

HTML



CSS



HTML & CSS: LEVEL 1

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Week 5



SESSION OVERVIEW

- Review classes, ids, and floats
- Positioning
- Tables
- Fonts
- Evaluations



REVIEW!

{ CLASSES AND IDS

You can add **class** and **id** to any HTML element to identify it for styling.

- You decide the **class** and **id** values – be descriptive!

```
<p class="important">Big text</p>
```

```
<p class="anyLettersOrNumbersOr_Or-">Still  
totally valid</p>
```

{} CLASSES

Multiple elements can have the same **class**

In CSS, target a class with a **period**

```
.kittens { color: gray; }
```

```
<p class="kittens">This will be gray.</p>
```

{ IDS

Only **one** element per page can use the same **id**

In CSS, target an id with a **hash**:

```
#kittenContainer { color: gray; }
```

```
<div id="kittenContainer">This will be  
gray.</div>
```

{} HOW TO CHOOSE BETWEEN THEM

If you think it's likely or possible that you'll want to apply the same style to multiple things, definitely use `class`

If your element is guaranteed to be the only one on the page, you can use `id` – or you can still use `class`

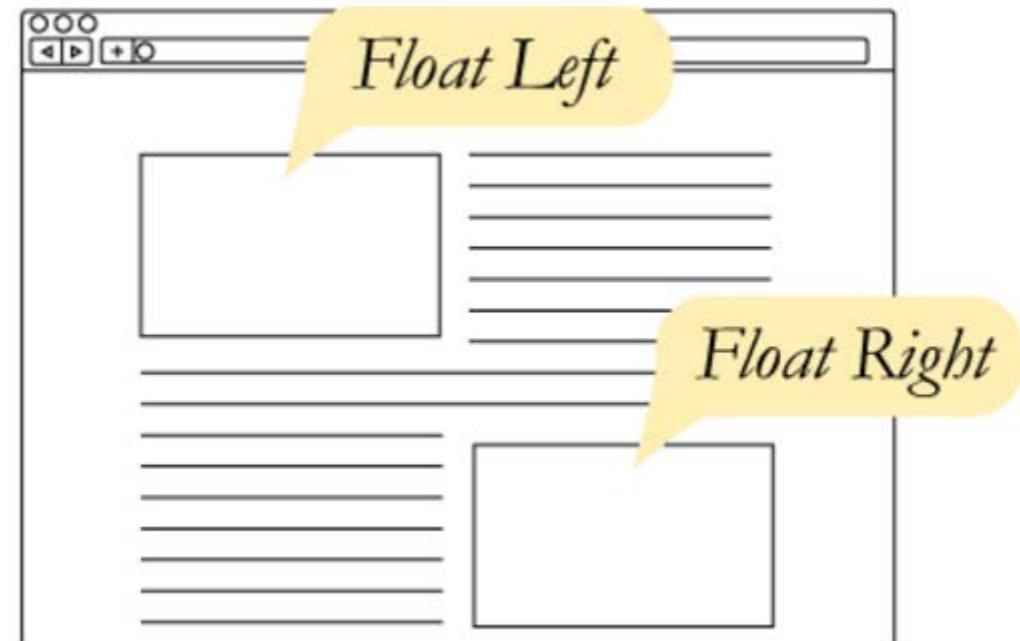
If your element needs to be linked to directly, use `id`

CSS FLOATS

The **float** property takes an element out of the normal flow and “floats” it to the left or right side of its container.

- This allows other content to flow around it

```
img { float: left; }
```

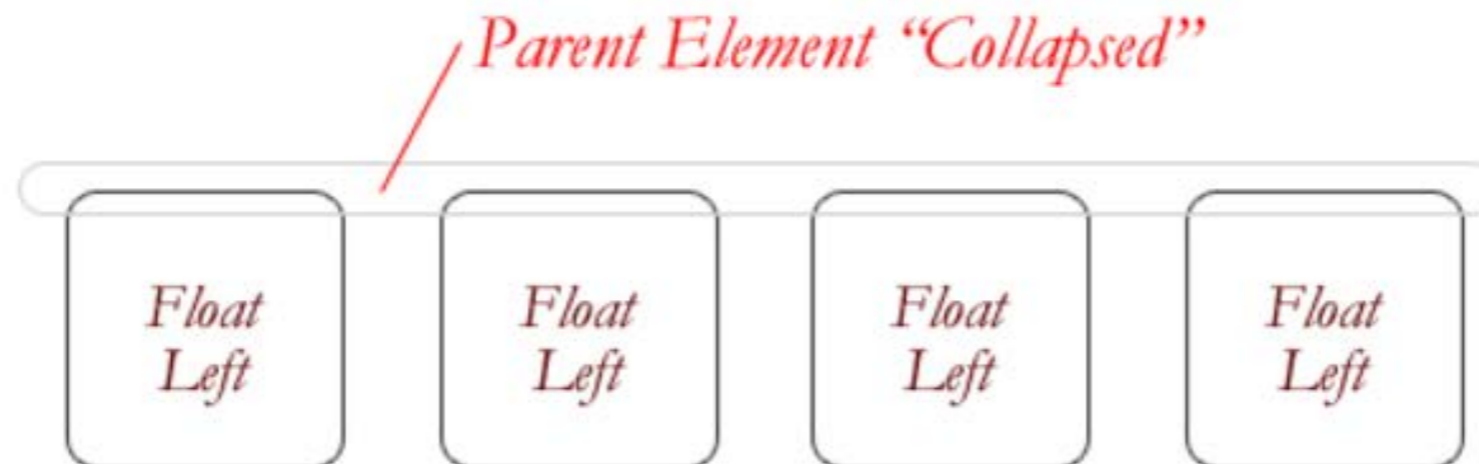


CSS FLOATS

The three values for `float` are:

