



# FOUNDATION VS BOOTSTRAP

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**CC Front-end & UX**

# FOUNDATION VS BOOTSTRAP

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- a. What's in a name
- b. Introducing Foundation
- c. Introducing Bootstrap
- d. Hands-on & comparisson

# WHAT'S IN A NAME

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- a. Totally not basic
- b. Many predefined styles
- c. Common JS components
- d. Extensive possibilities to extend



*"Foundation is the most advanced responsive front-end framework in the world"*

# ZURB FOUNDATION

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- a. Created at Zurb
- b. Opensource, but paid maintenance
- c. 5th major release, 6th on its way
- d. Offer certification & trainings
- e. Frameworks for websites, applications & email templating



*"Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web."*

# TWITTER BOOTSTRAP

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- a. Created at Twitter
- b. Opensource, backed by community
- c. 3th major release





- a. Grid System
- b. Responsive tables
- c. Utilities
- d. Customisation: Foundation Sass vs Bootstrap LESS
- e. Components:
  - Orbid vs Carousel
  - Magellan vs Scrollspy
  - Joyride vs Popover
  - Responsive tables

# GRID SYSTEM

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## Foundation

[More](#)

- Responsive, fluid & mobile first
- Scales to 12 columns
- Predefined classes & mixins

## Bootstrap

[More](#)

- Responsive, fluid & mobile first
- Scales to 12 columns
- Predefined classes & mixins

# GRID SYSTEM: ROW & COLUMN



## Foundation

[More](#)

- Predefined grid classes:

```
.small-6 .columns
```

- Columns must have a row directly as parent
- Columns have a gutters based on the default fontsize(16px):  
`rem-calc(30);`
- Always place columns in `.rows` when deepnesting

## Bootstrap

[More](#)

- Predefined grid classes:

```
.col-xs-4
```

- Columns must have a row directly as parent
- Columns have a gutters of 30px (15px on each side)
- Place rows in `.container` (fixed-width) or `.container-fluid` (full-width)

# GRID SYSTEM: MEDIA QUERIES & BREAKPOINTS (1)

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## Foundation

[More](#)

## Bootstrap

[More](#)

Default 4 breakpoints:

- `$small-range: (0em, 40em);`
- `$medium-range: (40.063em, 64em);`
- `$large-range: (64.063em, 90em);`
- `$xlarge-range: (90.063em, 120em);`
- `$xxlarge-range: (120.063em, 99999em);`

Default 3 breakpoints:

- 768px
- 992px
- 1200px

# GRID SYSTEM: MEDIA QUERIES & BREAKPOINTS (2)

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## Foundation

[More](#)

4 breakpoints means, styling for 5 levels:

- < 640px
- ≥ 641px
- ≥ 1025px
- ≥ 1441px
- ≥ 1921px

## Bootstrap

[More](#)

3 breakpoints means, styling for 4 levels:

- < 768px
- ≥ 768px
- ≥ 992px
- ≥ 1200px

# GRID SYSTEM: GRID BEHAVIOUR

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## Foundation

More

## Bootstrap

- Does not provide a certain breakpoint for column collapsing
- Define it yourself
- $< 768\text{px}$ : Collapsed at all times
- $\geq 768\text{px}$ : Collapsed to start, horizontal above breakpoints

# GRID SYSTEM: CONTAINER WIDTH



## Foundation

More

- `.row` acts as a container
- width is determined by a variable (default 1000px)

```
@include grid-row(..)  
$row-width: rem-calc(1000);
```

## Bootstrap

More

```
.container
```

```
.container-fluid
```

- $< 768\text{px}$ : none (auto)
- $\geq 768\text{px}$ : 750px
- $\geq 992\text{px}$ : 970px
- $\geq 1200\text{px}$ : 1170px

## Foundation

[More](#)

- breakpoints defined as default variables
- variables can be adapted, so naming stays, but values change

default generic naming:

```
.small-10  
.medium-6  
.large-4  
.xlarge-2  
.large-1
```

## Bootstrap

[More](#)

- < 768px:

```
.col-xs-*
```

- ≥ 768px:

```
.col-sm-*
```

- ≥ 992px:

```
.col-md-*
```

- ≥ 1200px:

```
.col-lg-*
```



# GRID SYSTEM: COLUMN WRAPPING

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## Foundation

[More](#)

When placing more than 12 columns in a row, they will wrap on a new line. eg.  $\text{small-9} + \text{small-4} = 13 \text{ columns} > 12 \text{ columns}$

## Bootstrap

[More](#)

When placing more than 12 columns in a row, they will wrap on a new line. eg.  $\text{col-xs-9} + \text{col-xs-4} = 13 \text{ columns} > 12 \text{ columns}$

# GRID SYSTEM: COLUMN RESETS

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## Foundation

[More](#)

- based on the parent `.row`, `::after` pseudo element
- clear manually , an extra HTML element

## Bootstrap

[More](#)

Bootstrap does column resets by adding an extra HTML element in your grid.

