootstrap Example</title>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css" rel="stylesheet">
  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/js/bootstrap.bundle.min.js"></script>
</head>
<body>
<div class="container">
  <h1>My First Bootstrap Page</h1>
  <p>This part is inside a .container class.</p>
  <p>The .container class provides a responsive fixed width container.</p>
</div>

</body>
</html>
```
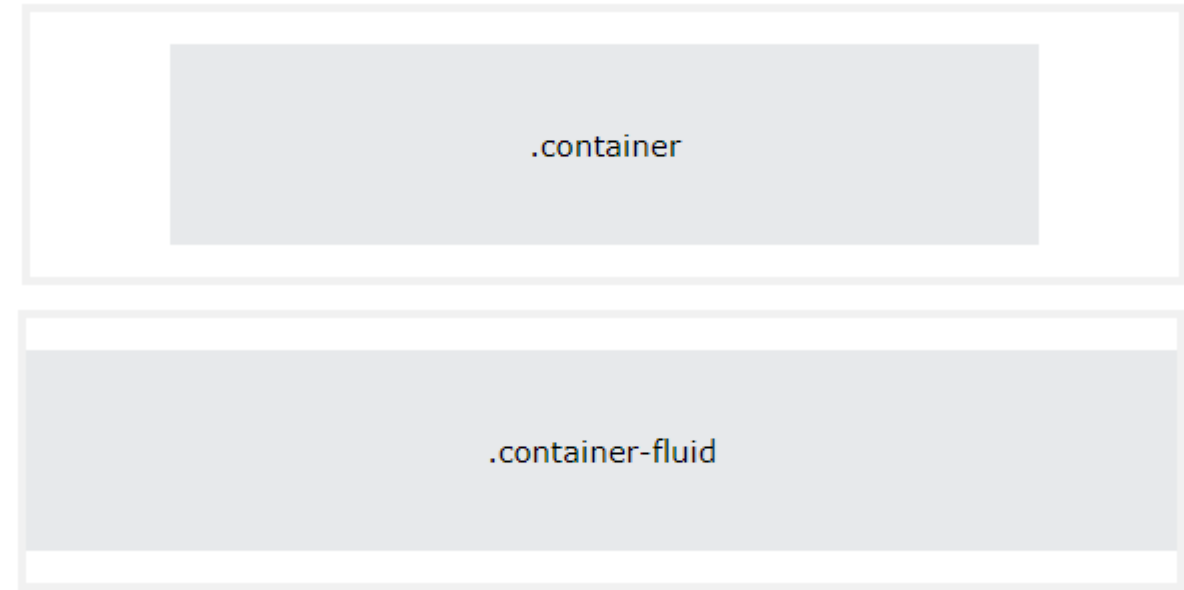
# Bootstrap 5 Containers

- Container Padding

  - 예제     `<div class="container pt-5"></div>`

    - pt-5 : add a large top padding

- Container Border and Color

```
<div class="container p-5 my-5 border"></div>

<div class="container p-5 my-5 bg-dark text-white"></div>

<div class="container p-5 my-5 bg-primary text-white"></div>
```



My First Bootstrap Page
This container has a border and some extra padding and margins.

My First Bootstrap Page
This container has a dark background color and a white text, and some extra padding and margins.

My First Bootstrap Page
This container has a blue background color and a white text, and some extra padding and margins.

# Bootstrap 5 Containers

- 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 |

```
<div class="container-sm">.container-sm</div>
<div class="container-md">.container-md</div>
<div class="container-lg">.container-lg</div>
<div class="container-xl">.container-xl</div>
<div class="container-xxl">.container-xxl</div>
```

## Responsive Containers

Resize the browser window to see the effect.

.container-sm

.container-md

.container-lg

.container-xl

.container-xxl

# Bootstrap 5 Grids

- **Grid Classes**
  - .col-
  - .col-sm-
  - .col-md-
  - .col-lg-
  - .col-xl-
  - .col-xxl-

| span 1 | span 1 | span 1 | span 1 | span 1 | span 1 | span 1 | span 1 | span 1 | span 1 | span 1 | span 1 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| span 4 | | | | span 4 | | | | span 4 | | | |
| span 4 | | | | span 8 | | | | | | | |
| span 6 | | | | | | span 6 | | | | | |
| span 12 | | | | | | | | | | | |

| .col | .col | .col |
|------|------|------|

