

Applying Responsive Techniques



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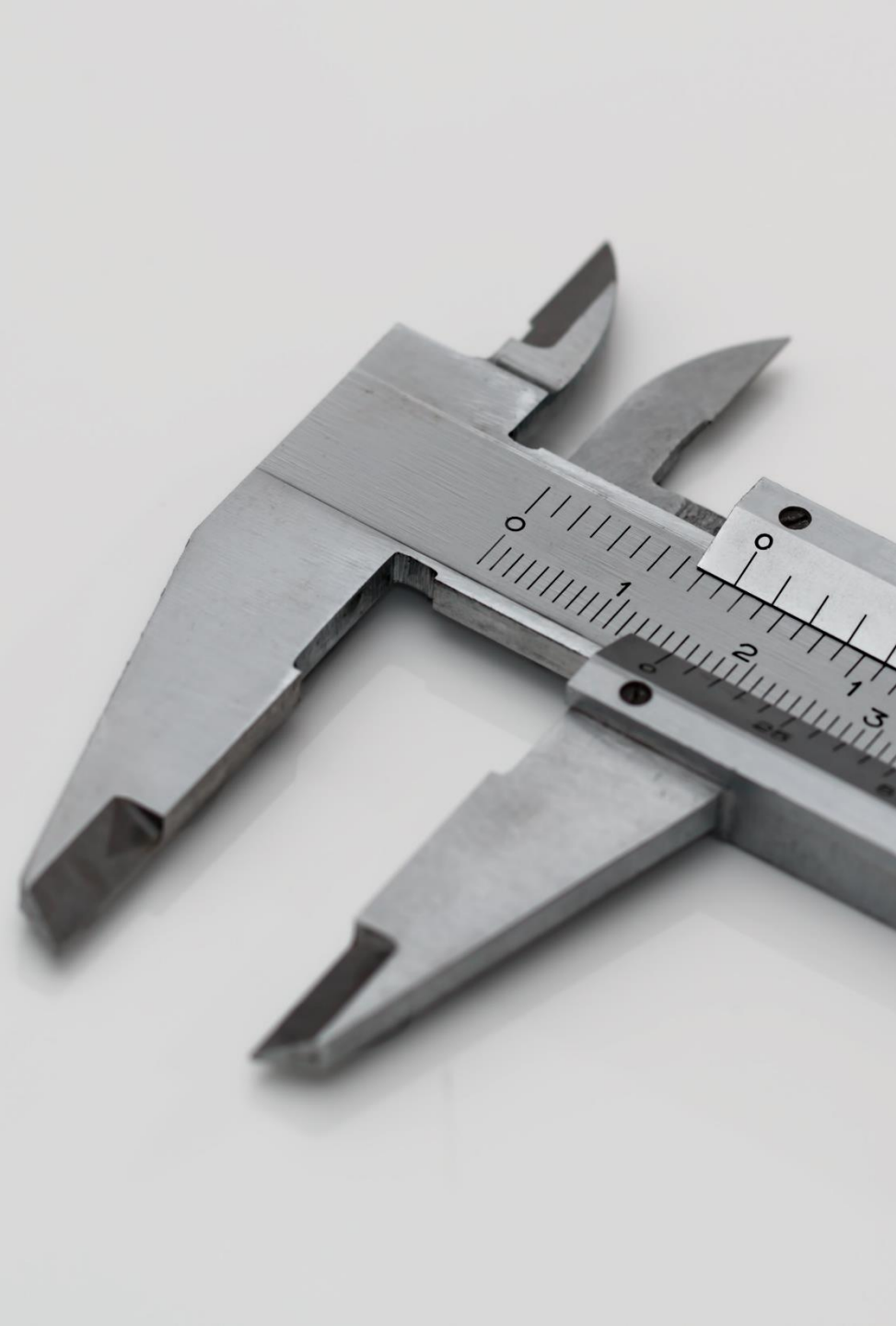
Overview



Applying Responsive Techniques

- What is Responsive Design?
- Bootstrap responsive breakpoints
- Using the grid responsively
- Layout Utilities
- Auto-sizing grid elements

