

What is Bootstrap

A front-end framework

- Responsive grid system
- UI elements like buttons and pop-ups
- Reusable classes
- Browser compatibility
- Responsive mobile first

Installing Bootstrap

<https://getbootstrap.com/docs/4.0/getting-started/download/>

- Compiled CSS and JS
- source files (Sass files)
- BootstrapCDN

Starter template

<https://getbootstrap.com/docs/4.1/getting-started/introduction/>

Containers

Fluid (100%) or fixed (max width depending on viewport)

wrap and contain content

provide basic padding and margins

help center the content on the page

Breakpoints

// Extra small devices (portrait phones, less than 576px)

@media (max-width: 575.98px) { ... }

// Small devices (landscape phones, 576px and up)

@media (min-width: 576px) and (max-width: 767.98px) { ... }

// Medium devices (tablets, 768px and up)

@media (min-width: 768px) and (max-width: 991.98px) { ... }

// Large devices (desktops, 992px and up)

@media (min-width: 992px) and (max-width: 1199.98px) { ... }

// Extra large devices (large desktops, 1200px and up)

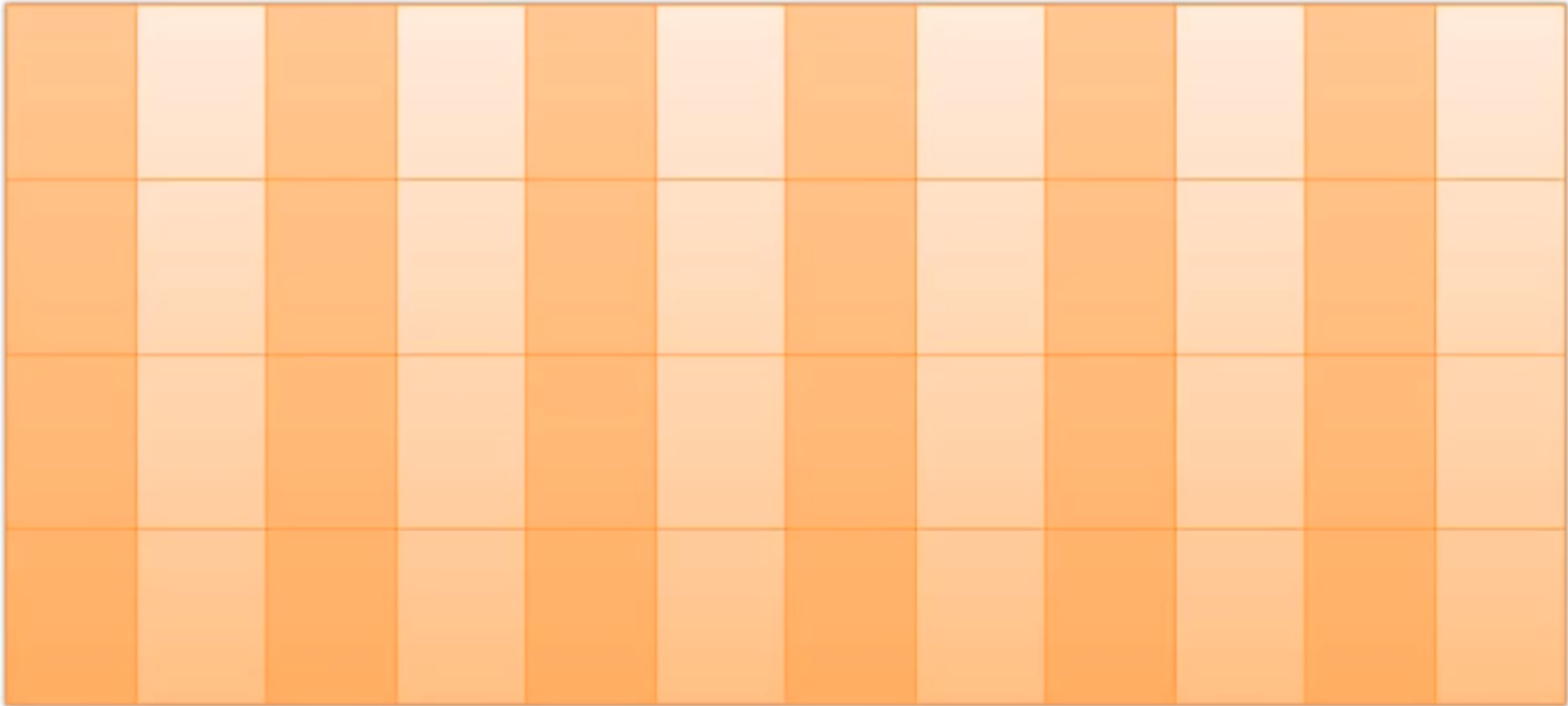
@media (min-width: 1200px) { ... }

Bootstrap Grid System

	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	Extra large ≥1200px
Max container width	None (auto)	540px	720px	960px	1140px
Class prefix	<code>.col-</code>	<code>.col-sm-</code>	<code>.col-md-</code>	<code>.col-lg-</code>	<code>.col-xl-</code>
# of columns	12				
Gutter width	30px (15px on each side of a column)				
Nestable	Yes				
Column ordering	Yes				

Based on flexbox

Grid System



12 columns

Unrestricted number of rows

Grid System

[illegible]

Grid System

[illegible]

Grid System

.col-xx-6				.col-xx-6			
.col-xx-4							

Grid System

.col-xx-6				.col-xx-6			
.col-xx-4		.col-xx-4		.col-xx-4			

Grid System

.col-xx-6						.col-xx-6					
.col-xx-4				.col-xx-4				.col-xx-4			
.col-xx-3											

Grid System

	.col-xx-9	.col-xx-3

Grid System

.col-xx-9						.col-xx-3				
		.col-xx-10 .col-xx-offset-2								
.col-xx-6					.col-xx-3 .col-xx-offset-2					

Grid System

Rows must be placed within a `.container` (fixed-width) or `.container-fluid` (full-width) for proper alignment and padding

Use rows to create horizontal groups of columns

Content should be placed within columns, and only columns may be immediate children of rows

Predefined classes like `.row` and `.col-sm-4` are available for quickly making grid layouts

Grid columns are created by specifying the number of 12 available columns you wish to span. For example, three equal columns would use three `.col-sm-4`

Column widths are in percentage, so they are always fluid and sized relative to their parent element

The biggest **difference between Bootstrap 3 and Bootstrap 4** is that Bootstrap 4 now uses flexbox, instead of floats. One big advantage with flexbox is that grid columns without a specified width will automatically layout as "equal width columns" (and equal height). Example: Three elements with `.col-sm` will each automatically be 33.33% wide from the small breakpoint and up.