```
<div class="row">
  <div class="col">.col</div>
  <div class="col">.col</div>
  <div class="col">.col</div>
</div>
```

| .col-sm-4 | .col-sm-8 |
|-----------|-----------|

```
<div class="row">
  <div class="col-sm-4">.col-sm-4</div>
  <div class="col-sm-8">.col-sm-8</div>
</div>
```

# Bootstrap 5 Text/Typography

- **\<h1\> – \<h6\>**
  - .h1 ~ .h6

  ```
  <p class="h1">h1 Bootstrap heading</p>
  <p class="h2">h2 Bootstrap heading</p>
  <p class="h3">h3 Bootstrap heading</p>
  <p class="h4">h4 Bootstrap heading</p>
  <p class="h5">h5 Bootstrap heading</p>
  <p class="h6">h6 Bootstrap heading</p>
  ```

- **Display Headings**
  - .display-1 ~ .display-6

- **\<small\> : .small**

- **\<mark\> : .mark**

- **\<blockquote\> : .blockquote**

- **다음 태그에 스타일 지원**
  - \<abbr\>, \<dl\>, \<code\>, \<kbd\>, \<pre\>

# More Typography Classes

| Class | Description | Example |
|---|---|---|
| `.lead` | Makes a paragraph stand out | **Try it** |
| `.text-start` | Indicates left-aligned text | **Try it** |
| `.text-break` | Prevents long text from breaking layout | **Try it** |
| `.text-center` | Indicates center-aligned text | **Try it** |
| `.text-decoration-none` | Removes the underline from a link | **Try it** |
| `.text-end` | Indicates right-aligned text | **Try it** |
| `.text-nowrap` | Indicates no wrap text | **Try it** |
| `.text-lowercase` | Indicates lowercased text | **Try it** |
| `.text-uppercase` | Indicates uppercased text | **Try it** |
| `.text-capitalize` | Indicates capitalized text | **Try it** |
| `.initialism` | Displays the text inside an `<abbr>` element in a slightly smaller font size | **Try it** |
| `.list-unstyled` | Removes the default list-style and left margin on list items (works on both `<ul>` and `<ol>` ). This class only applies to immediate children list items (to remove the default list-style from any nested lists, apply this class to any nested lists as well) | **Try it** |
| `.list-inline` | Places all list items on a single line (used together with `.list-inline-item` on each `<li>` elements) | **Try it** |

# Bootstrap 5 Colors

- .text-muted, .text-primary, .text-success, .text-info, .text-warning, .text-danger, .text-secondary, .text-white, .text-dark, .text-body , .text-light

- text-black-50 , .text-white-50

- .bg-primary, .bg-success, .bg-info, .bg-warning, .bg-danger, .bg-secondary, .bg-dark , .bg-light

- .text-bg-*color*

This text is muted.

This text is important.

This text indicates success.

This text represents some information.

This text represents a warning.

This text represents danger.

Secondary text.

Dark grey text.

Body text.

Black text with 50% opacity on white background

White text with 50% opacity on black background

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# Bootstrap 5 Tables

- ## Basic Table: .table

| Firstname | Lastname | Email |
|-----------|----------|-------|
| John | Doe | john@example.com |
| Mary | Moe | mary@example.com |
| July | Dooley | july@example.com |

- ## Bordered Table: .table-bordered

| Firstname | Lastname | Email |
|-----------|----------|-------|
| John | Doe | john@example.com |
| Mary | Moe | mary@example.com |
| July | Dooley | july@example.com |

- ## Striped Rows: .table-striped

| Firstname | Lastname | Email |
|-----------|----------|-------|
| John | Doe | john@example.com |
| Mary | Moe | mary@example.com |
| July | Dooley | july@example.com |

- ## Hover Rows: .table-hover

| Firstname | Lastname | Email |
|-----------|----------|-------|
| John | Doe | john@example.com |
| Mary | Moe | mary@example.com |
| July | Dooley | july@example.com |

- ## .table-dark

- ## .table-borderless

- ## .table-*color*

| Default | Defaultson | def@somemail.com |
|---------|------------|------------------|
| Primary | Joe | joe@example.com |
| Success | Doe | john@example.com |
| Danger | Moe | mary@example.com |
| Info | Dooley | july@example.com |
| Warning | Refs | bo@example.com |

# Bootstrap 5 Images

- .rounded, .rounded-circle, .img-thumbnail



- Aligning Images: .float-start, .float-end

- Centered Image: .mx-auto and .d-block

- Responsiver Images: .img-fluid

# Bootstrap 5 Buttons

- **Button Styles**

Basic [Primary] [Secondary] [Success] [Info] [Warning] [Danger] [Dark] [Light] [Link]