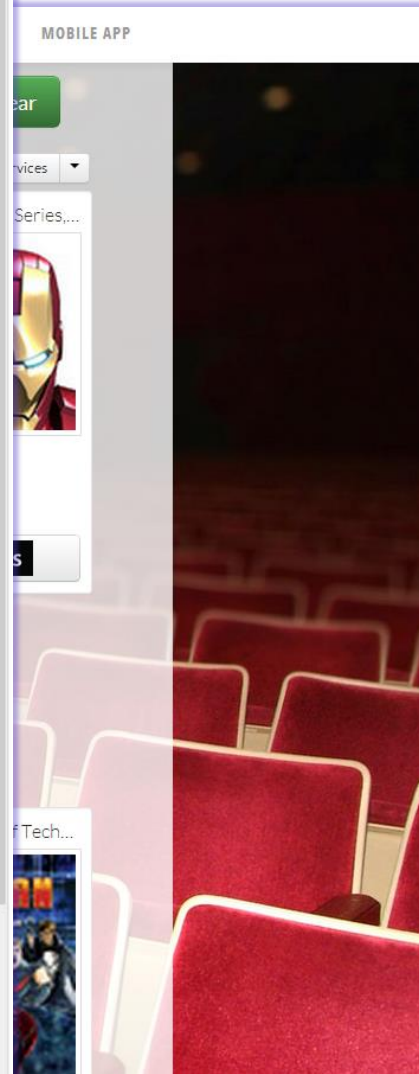
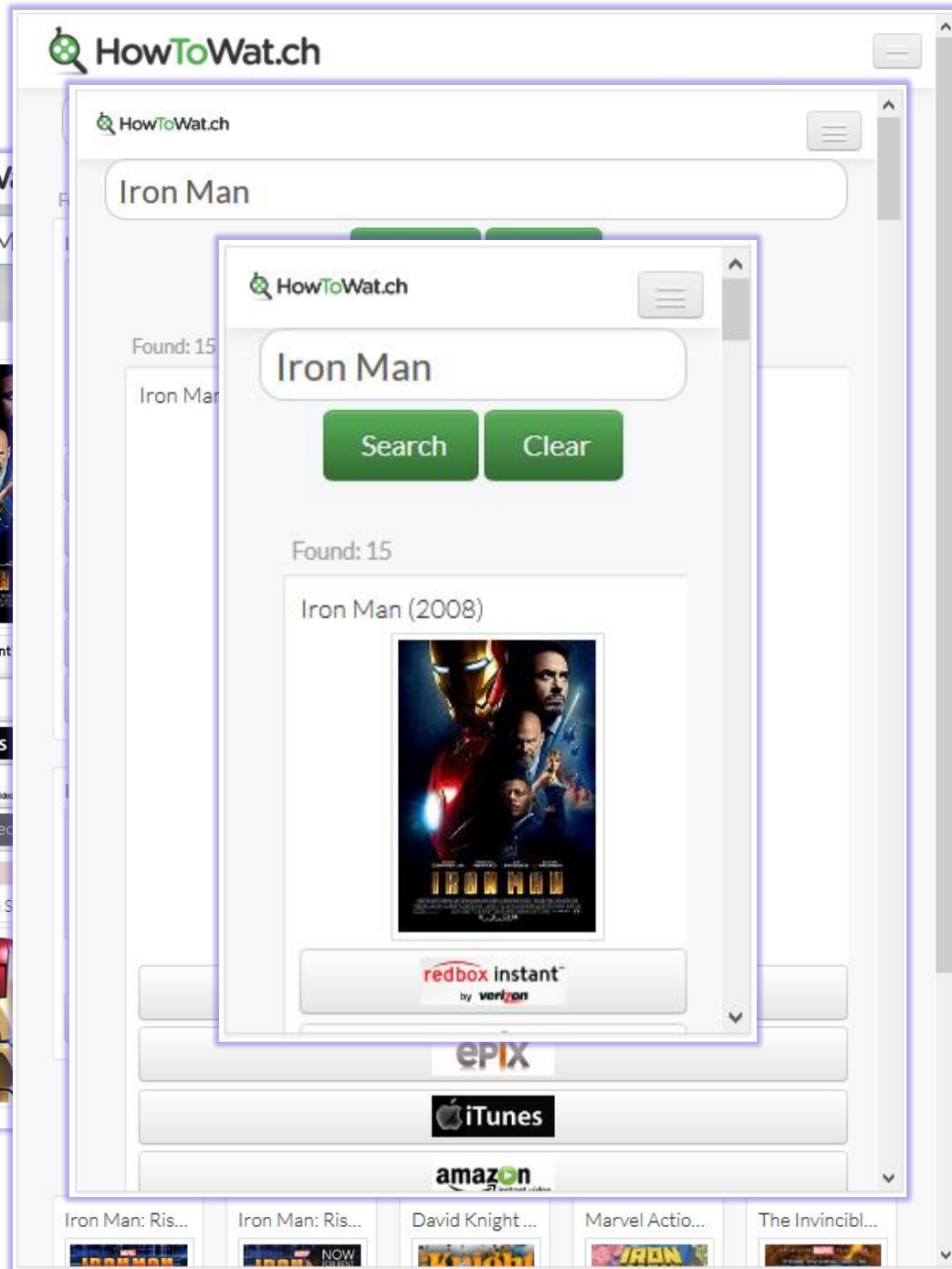
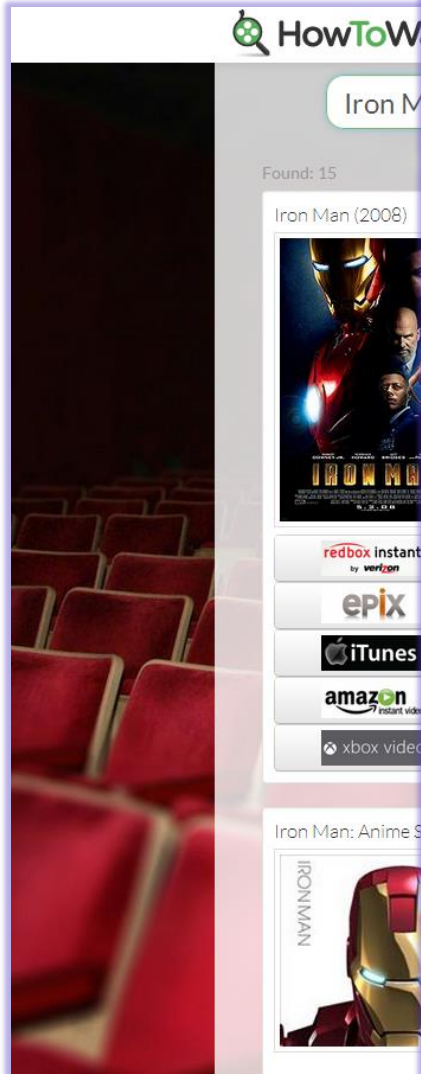