- `left`
- `right`
- `none`

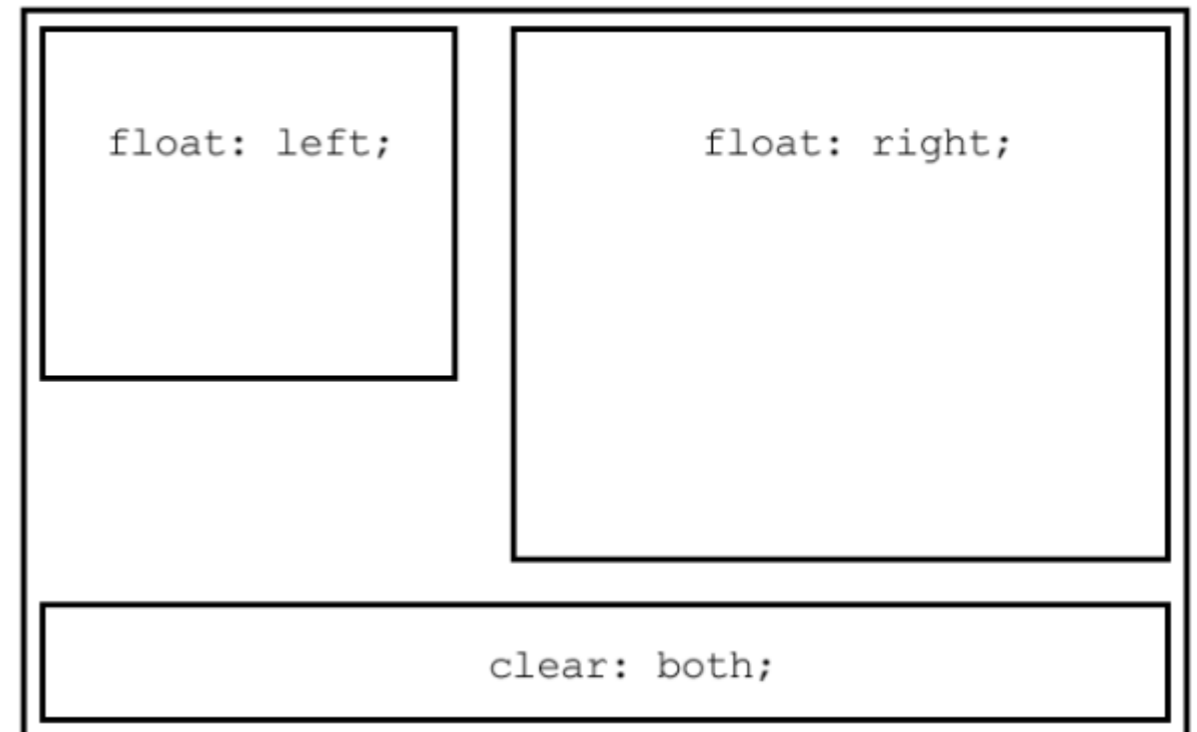
If everything in a container is floated, then the container thinks it's empty.



THE CLEAR PROPERTY

The **clear** property is the sister property to **float**

- It doesn't do much until there are floated elements on the page
- An element with **clear** applied to it will force itself **below** the floated element
- Everything after that will be back in the normal flow
- This “stretches” out the container and keeps it from collapsing



THE OVERFLOW PROPERTY

overflow is a CSS property that governs how content looks when it breaks out of its container.

By default, elements have **overflow: visible**, which means all content is fully visible.

overflow: auto adds scrollbars when the content is bigger than its container.



QUESTIONS?

WEB FONTS

WEB FONTS

Remember that `font-family` looks for a font installed on the user's local machine.

```
body { font-family: Tahoma, sans-serif; }
```

If the Tahoma font isn't found, the browser will default to a generic sans-serif font instead.

What if you want to use an interesting font that most people aren't likely to have installed?

WEB FONTS

The absolutely easiest way to get custom fonts is to link to a CDN font stylesheet in the head of your page:

```
<link href="https://fonts.googleapis.com/css?family=Roboto" rel="stylesheet">
```

CDN means “Content Delivery Network”

- A fancy way of saying a big, reliable company hosts the file for you
- Google hosts 100s of free fonts

WEB FONTS



```
<link href="https://fonts.googleapis.com/css?family=Roboto"
rel="stylesheet">
```


Once you include a font stylesheet from a CDN, you can refer to the font in a **font-family** rule, just like you would a web-safe font:

```
p { font-family: Roboto, sans-serif; }
```


WEB FONTS

1 Family Selected

Your Selection [Clear All](#)  

Roboto 

EMBED [CUSTOMIZE](#) Load Time **Fast**

Embed Font

To embed your selected fonts into a webpage, copy this code into the <head> of your HTML document.

STANDARD [@IMPORT](#)

```
<link href="https://fonts.googleapis.com/css?family=Roboto" rel="stylesheet">
```

Specify in CSS

Use the following CSS rules to specify these families:

```
font-family: 'Roboto', sans-serif;
```

When you choose a font Google will tell you what name to use.

WEB FONTS

Roboto
Christian Robertson (12 styles)

All their
equipment and
instruments are
alive.

Baloo Bhaina
Ek Type (1 style)

**A red flair
silhouetted the
jagged edge of a
wing.**

Try typing directly into the text fields. [GOT IT](#)

Diplomata SC
Eduardo Tunni (1 style)

**I
WATCHED
THE
STORM,
SO
BEAUTIFUL
YET
TERRIFIC.**

Open Sans
Steve Matteson (10 styles)

Almost before we
knew it, we had
left the ground.

Lato
Lukasz Dziedzic (10 styles)

A shining crescent
far beneath the
flying vessel.

Slabo 27px
John Hudson (1 style)

It was going to be a
lonely trip back.

Ranga
TipTopTyp (2 styles)

*Mist enveloped the ship
three hours out from port.*

Oswald
Vernon Adams, Kalapi Gajjar, Cyreal (6 styles)

My two natures had
memory in common.

Roboto Condensed
Christian Robertson (6 styles)

Silver mist suffused
the deck of the ship.

