

# Web Programming

YJ – 2016

# Bootstrap

Bootstrap was developed by *Mark Otto* and *Jacob Thornton* at *Twitter*.

Bootstrap is a sleek, intuitive, and powerful, mobile first front-end framework for faster and easier web development. It uses HTML, CSS and Javascript.

- **Mobile first approach** – Bootstrap 3, framework consists of Mobile first styles throughout the entire library instead of in separate files.
- **Browser Support** – It is supported by all popular browsers.
- **Easy to get started** – With just the knowledge of HTML and CSS anyone can get started with Bootstrap. Also the Bootstrap official site has a good documentation.
- **Responsive design** – Bootstrap's responsive CSS adjusts to Desktops, Tablets and Mobiles.

# Grid System

Bootstrap includes a responsive, mobile first fluid grid system that appropriately scales up to 12 columns as the device or viewport size increases. It includes predefined classes for easy layout options, as well as powerful mixins for generating more semantic layouts.

## Basic Grid Structure

```
<div class = "container">
  <div class = "row">
    <div class = "col-*-*"></div>
    <div class = "col-*-*"></div>
  </div>
  <div class = "row">...</div>

</div>
<div class = "container">
  ....
</div>
```

# Grid options

	<b>Extra small devices Phones (<math>&lt;768\text{px}</math>)</b>	<b>Small devices Tablets (<math>\geq 768\text{px}</math>)</b>	<b>Medium devices Desktops (<math>\geq 992\text{px}</math>)</b>	<b>Large devices Desktops (<math>\geq 1200\text{px}</math>)</b>
Grid behavior	Horizontal at all times	Collapsed to start, horizontal above breakpoints	Collapsed to start, horizontal above breakpoints	Collapsed to start, horizontal above breakpoints
Max container width	None (auto)	750px	970px	1170px
Class prefix	<b>.col-xs-</b>	<b>.col-sm-</b>	<b>.col-md-</b>	<b>.col-lg-</b>
# of columns	12	12	12	12

# Grid features

- ❖ **clearfix**
- ❖ **offset**
- ❖ **nesting**
- ❖ **ordering**

# Responsive utilities

Classes	Devices
.visible-xs	Extra small (less than 768px) <i>visible</i>
.visible-sm	Small (up to 768 px) <i>visible</i>
.visible-md	Medium (768 px to 991 px) <i>visible</i>
.visible-lg	Larger (992 px and above) <i>visible</i>
.hidden-xs	Extra small (less than 768px) <i>hidden</i>
.hidden-sm	Small (up to 768 px) <i>hidden</i>
.hidden-md	Medium (768 px to 991 px) <i>hidden</i>
.hidden-lg	Larger (992 px and above) <i>hidden</i>
.visible-print	Yes Visible
.hidden-print	Visible only to browser not to print.

# Basic components

- ❖ **Table**
- ❖ **Form**
- ❖ **Button**
- ❖ **Glyphicons**

# Other components

Glyphicons	Badges
Drop downs	Jumbotron
Button Groups	Page Header
Button Drop downs	Thumbnails
Input Groups	Alerts
Navigation Elements (tabs)	Progress Bars
Navbar	Media Object
Breadcrumb	List Group
Pagination	Panels
Labels	Wells



# Advanced components

Modal	Dropdown
Scrollspy	Tooltip
Popover	Collapse
Carousel	Affix