```html
<button type="button" class="btn">Basic</button>
<button type="button" class="btn btn-primary">Primary</button>
<button type="button" class="btn btn-secondary">Secondary</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>
<button type="button" class="btn btn-dark">Dark</button>
<button type="button" class="btn btn-light">Light</button>
<button type="button" class="btn btn-link">Link</button>
```

```html
<button type="button" class="btn btn-outline-primary">Primary</button>
<button type="button" class="btn btn-outline-secondary">Secondary</button>
<button type="button" class="btn btn-outline-success">Success</button>
<button type="button" class="btn btn-outline-info">Info</button>
<button type="button" class="btn btn-outline-warning">Warning</button>
<button type="button" class="btn btn-outline-danger">Danger</button>
<button type="button" class="btn btn-outline-dark">Dark</button>
<button type="button" class="btn btn-outline-light text-dark">Light</button>
```

[Primary] [Secondary] [Success] [Info] [Warning] [Danger] [Dark] [Light]

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# Bootstrap 5 Buttons

- **Button Sizes**

  Large   Default   Small

  - .btn-lg, .btn-sm

- **Spinner Buttons**

  - .spinner-border

- **Block Level Buttons**

  Full-Width Button

  Full-Width Button

  Full-Width Button

  - .d-grid
  - .gap-*
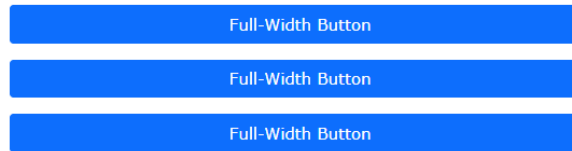
```
<div class="d-grid gap-3">
    <button type="button" class="btn btn-primary btn-block">Full-Width Button</button>
    <button type="button" class="btn btn-primary btn-block">Full-Width Button</button>
    <button type="button" class="btn btn-primary btn-block">Full-Width Button</button>
</div>
```
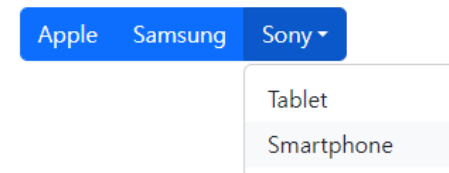
- **Active/Disabled Buttons**

  Primary Button   Active Primary   Disabled Primary   Disabled Link

```
<div class="container mt-3">
    <h2>Button States</h2>
    <button type="button" class="btn btn-primary">Primary Button</button>
    <button type="button" class="btn btn-primary active">Active Primary</button>
    <button type="button" class="btn btn-primary" disabled>Disabled Primary</button>
    <a href="#" class="btn btn-primary disabled">Disabled Link</a>
</div>
```

# Button Groups

- .btn-group

- .btn-group-vertical

```html
<div class="btn-group">
  <button type="button" class="btn btn-primary">Apple</button>
  <button type="button" class="btn btn-primary">Samsung</button>
  <div class="btn-group">
    <button type="button" class="btn btn-primary dropdown-toggle" data-bs-toggle="dropdown">Sony</button>
    <div class="dropdown-menu">
      <a class="dropdown-item" href="#">Tablet</a>
      <a class="dropdown-item" href="#">Smartphone</a>
    </div>
  </div>
</div>
```

# Badges

- .badge

Example heading  New

- Contextual Badges
  - .bg-*

```
<span class="badge bg-primary">Primary</span>
<span class="badge bg-secondary">Secondary</span>
<span class="badge bg-success">Success</span>
<span class="badge bg-danger">Danger</span>
<span class="badge bg-warning">Warning</span>
<span class="badge bg-info">Info</span>
<span class="badge bg-light">Light</span>
<span class="badge bg-dark">Dark</span>
```

Primary  Secondary  Success  Danger  Warning  Info  Light  Dark

- Pill Badges
  - .rounded-pill

Primary  Secondary  Success  Danger  Warning  Info  Light  Dark

# Progress Bars

- ## Basic Progress Bars

```html
<div class="progress">
  <div class="progress-bar" style="width:70%"></div>
</div>
```

- ## Label, Color

70%