Source Sans Pro
Paul D. Hunt (12 styles)

The face of the
moon was in
shadow.

Montserrat
Julieta Ulanovsky (18 styles)

She stared
through the
window at the
stars.

Griffy
Neapolitan (1 style)

The recorded voice
scratched in the
speaker.

<https://fonts.google.com/>

WEB FONTS

CONS:

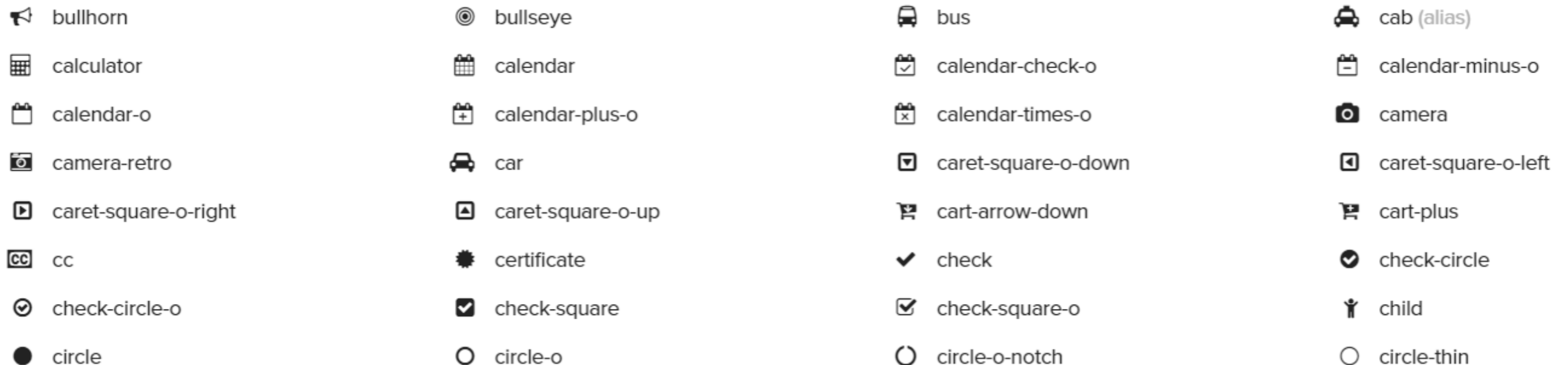
- Relies on a 3rd party to provide assets
- If the request times out, the font won't download (so always provide fallbacks!)

PROS:

- Extremely easy to get working
- Possibility that user already has the font in their web cache due to visiting other sites that use the same font

ICON FONTS

[Font Awesome](#) is a free icon font that is used in many real-world projects.



An icon font means letters have been replaced with vector images

- So to color or re-size icons on your site, just use the CSS **font** properties we already learned.

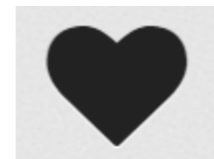
ICON FONTS

To quickly start using Font Awesome, add this stylesheet to the head of your page:

```
<link href="https://maxcdn.bootstrapcdn.com/font-awesome/4.7.0/css/font-awesome.min.css" rel="stylesheet">
```

Click an icon from the [Font Awesome](#) website, and copy the markup they provide, like:

```
<span class="fa fa-heart"></span>
```



FONT AWESOME

You can put a Font Awesome class on any element:

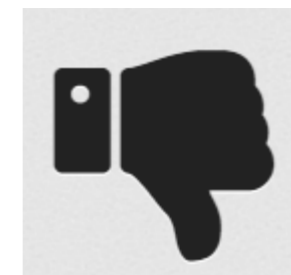
```
<span class="fa fa-paw"></span>
```



```
<i class="fa fa-cog"></i>
```



```
<h1 class="fa fa-thumbs-down"></h1>
```



WEB FONTS

The other way to ensure people see the correct font is to download the font onto their computer when they load your page.

- You do this by first downloading a font into a folder on your website
- There are free fonts available for download at websites like [Font Squirrel](#) or [Font Spring](#)
- After you have a copy of the font you can share it just like any other media file on your website

WEB FONTS

Some considerations with hosting fonts:

- Have to consider licensing fees – many fonts cost money
- Some fonts prohibit commercial use, or limit the number of pageviews

@FONT-FACE

If you download a font that you want to use on your site, add `@font-face` before any other styles:

```
@font-face {  
  font-family: MyWebFont;  
  src: url('webfont.eot');  
       url('webfont.eot?#iefix') format('embedded-opentype'),  
       url('webfont.woff') format('woff'),  
       url('webfont.ttf') format('truetype'),  
       url('webfont.svg#svgFontName') format('svg');  
}
```

(The good news is, font sites will provide this chunk of CSS for you to copy into your stylesheet!)

@FONT-FACE

```
@font-face {  
  font-family: MyWebFont;  
  src: url('webfont.eot');  
       url('webfont.eot?#iefix') format('embedded-opentype'),  
       url('webfont.woff') format('woff'),  
       url('webfont.ttf') format('truetype'),  
       url('webfont.svg#svgFontName') format('svg');  
}
```

Different browsers support different font filetypes

- Modern browsers use woff
- IE needs eot
- Mobile devices need ttf or svg



PRACTICE TIME!

ASSIGNMENT

Find a free font from [Google fonts](#) and use it on your site by including the font stylesheet.

- Apply the font to some (or all) elements on the page

Include the Font Awesome stylesheet.

- Display at least two different icons
- Make them different sizes and/or colors
- Bonus points: what other CSS can you apply to the icons?



CSS POSITIONING

3 WEB LAYOUT PROPERTIES

- **display**: dictates how elements behave within the box model
- **float**: moves elements around within the page flow
- **position**: takes elements entirely out of the page flow

CSS POSITIONING

The `position` property specifies how an element is positioned on the page. Possible values are:

- `static`
- `fixed`
- `absolute`
- `relative`

The default `position` is `static`, which just means that the element obeys whatever its box model rules tell it to do.