# GRID SYSTEM: OFFSET

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## Foundation

[More](#)

It is possible to give a column an offset of \* columns.

```
.large-10 large-offset-1 column
```

## Bootstrap

[More](#)

It is possible to give a column an offset of \* columns.

```
.col-md-offset-*
```

# GRID SYSTEM: ORDERING



## Foundation

[More](#)

Ordering can be done by using push or pull.

Easily change the order of our built-in grid columns with some classes.

```
small-10 small-push-2 columns
```

and

```
small-2 small-pull-10 columns
```

modifier classes.

## Bootstrap

[More](#)

Ordering can be done by using push or pull.

Easily change the order of our built-in grid columns with

```
.col-md-push-*
```

and

```
.col-md-pull-*
```

modifier classes.

# GRID SYSTEM: LESS MIXINS & VARIABLES



## Foundation

[More](#)

A set of variables and mixins can be customised and used within Foundation.

Example:

```
$row-width: rem-calc(1000);  
$column-gutter: rem-calc(30);  
$total-columns: 12 ;
```

## Bootstrap

[More](#)

A set of variables and mixins can be customised and used within Bootstrap.

Example:

```
@grid-columns: 12;  
@grid-gutter-width: 30px;  
@grid-float-breakpoint: 768px;
```

# UTILITIES

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- General visibility rules
- Print styles

# GENERAL VISIBILITY RULES



## Foundation

[More](#)

Based on your viewport it's possible to show/hide content. Compared to Bootstrap this is extensive. Visibility rules can rely on:

- Type & orientation of the device
- Width of the viewport

Examples:

```
.hide-for-large-up  
.show-for-large-up  
.show-for-landscape  
.hide-for-touch
```

## Bootstrap

[More](#)

Based on the width you are on it is possible to show / hide content using just classes. These helper classes are fairly basic.

```
.visible-*-*  
.hidden-*
```

# PRINT STYLES

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## Foundation

[More](#)

Helper classes to show or hide content on print are fairly basic but handy.

```
.show-for-print  
.print-only  
.hide-for-print  
.hide-on-print
```

## Bootstrap

[More](#)

Helper classes to show or hide content on print are fairly basic.

```
.visible-print-block  
.visible-print-inline  
.visible-print-inline-block  
.hidden-print
```



## Foundation

[More](#)

- a. build on Sass
- b. entirely customizable
  - online basic customisation
  - customise every tiny detail
  - define your own semantic css

## Bootstrap

[More](#)

- a. Built on Less, but official Sass variant available
- b. Colors
- c. Scaffolding
- d. Links
- e. Typography
- f. Icons
- g. Components
- h. Vendor Mixins
- i. Utility Mixins

# COMPONENTS

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## Foundation

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Orbid  
Magellan  
Joyride  
Responsive tables

vs.

## Bootstrap

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Carousel  
Scrollspy  
Popover  
Responsive tables

# COMPONENTS

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## Orbit

[More](#)

- JavaScript component
- uses slick & its options
- deprecated ( just use slick )
- poor accessibility

## Carousel

[More](#)

- JavaScript based
- Extension on top of Bootstrap
- Pay attention to accessibility
- Animation not supported in IE 8 & 9
- Customising: Some options, methods and events are available

# COMPONENTS

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## Magellan

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[More](#)

- JavaScript component
- style-agnostic plugin
- fixed position content navigation

## Scrollspy

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[More](#)

- JavaScript based
- Extension on top of Bootstrap
- Needs the Bootstrap nav component
- Customising: Some options, methods and events are available

# COMPONENTS

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## Joyride

[More](#)

- JavaScript component
- Guided tour

## Popover

[More](#)

- JavaScript based
- Requires the tooltip plugin
- Could be used to give a tour when using an application or website for the first time
- Customising: Some options, methods and events are available

# COMPONENTS

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## Responsive tables

[More](#)

- JavaScript & CSS based
- Does some DOM manipulation

## Responsive tables

[More](#)

- Purely CSS based
- Uses a wrapper with overflow-x disabled and overflow-y set to auto

## DOCUMENTATION / LINKS ETC.

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- Foundation website
- Bootstrap website
- Sass website
- LESS website



**THAAAAAANKS!**



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