```html
<div class="progress">
  <div class="progress-bar bg-danger" style="width:70%">70%</div>
</div>
```

- ## Multiple Progress Bars

Free Space  Warning  Danger

```html
<div class="progress">
  <div class="progress-bar bg-success" style="width:40%">
    Free Space
  </div>
  <div class="progress-bar bg-warning" style="width:10%">
    Warning
  </div>
  <div class="progress-bar bg-danger" style="width:20%">
    Danger
  </div>
</div>
```

# Pagination

- **Basic Pagination**

Previous | 1 | 2 | 3 | Next

- **.pagination, .page-item, .page-link**

```html
<ul class="pagination">
  <li class="page-item"><a class="page-link" href="#">Previous</a></li>
  <li class="page-item"><a class="page-link" href="#">1</a></li>
  <li class="page-item"><a class="page-link" href="#">2</a></li>
  <li class="page-item"><a class="page-link" href="#">3</a></li>
  <li class="page-item"><a class="page-link" href="#">Next</a></li>
</ul>
```

- **.active**

Previous | 1 | **2** | 3 | Next

```html
<li class="page-item active"><a class="page-link" href="#">2</a></li>
```

- **Breadcrumbs**

Photos / Summer 2017 / Italy / Rome

```html
<ul class="breadcrumb">
  <li class="breadcrumb-item"><a href="#">Photos</a></li>
  <li class="breadcrumb-item"><a href="#">Summer 2017</a></li>
  <li class="breadcrumb-item"><a href="#">Italy</a></li>
  <li class="breadcrumb-item active">Rome</li>
</ul>
```

- **Pagination Alignment**

```html
<!-- Default (left-aligned) -->
<ul class="pagination" style="margin:20px 0">
  <li class="page-item">...</li>
</ul>

<!-- Center-aligned -->
<ul class="pagination justify-content-center" style="margin:20px 0">
  <li class="page-item">...</li>
</ul>

<!-- Right-aligned -->
<ul class="pagination justify-content-end" style="margin:20px 0">
  <li class="page-item">...</li>
</ul>
```

Previous | 1 | 2 | 3 | Next

Previous | 1 | 2 | 3 | Next

Previous | 1 | 2 | 3 | Next

# List Groups

- **Basic List Groups**

```
<ul class="list-group">
  <li class="list-group-item active">Active item</li>
  <li class="list-group-item">Second item</li>
  <li class="list-group-item">Third item</li>
</ul>
```

| Active item |
|:---|
| Second item |
| Third item |

- **List Group With Linked Items**
  - .list-group-item-action

| First item |
|:---|
| Second item |
| Third item |

- **Flush/Remove Borders**
  - .list-group-flush

First item

Second item

Third item

Fourth item

- **Numbered List Groups**
  - .list-group-numbered

| 1. First item |
|:---|
| 2. Second item |
| 3. Third item |

- **Horizontal List Groups**
  - .list-group-horizontal

| First item | Second item | Third item | Fourth item |
|:---|:---|:---|:---|

# Cards

- **Basic Card**
  - .card

```
<div class="card">
  <div class="card-body">Basic card</div>
</div>
```

- **Header and Footer**

```
<div class="card">
  <div class="card-header">Header</div>
  <div class="card-body">Content</div>
  <div class="card-footer">Footer</div>
</div>
```

| Header |
|--------|
| Content |
| Footer |

- **Titles, text, and links**

```
<div class="card">
  <div class="card-body">
    <h4 class="card-title">Card title</h4>
    <p class="card-text">Some example text. Some example text.</p>
    <a href="#" class="card-link">Card link</a>
    <a href="#" class="card-link">Another link</a>
  </div>
</div>
```

**Card title**

Some example text. Some example text.

Card link    Another link

- **Card Images**

```
<div class="card" style="width:400px">
  <img class="card-img-top" src="img_avatar1.png" alt="Card image">
  <div class="card-body">
    <h4 class="card-title">John Doe</h4>
    <p class="card-text">Some example text.</p>
    <a href="#" class="btn btn-primary">See Profile</a>
  </div>
</div>
```

John Doe

Some example text some example text. John Doe is an architect and engineer

See Profile

# Collapse

- 버튼/링크를 누를때마다 내용 show/hidden 전환

- 예제

```html
<button data-bs-toggle="collapse" data-bs-target="#demo">Collapsible</button>

