

# HTML and CSS

# Quick review

# Recall: HTML

## HTML (Hypertext Markup Language)

- Describes the **content** and **structure** of a web page; not a programming language.
- Made up of building blocks called **elements**.

<p>

HTML is <em>awesome!!!</em>



</p>

# Some HTML elements

Top-level heading: **h1**, **h2**, ... **h6**

```
<h1>Moby Dick</h1>  
<h2>Or, the Whale</h2>
```

**Moby Dick**

**Or, the Whale**

Paragraph: **p**

```
<p>Call me Ishmael.</p>
```

Call me Ishmael.

Line break: **br**

```
since feeling is first<br/>  
who pays any attention<br/>  
to the syntax of things
```

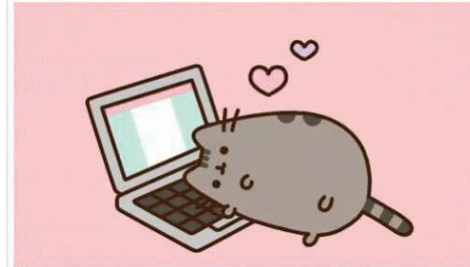
since feeling is first  
who pays any attention  
to the syntax of things

# Some HTML elements

Image: **img**

```

```



Link: **a** (note: not **link**)

```
<a href="google.com">click here!</a>
```

[click here!](#)

Strong (bold): **strong** (note: don't use **b**)

```
<strong>Be BOLD</strong>
```

**Be BOLD**

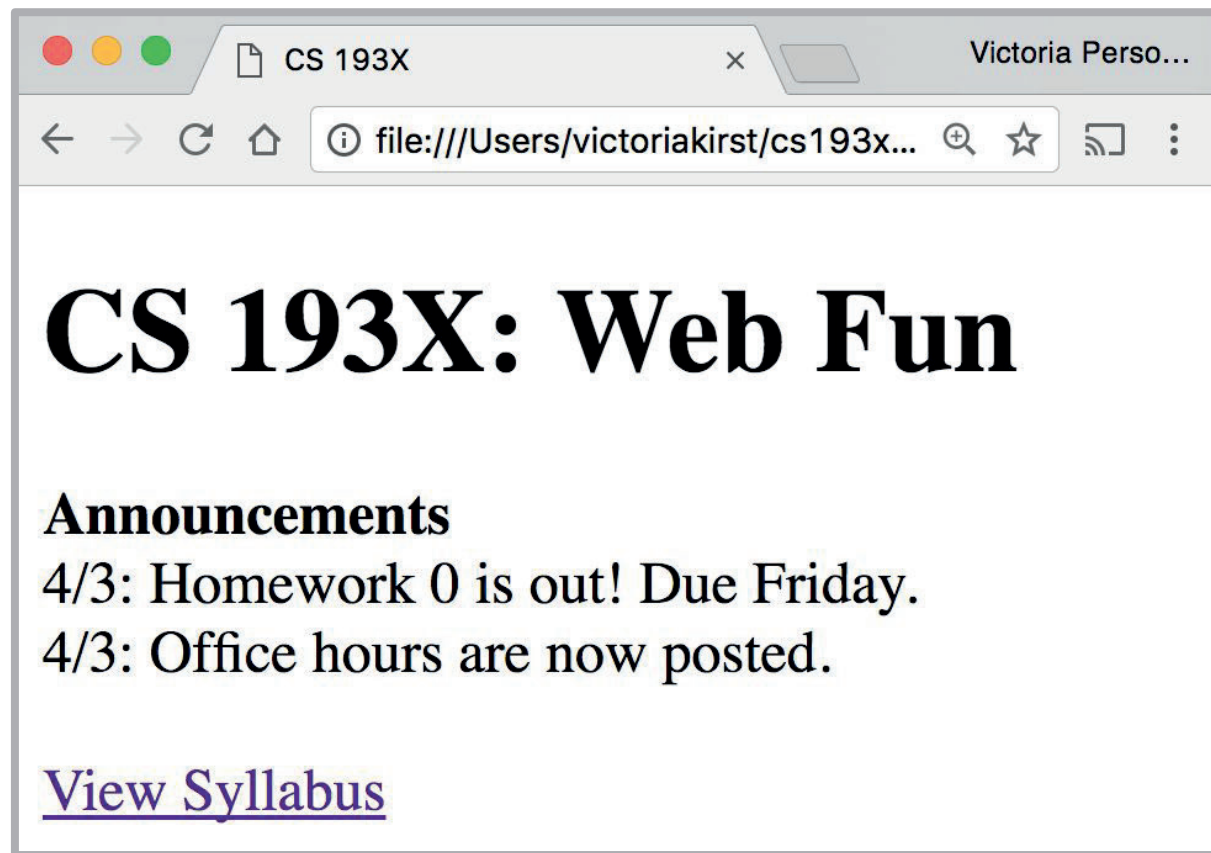
Emphasis (italic): **em** (note: don't use **i**)

```
He's my <em>brother</em> and all
```

He's my *brother* and all

# Recall: Course web page

We wrote [some HTML](#) to make the following page:



# That was weird

- We saw that HTML whitespace collapses into one space...

```
<h1>CS 193X: Web Fun</h1>  
<strong>Announcements</strong><br/>  
4/3: Homework 0 is out!<br/>
```

- Except weirdly the **<h1>** heading was on a line of its own, and **<strong>** was not.

