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# Web Technologies

## Bootstrap

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# Introduction

Bootstrap is a CSS framework

- Front-end
- Responsive
- Free
- Open source



# History

Bootstrap was originally created at Twitter, it was known as Twitter Blueprint,

- 2010, created at Twitter as **Twitter Blueprint**
- 2011, v1.0 release
- 2012, v2.0 release
- 2013, v3.0 release
- 2018, v4.0 release
- 2021, v5.0 release

# Grid System

- 12 columns
- Responsive depending on screen size

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											

# Grid Classes

The classes below can be combined with each other to create flexible layouts

- **xs**, less than 768px, like phones
- **sm**, more than 768px, like tablets
- **md**, more than 992px, like small laptops
- **lg**, more than 1200px, like laptops and desktops

# Examples

## 3 equal columns Example

```
1 <div class="row">
2   <div class="col-sm-4">.col-sm-4</div>
3   <div class="col-sm-4">.col-sm-4</div>
4   <div class="col-sm-4">.col-sm-4</div>
5 </div>
```

## Result

.col-sm-4

.col-sm-4

.col-sm-4

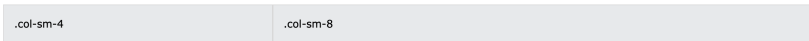
# Examples

## 2 unequal columns Example

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

---

### Result





# Alerts

```
1 <div class="alert alert-success">
2   <strong>Success!</strong> message.</div>
3 <div class="alert alert-info">
4   <strong>Info!</strong> message.</div>
5 <div class="alert alert-warning">
6   <strong>Warning!</strong> message.</div>
7 <div class="alert alert-danger">
8   <strong>Danger!</strong> message.</div>
```

---

Success! Message.

Info! Message.

Warning! Message.

Danger! Message.

# Buttons

```
1 <button class="btn">Basic</button>
2 <button class="btn btn-default">Default</button>
3 <button class="btn btn-primary">Primary</button>
4 <button class="btn btn-success">Success</button>
5 <button class="btn btn-info">Info</button>
6 <button class="btn btn-warning">Warning</button>
7 <button class="btn btn-danger">Danger</button>
8 <button class="btn btn-link">Link</button>
```

Basic

Default

Primary

Success

Info

Warning

Danger

Link

# Buttons

```
1 <a href="#" class="btn btn-info" role="button">  
  Link Button</a>  
2 <button type="button" class="btn btn-info">Button  
  </button>  
3 <input type="button" class="btn btn-info" value="  
  Input Button">  
4 <input type="submit" class="btn btn-info" value="  
  Submit Button">
```

---

Link Button

Button

Input Button

Submit Button

# Button groups

```
1 <div class="btn-group">
2   <button type="button" class="btn btn-primary">
      Apple</button>
3   <button type="button" class="btn btn-primary">
      Samsung</button>
4   <button type="button" class="btn btn-primary">
      Sony</button>
5 </div>
```

Apple

Samsung

Sony

# Glyphicons

Bootstrap provides 260 glyphicons

## Glyphicon in buttons example

```
1 <button type="button" class="btn btn-default">
2 <span class="glyphicon glyphicon-search"></span>
   Search</button>
3 <a class="btn btn-primary">
4 <span class="glyphicon glyphicon-download"></span>
   Download</a>
5 <button type="button" class="btn btn-success">
6 <span class="glyphicon glyphicon-cog"></span>
   Settings</button>
7 <a class="btn btn-danger">
8 <span class="glyphicon glyphicon-trash"></span>
   Delete</a>
```

[Download](#)[Settings](#)[Settings](#)

# Progress bar

## Progress bar example

```
1 <div class="progress">
2   <div class="progress-bar" role="progressbar"
      aria-valuenow="70" aria-valuemin="0"
      aria-valuemax="100" style="width:70%">
3     70% Complete
4   </div>
5 </div>
```



70%

Questions ?