<div id="demo" class="collapse">
Lorem ipsum dolor text....
</div>
```

```html
<a href="#demo" data-bs-toggle="collapse">Collapsible</a>

<div id="demo" class="collapse">
Lorem ipsum dolor text....
</div>
```
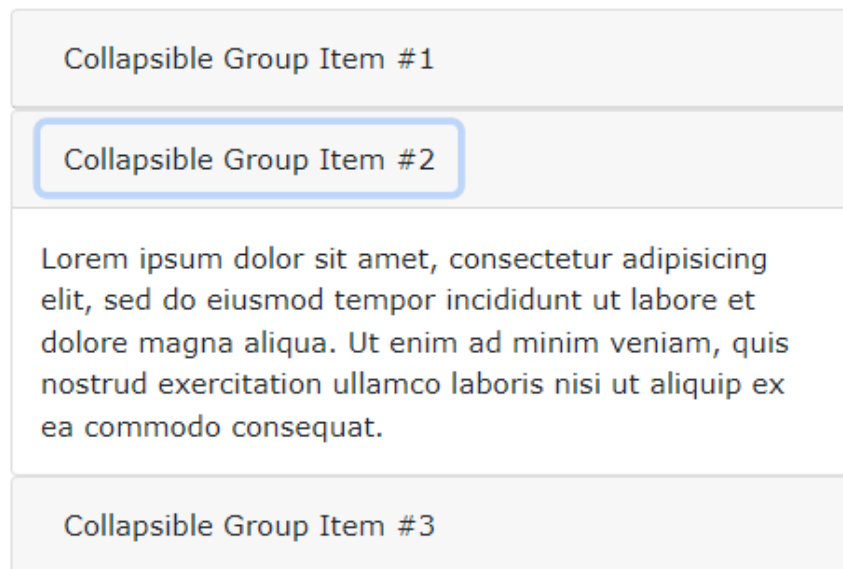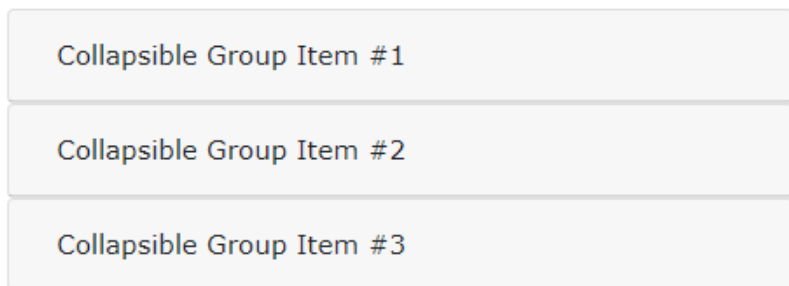
Click Me

```html
<div id="demo" class="collapse show">
Lorem ipsum dolor text....
</div>
```

Click Me

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

# Collapse _ Accordion

- data-bs-parent 속성 사용 → 축소 가능한 항목중 하나가 표시될 때 지정된 상위 아래의 모든 축소 가능한 요소가 닫히도록 설정

Collapsible Group Item #1

Collapsible Group Item #2

Collapsible Group Item #3

Collapsible Group Item #1

Collapsible Group Item #2

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

Collapsible Group Item #3

```html
<div id="accordion">

  <div class="card">
    <div class="card-header">
      <a class="btn" data-bs-toggle="collapse" href="#collapseOne">
        Collapsible Group Item #1
      </a>
    </div>
    <div id="collapseOne" class="collapse show" data-bs-parent="#accordion">
      <div class="card-body">
        Lorem ipsum..
      </div>
    </div>
  </div>

  <div class="card">
    <div class="card-header">
      <a class="collapsed btn" data-bs-toggle="collapse" href="#collapseTwo">
        Collapsible Group Item #2
      </a>
    </div>
    <div id="collapseTwo" class="collapse" data-bs-parent="#accordion">
      <div class="card-body">
        Lorem ipsum..
      </div>
    </div>
  </div>

  <div class="card">
    <div class="card-header">
      <a class="collapsed btn" data-bs-toggle="collapse" href="#collapseThree">
        Collapsible Group Item #3
      </a>
    </div>
    <div id="collapseThree" class="collapse" data-bs-parent="#accordion">
      <div class="card-body">
        Lorem ipsum..
      </div>
    </div>
  </div>
</div>
```

# Navs

- Nav Menus     Link    Link    Link    Disabled

