# Code Your Own Website

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# This class

In this class we'll be covering the basics of how both HTML & CSS work together to make well designed websites.

# What you'll learn

- What is HTML
- What is CSS
- How you make a basic web page
- How to host your web site on neocities.org

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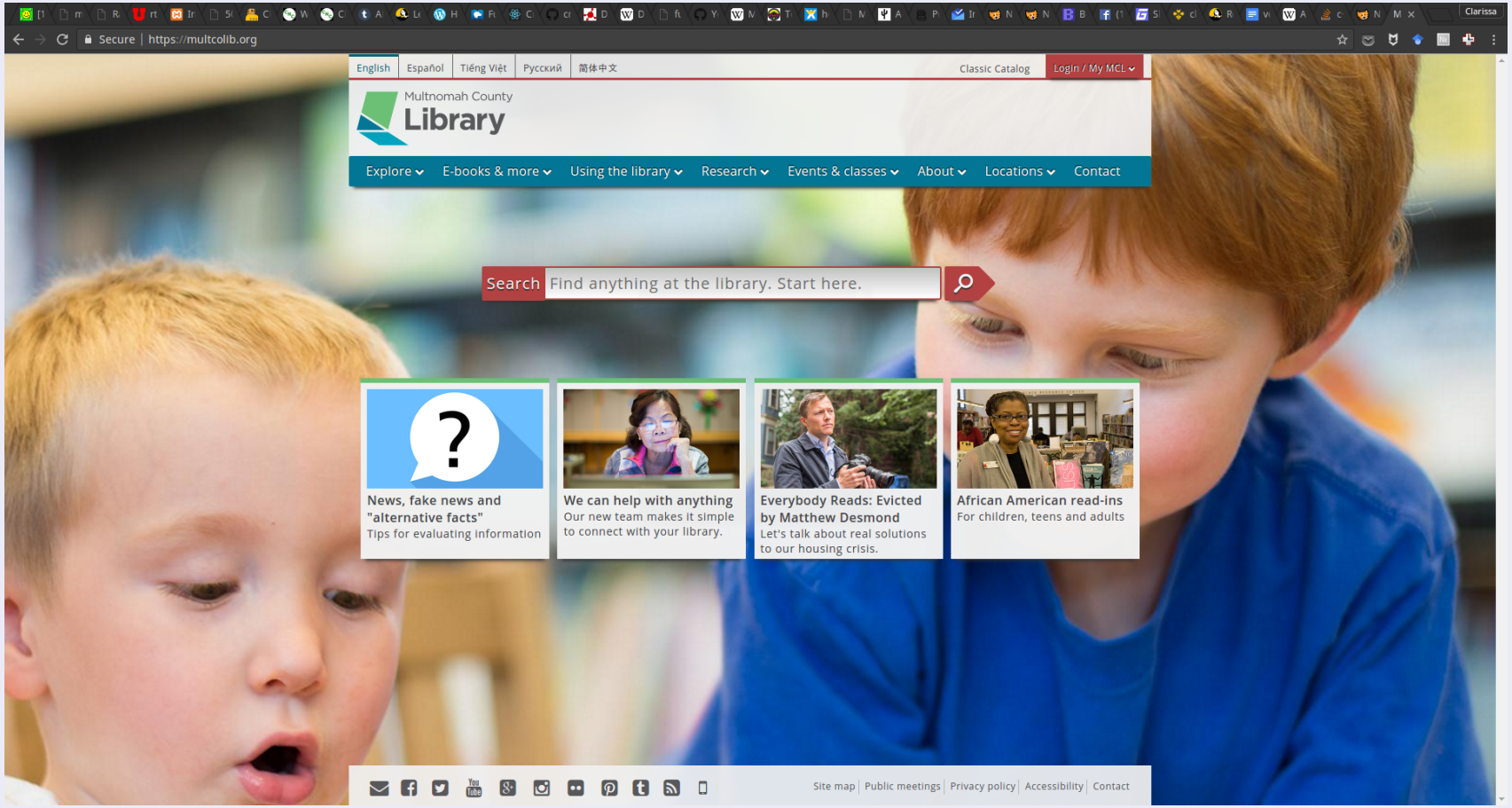
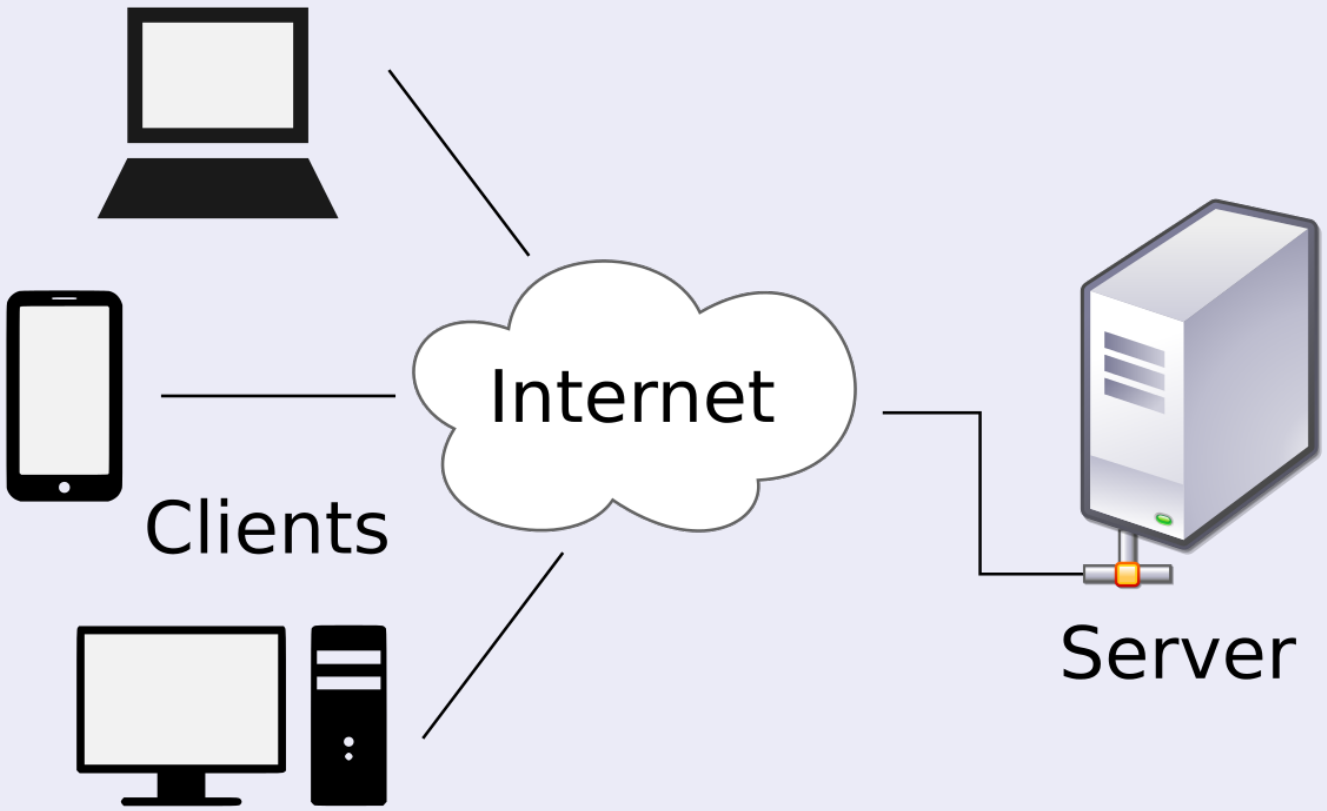
# What's a website?