CSS POSITIONING

There are 4 directional properties that affect positioning:

- `left`
- `right`
- `top`
- `bottom`

The value is a number (positive or negative) followed by a unit.

They define how far an element is offset that direction.

CSS POSITIONING

top defines how far an element is offset from its original top edge.

- Positive **top** values push an element **down**
- Negative **top** values push an element **up**



CSS POSITIONING

Similarly, `left` defines how far it's offset from its original left edge.

- Positive `left` values push an element **right**
- Negative `left` values push an element **left**



POSITION: FIXED

`position: fixed` makes content “stick” to the browser window, regardless of where the user scrolls.

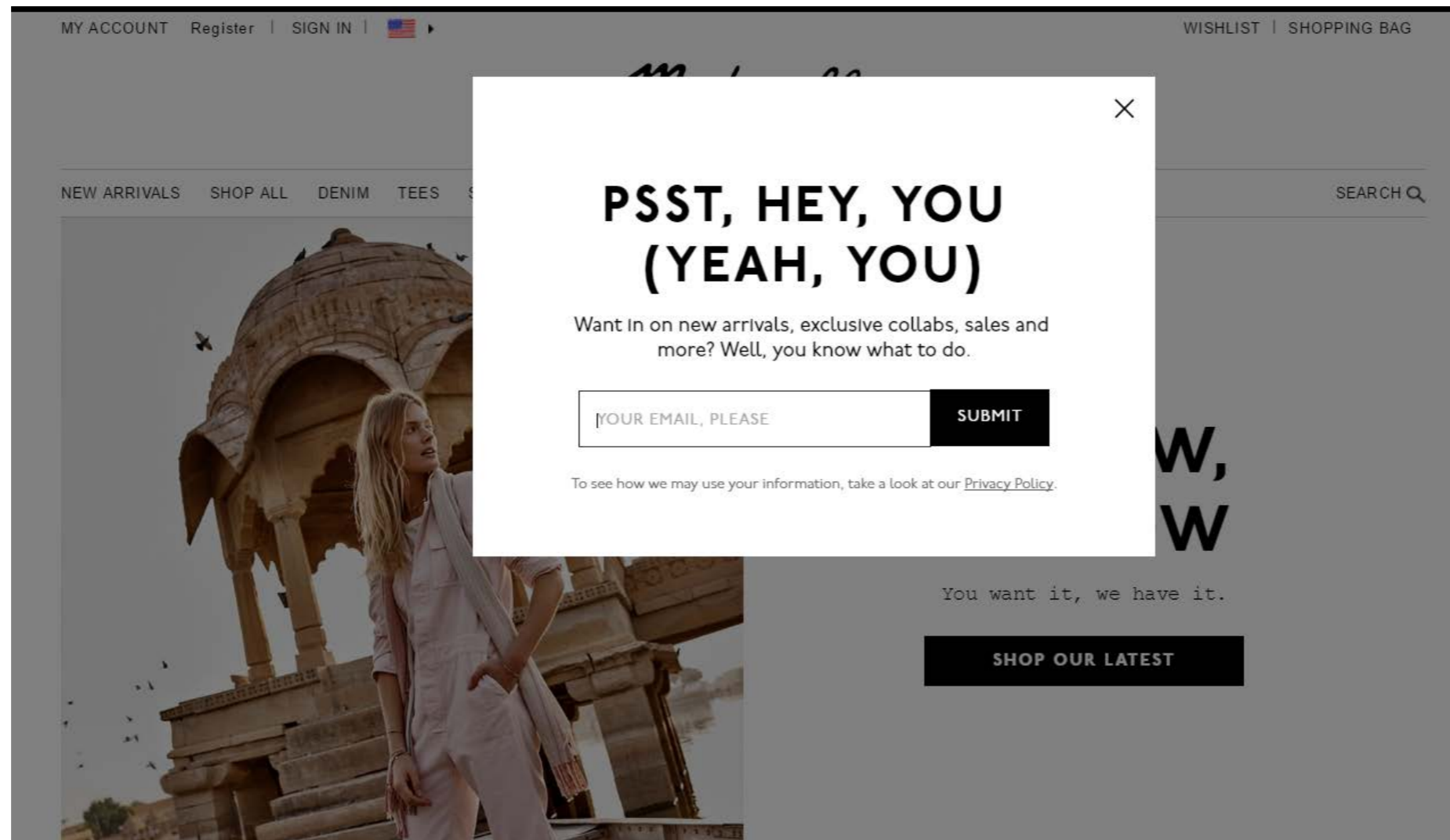
Commonly used to make headers, navigation menus, or sidebars that follow the page as it scrolls.

```
nav {  
    position: fixed;  
    left: 0;  
    top: 0;  
}
```

Hard to describe, see a [live demo](#)

FIXED

This popup background uses **position: fixed** to grey-out the entire page, even if the user scrolls.



ABSOLUTE

`position: absolute` is a powerful tool that allows you to place any page element exactly where you want it, down to the pixel.