```html
<ul class="nav">
  <li class="nav-item">
    <a class="nav-link" href="#">Link</a>
  </li>
  <li class="nav-item">
    <a class="nav-link" href="#">Link</a>
  </li>
  <li class="nav-item">
    <a class="nav-link" href="#">Link</a>
  </li>
  <li class="nav-item">
    <a class="nav-link disabled" href="#">Disabled</a>
  </li>
</ul>
```

- Tabs: nav-tabs    Active   Link   Link   Disabled

- Pills: nav-pills    Active   Link   Link   Disabled

- 정렬: justify-content-center, justify-content-end

- flex-column   Link
  - 세로로 배치   Link

    Link

    Disabled

- nav-justified
  - 동일 너비를 사용하여 정렬

```html
<ul class="nav nav-pills nav-justified">..</ul>
<ul class="nav nav-tabs nav-justified">..</ul>
```

# Toggleable Tabs

```html
<div class="container mt-3">
  <h2>Toggleable Pills</h2>
  <br>
  <!-- Nav pills -->
  <ul class="nav nav-pills" role="tablist">
    <li class="nav-item">
      <a class="nav-link active" data-bs-toggle="pill" href="#home">Home</a>
    </li>
    <li class="nav-item">
      <a class="nav-link" data-bs-toggle="pill" href="#menu1">Menu 1</a>
    </li>
    <li class="nav-item">
      <a class="nav-link" data-bs-toggle="pill" href="#menu2">Menu 2</a>
    </li>
  </ul>
  <!-- Tab panes -->
  <div class="tab-content">
    <div id="home" class="container tab-pane active"><br>
      <h3>HOME</h3>
      <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor
incididunt ut labore et dolore magna aliqua.</p>
    </div>
    <div id="menu1" class="container tab-pane fade"><br>
      <h3>Menu 1</h3>
      <p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip
ex ea commodo consequat.</p>
    </div>
    <div id="menu2" class="container tab-pane fade"><br>
      <h3>Menu 2</h3>
      <p>Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium
doloremque laudantium, totam rem aperiam.</p>
    </div>
  </div>
</div>
```

Home | **Menu 1** | Menu 2

## Menu 1

Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

# Navbars

```html
<nav class="navbar navbar-expand-sm navbar-dark bg-dark">
  <div class="container-fluid">
    <a class="navbar-brand" href="javascript:void(0)">Logo</a>
    <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#mynavbar">
      <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="mynavbar">
      <ul class="navbar-nav me-auto">
        <li class="nav-item">
          <a class="nav-link" href="javascript:void(0)">Link</a>
        </li>
        <li class="nav-item">
          <a class="nav-link" href="javascript:void(0)">Link</a>
        </li>
        <li class="nav-item">
          <a class="nav-link" href="javascript:void(0)">Link</a>
        </li>
      </ul>
      <form class="d-flex">
        <input class="form-control me-2" type="text" placeholder="Search">
        <button class="btn btn-primary" type="button">Search</button>
      </form>
    </div>
  </div>
</nav>
```
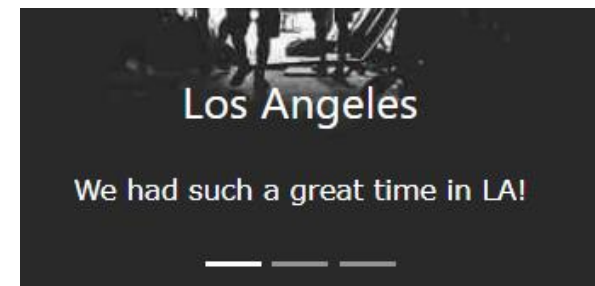
# Carousel

- ## Carousel/Slideshow



```html
<!-- 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">
      <img src="la.jpg" alt="Los Angeles" class="d-block" style="width:100%">
    </div>
    <div class="carousel-item">
      <img src="chicago.jpg" alt="Chicago" class="d-block" style="width:100%">
    </div>
    <div class="carousel-item">
      <img src="ny.jpg" alt="New York" class="d-block" style="width:100%">
    </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>
</div>
```

caption 추가 가능

```html
<div class="carousel-item">
  <img src="la.jpg" alt="Los Angeles">
  <div class="carousel-caption">
    <h3>Los Angeles</h3>
    <p>We had such a great time in LA!</p>
  </div>
</div>
```

# Modal

- **대화상자/팝업창**