Hmmm... strange...

Oh well, it works! Let's move on!!!

CSS



# Recall: CSS

## CSS: Cascading Style Sheets

- Describes the **appearance** and **layout** of a web page
- Composed of CSS **rules**, which define sets of styles

```
selector {  
    property: value;  
}
```

# Some CSS properties

Font face: **font-family**

```
h1 {  
  font-family: Helvetica;  
}
```

**Moby Dick**

Font color: **color**

```
h1 {  
  color: green;  
}
```

**Moby Dick**

Note that **color** always refers to **font** color, and there's no way to make it mean anything other than font color.

Background color: **background-color**

```
body {  
  background-color: pink;  
}
```

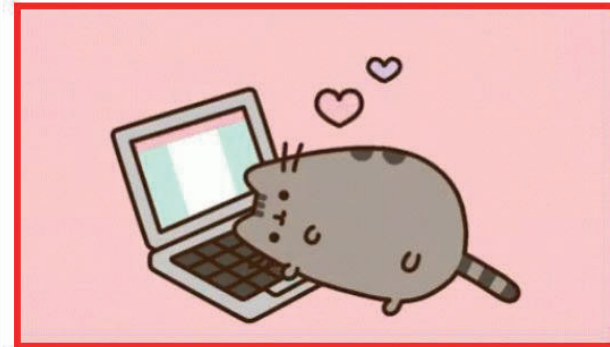
**Moby Dick**

Assign a **background-color** to **body** to make the page a different color.

# Some CSS properties

Border: **border** ([border shorthand syntax](#))

```
img {  
  border: 3px solid red;  
}
```



Text alignment: **text-align** (note: don't use <center>)

```
p {  
  text-align: center;  
}
```

Welcome to CS193X: Web Programming Fundamentals! In this class, you will learn modern full-stack web development techniques.

# CSS colors

**140 predefined names ([list](#))**

```
color: black;
```

## Hex values

```
color: #00ff00;
```

```
color: #0f0;
```

```
color: #00ff0080;
```

## rgb() and rgba()

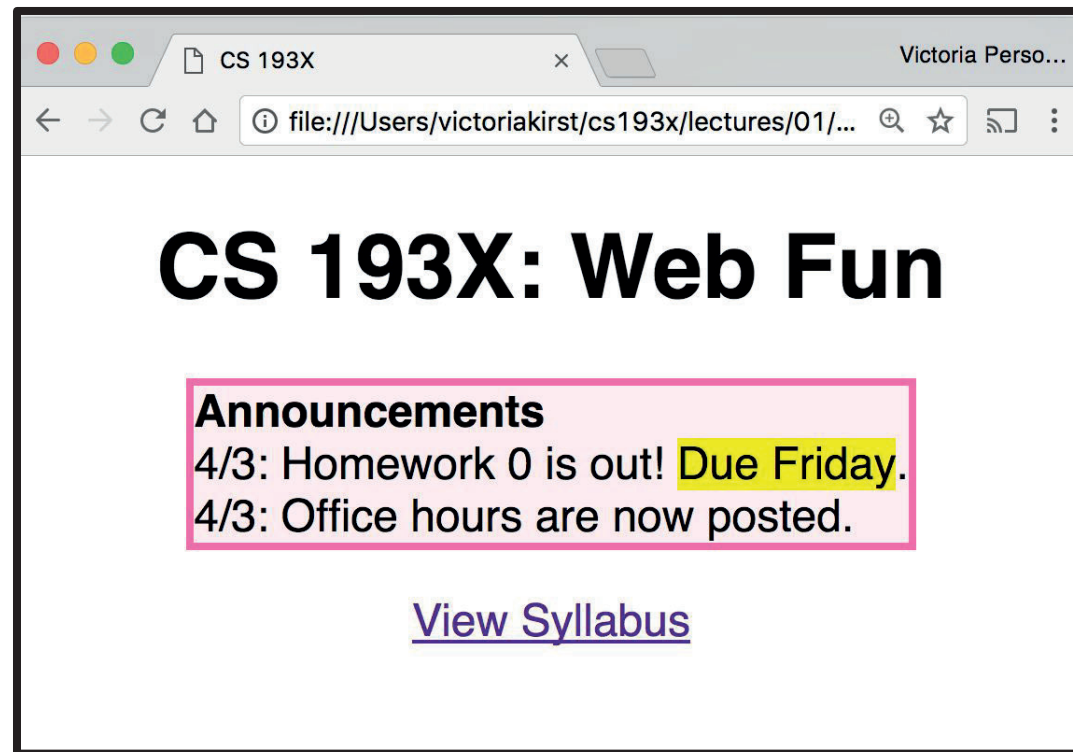
```
color: rgb(34, 12, 64);
```

```
color: rgba(0, 0, 0, 0.5);
```