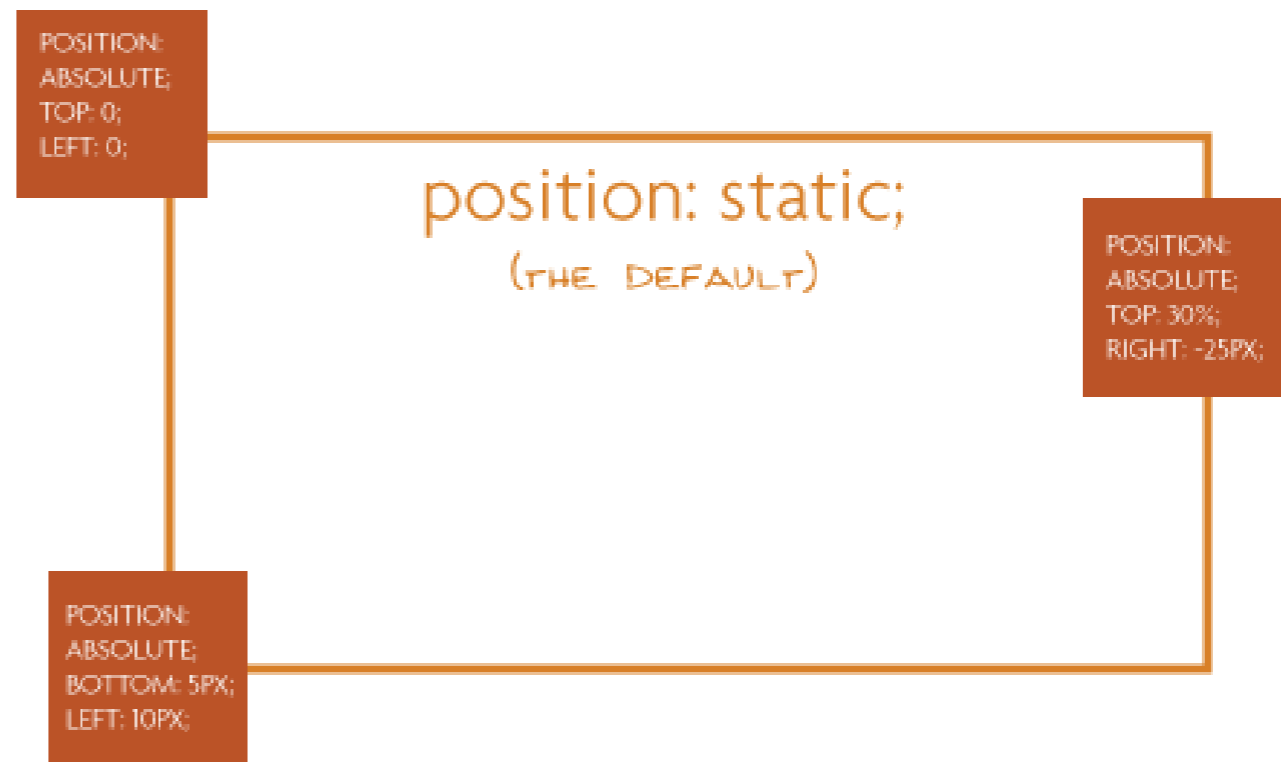
When an element has `position: absolute`, it is entirely removed from the normal flow of the page.

- That means its padding, margins, and borders no longer affect the elements around it

ABSOLUTE

An element with **position: absolute** is absolutely positioned:

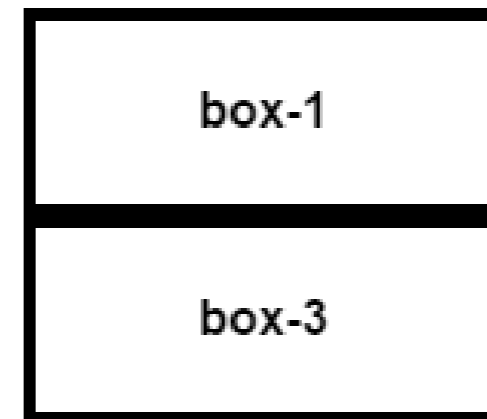
- To its closest parent with positioning
- Or (if it has no parents with positioning other than **static**), to the **body** of the page



ABSOLUTE

box-2 has the following style, which moves it to the bottom right of the page:

```
#box-2 {  
    position: absolute;  
    right: 10px;  
    bottom: 10px;  
}
```