```html
<div class="container mt-3">
  <h3>Modal Example</h3>
  <p>Click on the button to open the modal.</p>
  <button type="button" class="btn btn-primary" data-bs-toggle="modal" data-bs-target="#myModal">
    Open modal
  </button>
</div>

<!-- The Modal -->
<div class="modal" id="myModal">
  <div class="modal-dialog">
    <div class="modal-content">
      <!-- Modal Header -->
      <div class="modal-header">
        <h4 class="modal-title">Modal Heading</h4>
        <button type="button" class="btn-close" data-bs-dismiss="modal"></button>
      </div>
      <!-- Modal body -->
      <div class="modal-body">
        Modal body..
      </div>
      <!-- Modal footer -->
      <div class="modal-footer">
        <button type="button" class="btn btn-danger" data-bs-dismiss="modal">Close</button>
      </div>
    </div>
  </div>
</div>
```
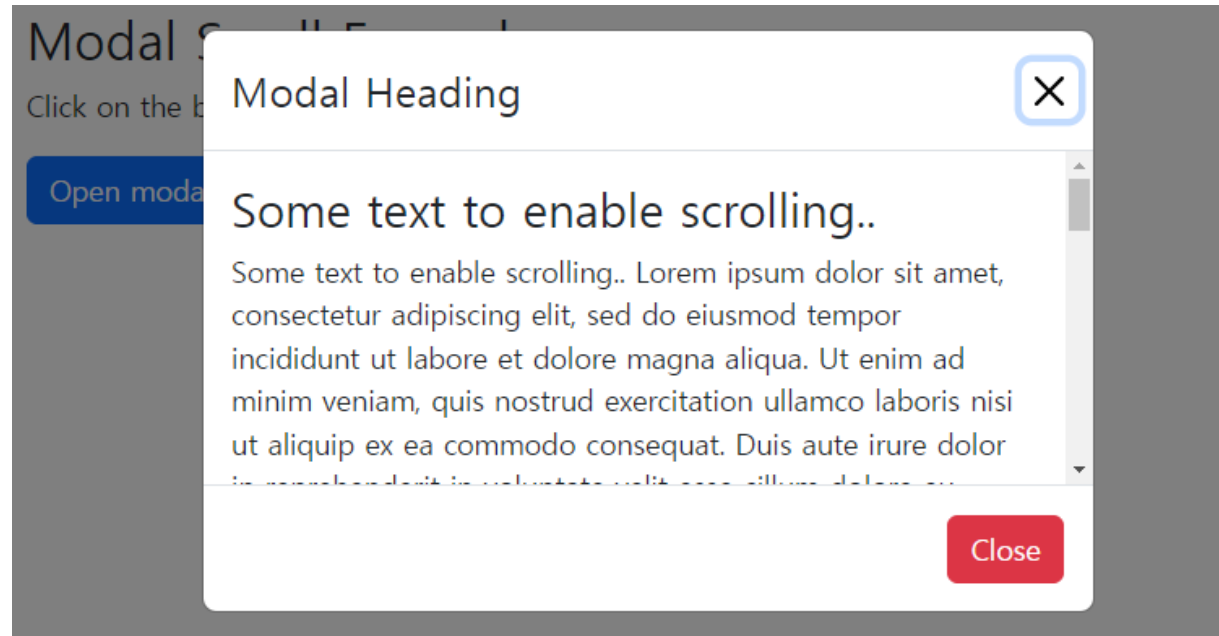
28

# Modal

- **Modal Size**
  - modal-sm, modal-lg, modal-xl, modal-fullscreen

- **Scrolling Modal**
  - modal-dialog-scrollable

# Form

```html
<form action="/action_page.php">
  <div class="mb-3 mt-3">
    <label for="email" class="form-label">Email:</label>
    <input type="email" class="form-control" id="email" placeholder="Enter email" name="email">
  </div>
  <div class="mb-3">
    <label for="pwd" class="form-label">Password:</label>
    <input type="password" class="form-control" id="pwd" placeholder="Enter password" name="pswd">
  </div>
  <div class="form-check mb-3">
    <label class="form-check-label">
      <input class="form-check-input" type="checkbox" name="remember"> Remember me
    </label>
  </div>
  <button type="submit" class="btn btn-primary">Submit</button>
</form>
```

```html
<label for="comment">Comments:</label>
<textarea class="form-control" rows="5" id="comment" name="text"></textarea>
```

# Select