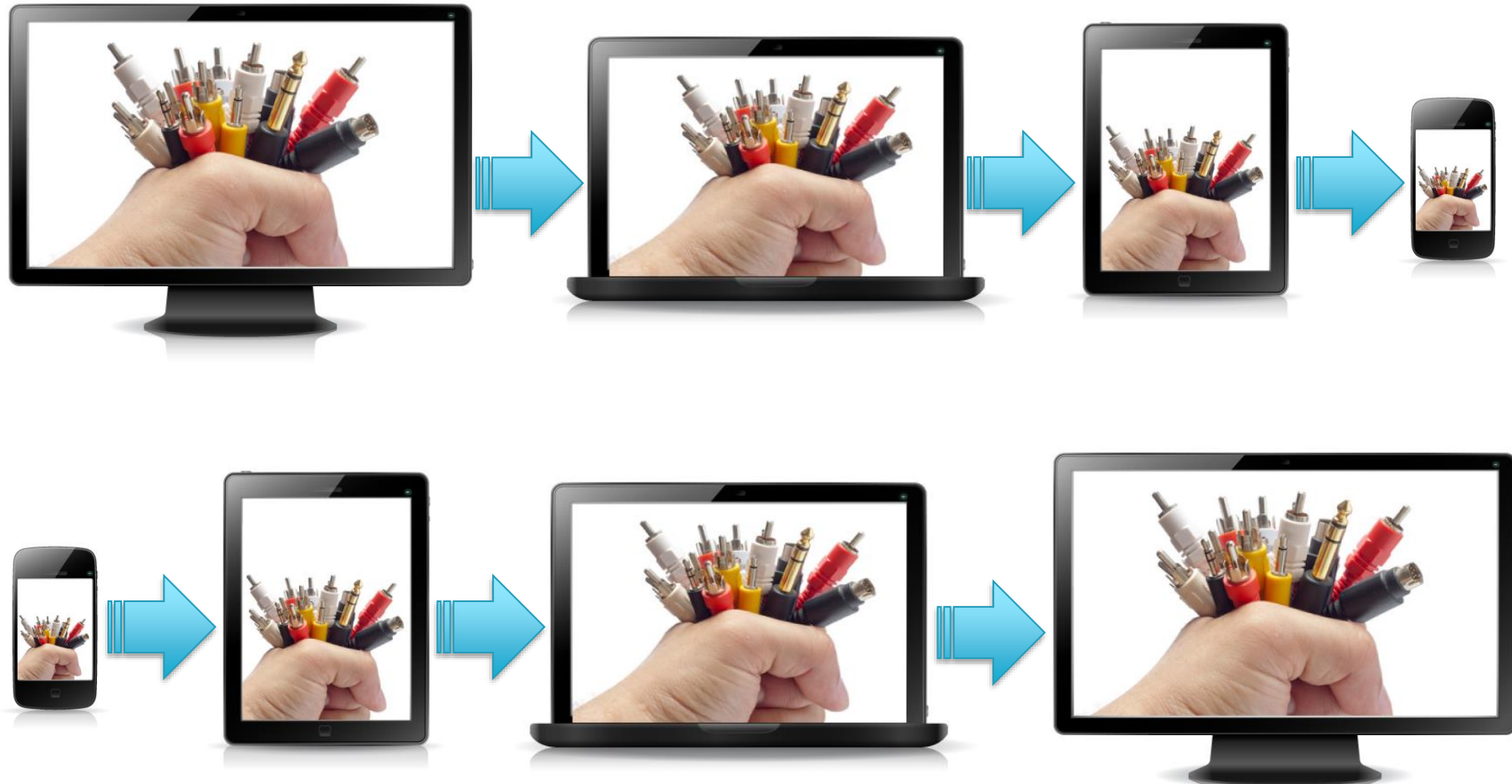
What is Responsive Design?