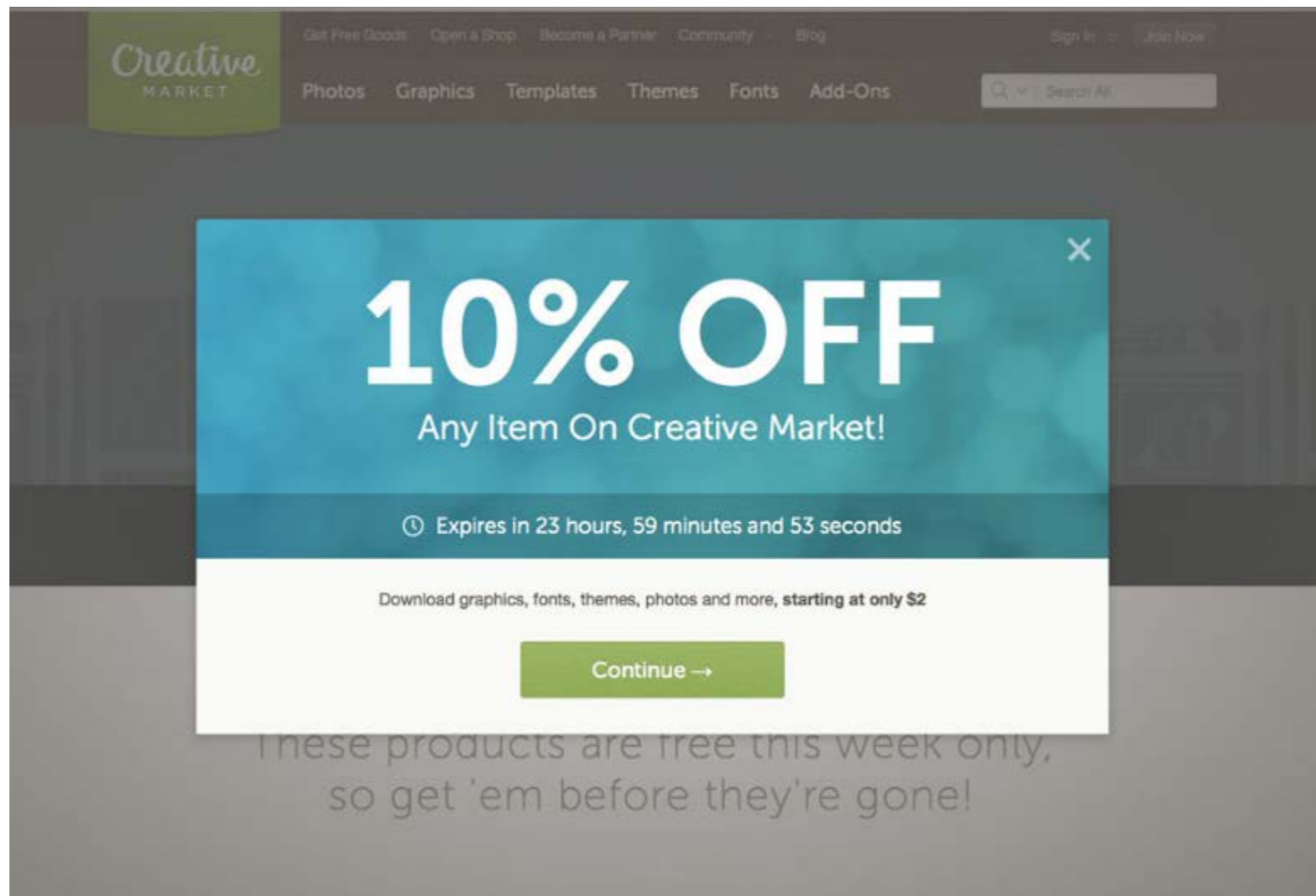


box-3 moves up to occupy the space vacated by **box-2**



ABSOLUTE POWER

position: **absolute** is commonly used when creating page modals that pop up over other content



RELATIVE

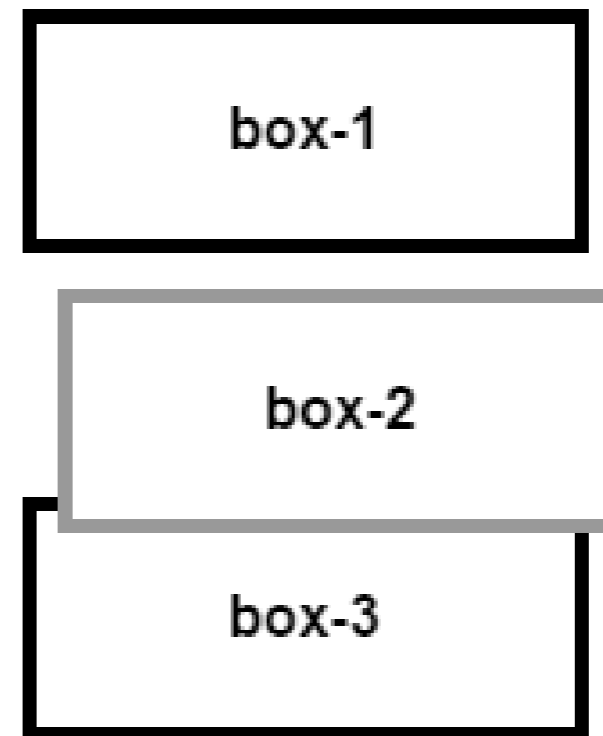
`position: relative` allows you to move an element using directional attributes (`top`, `bottom`, etc).

- If you set `position: relative` but no directional attributes, the element won't change at all
- If you set `top: 10px;` then it will be shifted 10 pixels down from where it would normally be

RELATIVE

`box-2` has the following style, which moves it down and right:

```
#box-2 {  
    position: relative;  
    left: 10px;  
    top: 10px;  
}
```



The other boxes behave like `box-2` was in its original position (unlike using negative margins).

RELATIVE

More commonly, `position: relative` is used to position other absolutely-positioned elements inside the container





PRACTICE TIME!

ASSIGNMENT

Create a new page using this page as a template:

https://alistapart.com/d/css-positioning-101/example_a.html

- Give at least one of the boxes relative positioning and apply **left**, **top**, etc.
- Give at least one of the boxes absolute positioning.
- Try putting a **section** around the boxes and give that **relative** positioning – what happens as you resize the browser?



TABLES

WHY TABLES?

Use tables to present data in a tabular format.

- Listings of people, addresses, etc
- Financial data
- Sports stats
- Product features

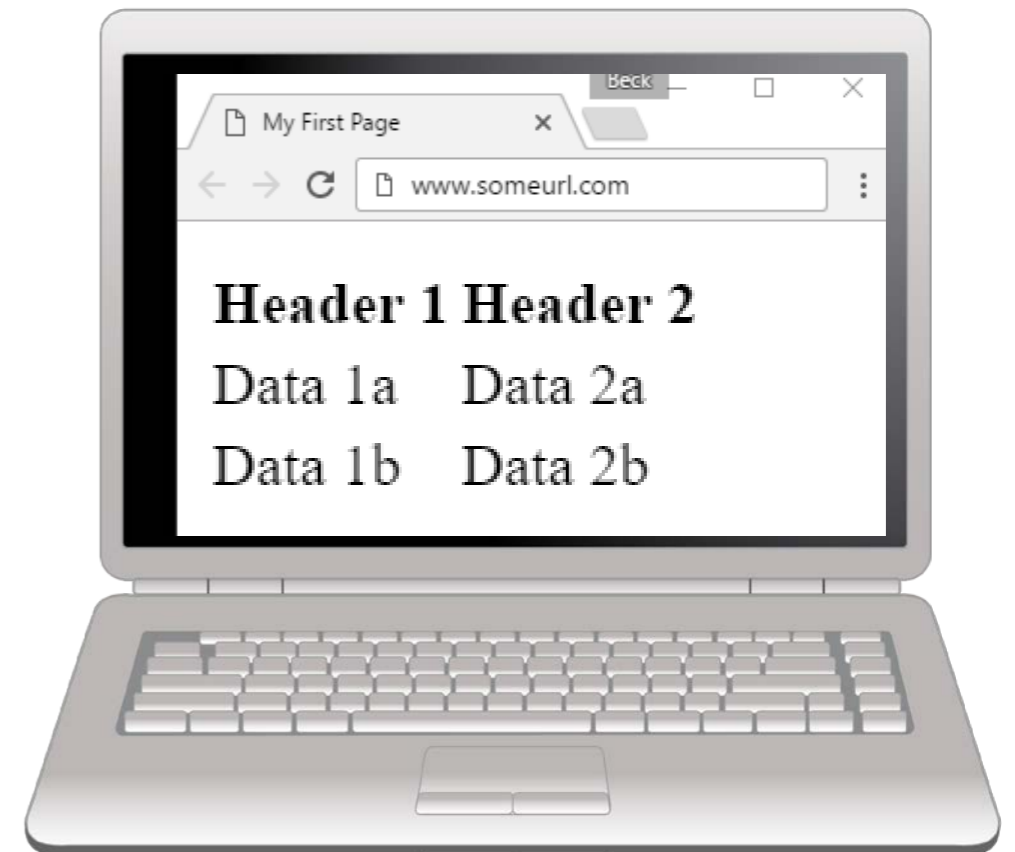
Month	Sales
January	\$ 50,000.00
February	\$ 10,000.00
March	\$ 85,000.00
April	\$ 56,000.00
May	\$ 98,000.00

