Bootstrap Grid System

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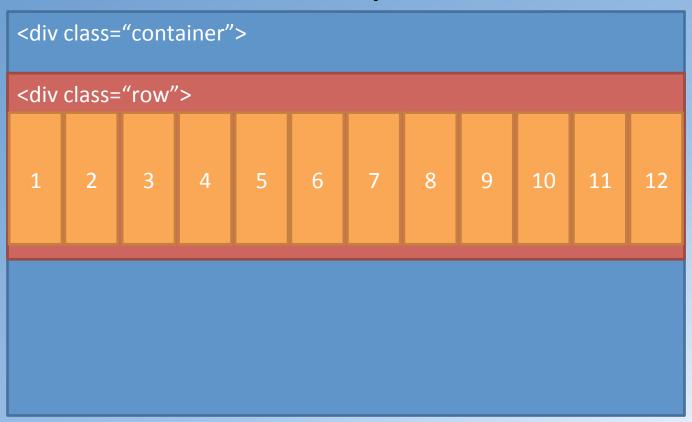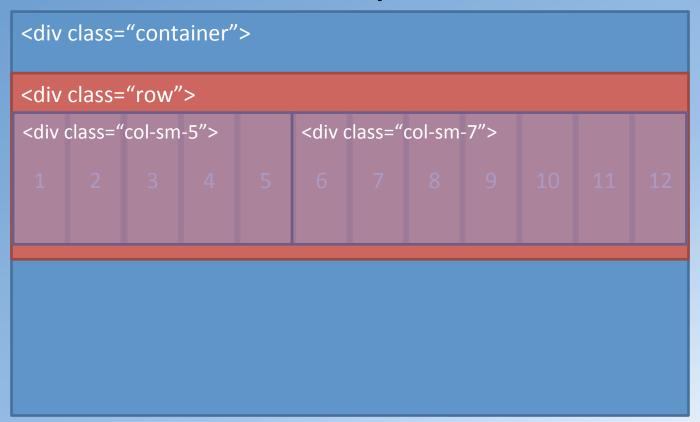
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Viewport

`<meta name="viewport" content="width=device-width, initial-scale=1">`

- The *viewport* meta tag:
  - Ensures that the screen width is set to the device width and the content is rendered with this width in mind
  - Designing the websites to be responsive to the size of the viewport
    - Bootstrap grid system

Bootstrap Grid

- Designed to be:
  - Responsive
  - Mobile first
  - Fluid

Bootstrap Grid

Bootstrap Grid

<div class="container">

<div class="row">

<div class="col-sm-5">

| 1 | 2 | 3 | 4 | 5 |

<div class="col-sm-7">

| 6 | 7 | 8 | 9 | 10 | 11 | 12 |

Bootstrap Grid

- Bootstrap makes available four classes
  - *xs for extra small*
  - *sm* for small
  - *md* for medium, and
  - *lg* for large screen sizes
- Each row in Bootstrap grid system is divided into 12 columns
- Use the classes .col-xs-*, .col-sm-*, col-md-*, and .col-lg-* for defining the layouts for the various screen sizes
- Specify how many columns each piece of content will occupy within a row, all adding up to 12 or a multiple thereof

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Bootstrap Grid Details

	Extra small (< 768 px)	Small (≥ 768px)	Medium (≥ 992 px)	Large (≥ 1200px)
Typical Form factor	Mobile phones	Tablets	Laptops	Desktops
Grid behavior	Horizontal	Collapsed to start, horizontal above breakpoints		
Container width	None (auto)	750px	970px	1170px
Class prefix	.col-xs-	.col-sm-	.col-md-	.col-lg-
# of columns	12	12	12	12
Column width	Auto	~62px	~81px	~97px
Gutter width	30px (15px on each side)			

Using Column classes

Extra Small Screens

Small, Medium and Large Screens

<div class="col-xs-12 col-sm-5">

<div class="col-xs-12 col-sm-7">

<div class="col-xs-12 col-sm-5">

<div class="col-xs-12 col-sm-7">

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Using Column Push and Pull

Extra Small Screens

Small, Medium and Large Screens

<div class="col-xs-12 col-sm-5 col-sm-push-7">

<div class="col-xs-12 col-sm-7 col-sm-pull-5">

<div class="col-xs-12 col-sm-7 col-sm-pull-5">

<div class="col-xs-12 col-sm-5 col-sm-push-7">

Column Offsets

Nesting Columns

Exercise: Responsive Design and Bootstrap Grid System

- Create responsive websites using the Bootstrap grid system

- Customize the CSS classes through your own additions in a separate CSS file