



# BOOTSTRAP 4



# 12-COLUMN GRID SYSTEM

- Extra small
- Small
- Medium
- Large
- Extra large

# GRID SYSTEM



## The Grid

- Responsive 12-column
- Flexbox Based
- Structure
  - containers
  - rows/columns

# GRID CONTAINERS



## Grid Containers

- `container`
- `container-fluid`
- 15px padding
- Adjusts to breakpoints

`<576px` `576px` `768px` `992px` `1200px`

## Grid Containers

- `container(-SIZ)`

SIZ: `sm` `md` `lg` `xl` `fluid`

# CONTAINER SIZING

## Container Sizing

	Extra small < 576px	Small ≥ 576px	Medium ≥ 768px	Large ≥ 992px	Extra large ≥ 1200px
.container	100%	540px	720px	960px	1140px
.container-sm	100%	540px	720px	960px	1140px
.container-md	100%	100%	720px	960px	1140px
.container-lg	100%	100%	100%	960px	1140px
.container-xl	100%	100%	100%	100%	1140px
.container-fluid	100%	100%	100%	100%	100%

# ROWS

## Rows

- `row`
- `row-cols(-BP)(-COL)`  
BP: `sm` >576px `md` >768px `lg` >992px `xl` >1200px  
COL: `1-6`
- `no-gutters` delete space between

# GRID COLUMN



## Columns

- 12 Column Grid
- Columns can span
- `col(-BP)(-COL)`

BP: **sm** >576px **md** >768px **lg** >992px **xl** >1200px

COL: **1-12**

# GRID COLUMN SPECS

## Column Specs

	<b>Extra small</b> < 576px	<b>Small</b> ≥ 576px	<b>Medium</b> ≥ 768px	<b>Large</b> ≥ 992px	<b>Extra large</b> ≥ 1200px
<b>Prefix</b>	.col-	.col-sm-	.col-md-	.col-lg-	.col-xl-



## Aligning Columns

- Vertical

`align-TYP-DIR`

TYP: `items` `self`

DIR: `start` `center` `end`

- Horizontal

`justify-content-DIR`

DIR: `start` `center` `end` `around` `between`



# Vertical Alignment

- Use in rows
- `align-items-ALN`

ALN: `start` `center` `end`



# Individual Alignment

- Use in cols
- `align-self-ALN`

ALN: `start` `center` `end`



# Horizontal Alignment

- Use in rows
- Need col width
- `justify-content-ALN`

ALN: `start` `center` `end` `around` `between`

# MULTIPLE ROWS & COLS

- `container(-SIZ)`

SIZ: `sm` `md` `lg` `xl` `fluid`

- `row row-cols(-BP)(-COL)`

BP: `sm` >576px `md` >768px `lg` >992px `xl` >1200px

COL: `1-6`

- `col(-BP)(-COL)`

BP: `sm` >576px `md` >768px `lg` >992px `xl` >1200px

COL: `1-12`



# Column Offsets

- `offset-BP-COL`

**BP:** `sm` >576px `md` >768px `lg` >992px `xl` >1200px

**COL:** `1-11`

# ORDER ITEMS



- `order(-BP)-ORD`

BP: `sm` >576px `md` >768px `lg` >992px `xl` >1200px

ORD: `1-12`



# Position

- Position classes

`fixed-top`

`fixed-bottom`

`sticky-top`

- `sticky-top` lacks support



# NESTING



## Nesting

- `row` inside column
- Creates 12-col grid
- Use same classes



## Basic Display

- Mimics CSS

- `d(-BP)-TYP`

BP: `sm` >576px `md` >768px `lg` >992px `xl` >1200px

TYP: `none` `inline` `inline-block` `block`  
`table` `table-row` `table-cell` `flex` `inline-flex`



## Print Display

- `d-print-TYP`

TYP: `none` `inline` `inline-block` `block`  
`table` `table-row` `table-cell` `flex` `inline-flex`