TABLE ELEMENTS

- `<table>` wraps the whole table
- `<thead>` wraps the table header
- `<tbody>` wraps the main data
- `<tr>` wraps a **table row**
- `<th>` wraps a **table header cell**
- `<td>` wraps a regular **table data cell**

A BASIC TABLE

```
<table>
  <thead>
    <tr>
      <th>Header 1</th>
      <th>Header 2</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Data 1a</td>
      <td>Data 2a</td>
    </tr>
    <tr>
      <td>Data 1b</td>
      <td>Data 2b</td>
    </tr>
  </tbody>
</table>
```



<> TABLE ELEMENTS

`<tr></tr>` creates a table row.

- Every row is a new line
- Header rows and body rows both use `<tr>`
- Make sure the same number of cells appear in every row (or things will look broken)

<> TABLE ELEMENTS

`<th></th>` creates a **heading** table cell.

- Put inside a row (`<tr></tr>`) inside a `<thead>` element
- Displays as bold by default
- Screen readers will read the heading of a column when reading the corresponding item in a row

<> TABLE ELEMENTS

`<td></td>` creates a **regular** table cell.

- Put inside a row (`<tr></tr>`) inside the `<tbody>` element
- Table cells can hold any kind of content (images, links, lists, etc)
- Table cells always expand to fit their content, both horizontally and vertically
- Browsers will choose a table cell width that best fits the content (but you can change this in CSS)

STYLING TABLES

Tables can be styled using the CSS properties we've already discussed.

Employee	Salary	Bonus	Supervisor
Stephen C. Cox	\$300	\$50	Bob
Josephin Tan	\$150	-	Annie
Joyce Ming	\$200	\$35	Andy
James A. Pentel	\$175	\$25	Annie

FILM	YEAR
Citizen Kane Orson Welles, Joseph Cotten, Dorothy Comingore	1941
Gone With The Wind Clark Gable, Vivian Leigh	1939
Casablanca Humphrey Bogart, Ingrid Bergman	1942

STYLING TABLES

If you try to add borders to table cells you may notice something odd:

```
td, th { border: 1px solid #cccccc; }
```

One	Two	Three
Apples	Carrots	Steak
Oranges	Potato	Pork
Pears	Peas	Chicken

- This is because adjacent table cells each have their own distinct borders that do not merge together
- You can get rid of this behavior by setting this CSS style:

```
table { border-collapse: collapse; }
```

STYLING TABLES

You can create zebra-striped tables by using the pseudo-selector `:nth-child`

```
tr:nth-child(odd) td { background-color: #ccc; }
```

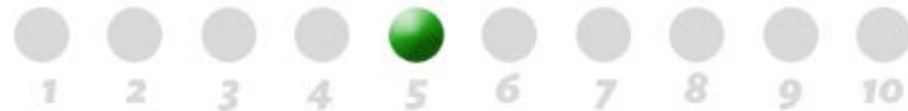
That applies a light grey background to only table data contained in odd rows.

Starter	Professional	Business	Unlimited
\$29 p/m	\$59 p/m	\$99 p/m	\$149 p/m
Unlimited bandwidth	Unlimited bandwidth	Unlimited bandwidth	Unlimited bandwidth
Free setup	Free setup	Free setup	Free setup
3 tracks	10 tracks	100 tracks	Unlimited tracks
5% transaction fee	3% transaction fee	2% transaction fee	1% transaction fee
100mb storage	500mb storage	1000mb storage	Unlimited storage
SIGN UP NOW	SIGN UP NOW	SIGN UP NOW	SIGN UP NOW

YE OLD NTH-CHILDE

Select the 5th element :

```
li:nth-child(5) { color: green; }
```



Select every 4th element starting at 1:

```
li:nth-child(4n+1) { color: green; }
```



See more: <https://css-tricks.com/useful-nth-child-recipes/>



PRACTICE TIME!

ASSIGNMENT

Create a new page and make a table with at least 4 rows and 2 columns.

- Style the table header and table body differently.
- Apply some CSS to make your table look nice:
 - box model properties (padding, margin, border)
 - font properties (size, color, font-family)
 - container properties like background-color



FORMS

FORMS

Forms are used to collect information from a user.

- The element `<form>` itself doesn't visually appear on the page – it's just a wrapper for form content

INPUT

The `input` element allows users to enter data in various ways.

- Looks different depending on its `type`
- Displays inline by default

```
<input type="text" />
```

```
<input type="radio" />
```

```
<input type="checkbox" />
```

INPUT

The `input` element **requires** an attribute called `name` to identify what data is being provided.

- Just like classes or ids, you pick what to call it – so be descriptive!

```
<input type="text" name="emailAddress" />
```

INPUT

A **placeholder** attribute in a text input creates a “watermarked” label that is inside the box.