```html
<form action="/action_page.php">
  <label for="sel1" class="form-label">Select list (select one):</label>
  <select class="form-select" id="sel1" name="sellist1">
    <option>1</option>
    <option>2</option>
    <option>3</option>
    <option>4</option>
  </select>
  <br>

  <label for="sel2" class="form-label">Mutiple select list (hold shift to select more than one):</label>
  <select multiple class="form-select" id="sel2" name="sellist2">
    <option>1</option>
    <option>2</option>
    <option>3</option>
    <option>4</option>
    <option>5</option>
  </select>
  <button type="submit" class="btn btn-primary mt-3">Submit</button>
</form>
```

Select list (select one):

| 1 | ⌄ |

Mutiple select list (hold shift to select more than one):

1
**2**
3
**4**

Submit

# Checkboxes, Radio buttons

## ▪ Checkboxes

```html
<div class="form-check">
  <input class="form-check-input" type="checkbox" id="check1"
name="option1" value="something" checked>
  <label class="form-check-label">Option 1</label>
</div>
```

☑ Option 1

☐ Option 2

☐ Disabled Option

## ▪ Radio buttons

```html
<div class="form-check">
  <input type="radio" class="form-check-input" id="radio1"
name="optradio" value="option1" checked>Option 1
  <label class="form-check-label" for="radio1"></label>
</div>
<div class="form-check">
  <input type="radio" class="form-check-input" id="radio2"
name="optradio" value="option2">Option 2
  <label class="form-check-label" for="radio2"></label>
</div>
<div class="form-check">
  <input type="radio" class="form-check-input" disabled>Option 3
  <label class="form-check-label"></label>
</div>
```

🔘 Option 1
⚪ Option 2
⚪ Option 3

## ▪ Toggle Switches

🔵 Dark Mode

```html
<div class="form-check form-switch">
  <input class="form-check-input" type="checkbox" id="mySwitch"
name="darkmode" value="yes" checked>
  <label class="form-check-label" for="mySwitch">Dark Mode</label>
</div>
```

# Floating Labels

- **default label**

Email Label

Enter email

- **floating label**

Email

Password

⬇

Email
a

Password
p

```html
<div class="form-floating mb-3 mt-3">
  <input type="text" class="form-control" id="email"
placeholder="Enter email" name="email">
  <label for="email">Email</label>
</div>

<div class="form-floating mt-3 mb-3">
  <input type="text" class="form-control" id="pwd"
placeholder="Enter password" name="pswd">
  <label for="pwd">Password</label>
</div>
```

# Form Validation

Username:

Enter username ⊙

Please fill out this field.

Password:

Enter password ⊙

Please fill out this field.

☐ I agree on blabla.

Check this checkbox to continue.

```html
<form action="/action_page.php" class="was-validated">
  <div class="mb-3 mt-3">
    <label for="uname" class="form-label">Username:</label>
    <input type="text" class="form-control" id="uname" placeholder="Enter username" name="uname" required>
    <div class="valid-feedback">Valid.</div>
    <div class="invalid-feedback">Please fill out this field.</div>
  </div>
```

# Basic Template

## My First Bootstrap 5 Page

Resize this responsive page to see the effect!

**Active**  Link  Link  Disabled

## About Me

Photo of me:

Fake Image

Some text about me in culpa qui officia deserunt mollit anim..

## Some Links

Lorem ipsum dolor sit ame.

**Active**

## TITLE HEADING

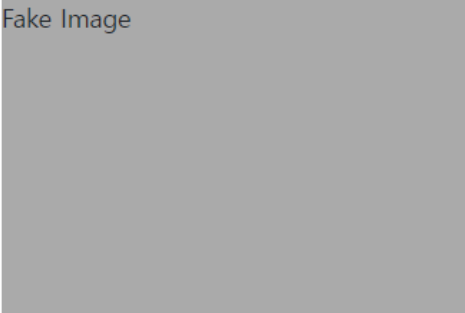Title description, Dec 7, 2020

Fake Image

Some text..

Sunt in culpa qui officia deserunt mollit anim id est laborum consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercition ullamco.

## TITLE HEADING

elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercition ullamco.

## Some Links

Lorem ipsum dolor sit ame.

**Active**

Link

Link

Disabled

## TITLE HEADING

Title description, Sep 2, 2020

Fake Image

Some text..

Sunt in culpa qui officia deserunt mollit anim id est laborum consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercition ullamco.

Footer