- The "a" in rgba stands for alpha channel and is a transparency value
- Prefer more descriptive:
  1. Predefined name
  2. rgb / rgba
  3. Hex

# Exercise: Course web page

Let's write some CSS to style our page:



❖ [CodePen link: Follow along!](#) ❖

# Exercise: Course web page

Let's write some CSS to style our page:

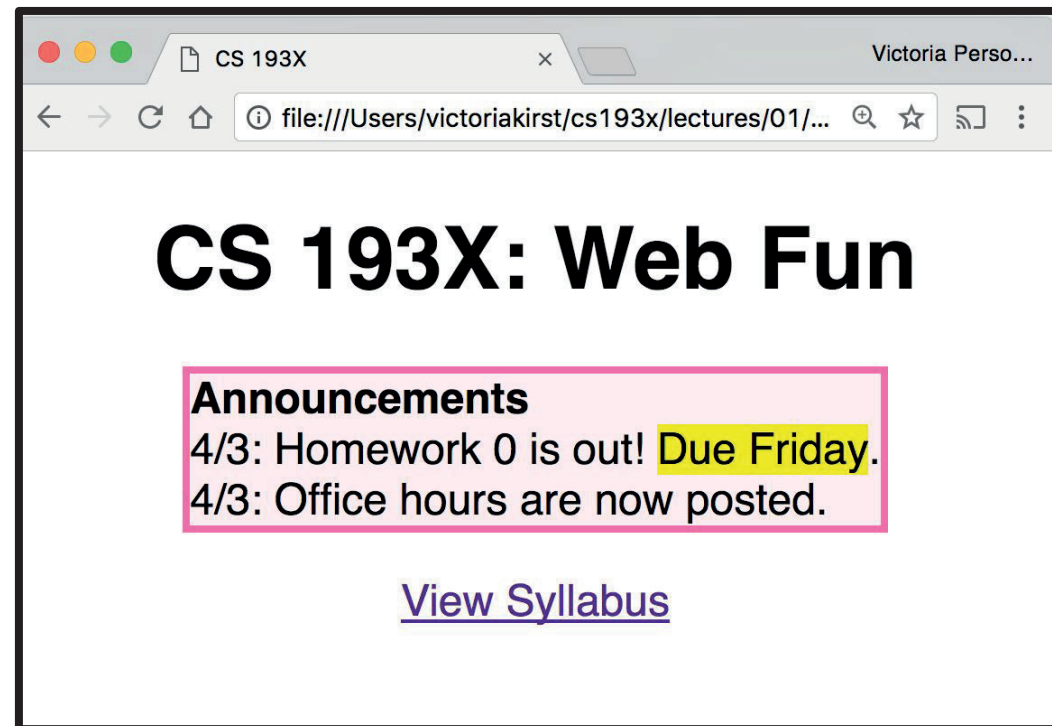
**Font face:** Helvetica

**Border:** hotpink 3px

**Background color:**  
lavenderblush

**Highlight:** yellow

- Box is **centered**
- Header and link are **centered**
- Box contents are **left-aligned**



❖ [CodePen link: Follow along!](#) ❖

# Solution?!

```
body {  
  font-family: Helvetica;  
}  
h1 {  
  text-align: center;  
}  
a {  
  text-align: center;  
}  
p {  
  border: 3px solid hotpink;  
  background-color: lavenderblush;  
}
```

Produces:

## CS 193X: Web Fun

### Announcements

4/3: Homework 0 is out! Due Friday.

4/3: Office hours are now posted.

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# CSS exercise debrief

We used some **key techniques**:

- Add invisible containers in HTML to select groups of elements in CSS.
- Apply styles to parent / ancestor element to style parent and all its children. (Will talk more about this later.)



# CSS exercise debrief

But we encountered **more weirdness...**

- `text-align: center;` didn't work on the `<a>` tag
- The box was reaaaaaally wide!
- How to center the box?!
- How do you highlight?!

How do we get from this...

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... to this?

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Q: Why is HTML/CSS so bizarre??

A: There is one crucial set of rules we haven't learned yet...

**block** vs **inline** display