- Often used to show formatting suggestions
- By default, the browser displays as a light grey
- But, like anything else, it can be styled with CSS using the **:placeholder** pseudo-class

```
<input type="text" name="phoneNumber"  
        placeholder="(999) 999-9999" />
```

LABELS

A label describes what should go inside the input on a form.

```
<label for="address">Address:</label>  
<input type="text" name="address" />
```

You tell the label what it's **for** by giving it the **name** of the input field it's related to.

- **label** is also an inline element, so by default it appears on the same line as an **input**

Address:

DROPDOWN

A `select` element creates a dropdown box.

A rectangular dropdown menu with a thin border. The text 'Cromwell' is displayed in the center, and a small black downward-pointing triangle is located on the right side of the box.

```
<select name="cities">
  <option value="sydney">Sydney</option>
  <option value="melbourne">Melbourne</option>
  <option value="cromwell" selected="selected">Cromwell</option>
  <option value="queenstown">Queenstown</option>
</select>
```

DROPDOWN

```
<select name="cities">  
  <option value="sydney">Sydney</option>  
  <option value="melbourne">Melbourne</option>  
  <option value="cromwell" selected="selected">Cromwell</option>  
  <option value="queenstown">Queenstown</option>  
</select>
```

Each **option** in a dropdown is a child of a **select** element.

- To choose an option when the page loads, apply the attribute **selected="selected"**

SUBMIT

Finally, a submit button at the bottom of the form.

```
<button type="submit">Click me!</button>
```



Click me!

When a button has `type="submit"`, hitting enter will automatically submit the form.



PRACTICE TIME!

ASSIGNMENT

Create a new page that contains a form.

- Include at least 2 different types of `input`, at least one `label`, and a submit button.
- Style your form.
- What happens when you click the submit button?

JAVASCRIPT/JQUERY

Javascript is a scripting language that developers use to manipulate the Document Object Model.

- jQuery is a Javascript library for easily creating animations and interactions with very little code

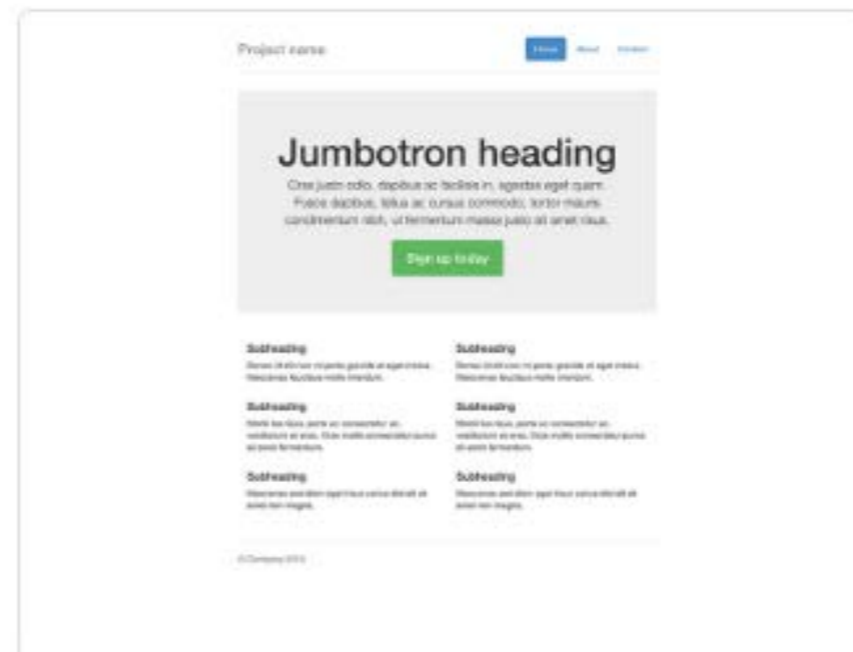
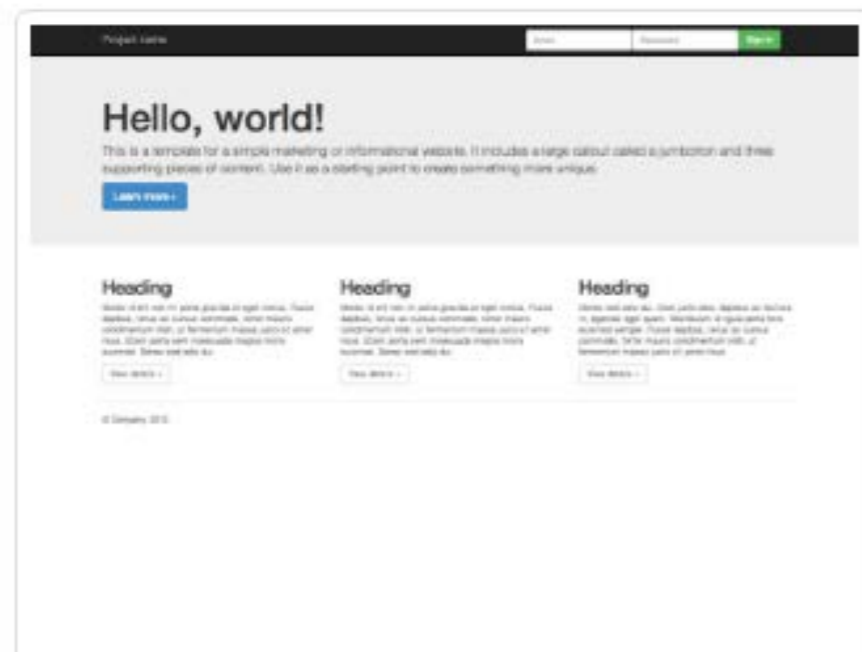


- Find elements on the page using CSS syntax

BOOTSTRAP

Bootstrap is a CSS library you can import into a project to quickly provide some base styles for your project.

<http://getbootstrap.com/getting-started/>



THATS ALL FOLKS!

Please provide feedback for this class!

<http://svcseattle.com/evaluation>