- Stop Designing to the Browser
- Devices are better indication of size
- Design to adjust to screen size





Progressive Enhancement



Mobile First Responsive Web Design

Main CSS (Common Design) (0-576px)

> 576px

> 768px

> 992px

> 1200px



Media Queries

.css

```
// your.css
```

```
#main { width: 470px; }
```

```
@media only screen and (min-width: 768px) {  
    #main { width: 760px; }  
}
```

```
@media only screen and (min-width: 992px) {  
    #main { width: 989px; }  
}
```

Responsive Breakpoints

Classes

(no identifier) < 576px

-sm >= 576px

-md >= 768px

-lg >= 992px

-xl >= 1200px

Responsive Breakpoints

Classes

<code>.col-12</code>	<code>< 576px</code>
<code>.col-sm-12</code>	<code>>= 576px</code>
<code>.col-md-12</code>	<code>>= 768px</code>
<code>.col-lg-12</code>	<code>>= 992px</code>
<code>.col-xl-12</code>	<code>>= 1200px</code>

Demo



Using the Grid Responsively



Layout Utilities

Display

.d-{display}:

.d-block display: block;

.d-inline display: inline;

.d-none: display: none;

.d-inline-block: display: inline-block;

etc.

Layout Utilities

.d-{size}-{display}:

.d-md-block *display: block on md+*

.d-xl-none *display: none on xl*

Demo



Using the Display Utilities



Layout Utilities

Float

.float-{type}

.float-left

.float-right

.float-none

Layout Utilities

.float-{size}-{type}

.float-left *xs and above*

.float-md-left *md and above*

.float-xl-left *xl only*

Demo



Using the Float Utilities



Layout Utilities

Padding and Margin

`.{type}-{size}-{value}`

`.p-2`

Padding for xs+

`.p-md-1`

Padding for md+

`.ml-lg-2`

Margin left for lg+

`.pb-sm-auto`

Padding bottom for sm+

Demo



Using the Layout Utilities



Layout Utilities

.text-{type}

.text-center

.text-left

.text-right

.text-justify

Layout Utilities

.text-{size}-{type}

.text-center

For xs+

.text-md-center

For md+

Demo



Using the Text Utilities



Auto Columns

Simple Auto-Columns

```
<div class="row">  
  <div class="col">...</div>  
  <div class="col">...</div>  
  <div class="col">...</div>  
</div>
```

Auto Columns

```
<div class="row">  
  <div class="col">...</div>  
  <div class="col">...</div>  
  <div class="w-100"></div> <!-- Line break -->  
  <div class="col">...</div>  
</div>
```

Auto Columns

```
<div class="row">  
  <div class="col">...</div>  
  <div class="col">...</div>  
  <div class="w-100 d-md-none"></div>  
  <div class="col">...</div>  
</div>
```


Demo



Responsive Auto Columns



What We've Learned



All responsive breaks start with the extra-small device



Responsive modifiers allows you to specify changes at breakpoints



Be aware that it's mobile-first, bottom-up responsive design



Up Next: Advanced Layout with Flexbox