# Technology behind a website

## Client and server



# The three pieces of a web page

- HTML
- CSS
- JavaScript

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# HTML

**What does HTML do?**

HTML describes the content of the page, but not how it looks

# HTML

**What does HTML do?**

HTML describes the content of the page, but not how it looks

# CSS

## What does CSS do?

CSS describes how a page looks, but not its content

# CSS

## What does CSS do?

CSS describes how a page looks, but not its content

# JavaScript

## What does JavaScript do?

The dynamics and the user interface of the page

# What is HTML?

**HTML stands for...**

HyperText Markup Language

# Without markup

```
A most striking title

Here we have some text, and some more text, and
even more on top of that. We're wondering what's going on
here

'Nother post from a few days ago,
 the most recent times you
 decided to blog.
```

# With markup

```
<h1>A most striking title</h1>

<article>
  <p>Here we have some text, and some more text, and
    even more on top of that. We're wondering what's going on
    here</p>
</article>

<article>
  <p>'Nother post from a few days ago,
    the most recent times you
    decided to blog.</p>
</article>
```

# In the browser

## A most striking title

Here we have some text, and some more text, and even more on top of that. We're wondering what's going on here

'Nother post from a few days ago, the most recent times you decided to blog.

# Our first tags

- <h1> - <h6>
- <ol>, <ul>, <li>
- <p>
- <q>
- <blockquote>

# Exercise 1

## Instructions

1. Go to your neocities.org page
2. Choose to make a new file, call it `ex1.html`
3. Delete the starter text
4. Type the text in the right hand column, and hit `view`

## Follow along

```
<!doctype html>

<html>
  <body>
    <h1>This is a heading</h1>
    <p>Here is a paragraph.
    It has a <q>quote</q> in it.</p>
    <ol>
      <li>here's a list</li>
      <li>it has elements</li>
    </ol>
  </body>
</html>
```

# Why do we need closing tags?

```
<body>
  <ol>
    <li>This is a list
    <li>but
    <li>there's ambiguity here

  <ol>
   <li> where does this part go?
   <li> is it a sublist or a second list?
```

# Why do we need closing tags?

```
<body>
  <ol>
    <li>This is a list</li>
    <li>but</li>
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  </ol>
  </li>
  </ol>
```

# What matters and what doesn't?

## Does

Having matching tags:

```
<h1>This won't work<h1>

<b>Or this</>

<i>Or This</em>

<b>This will!</b>
```

# What matters and what doesn't?

## Doesn't

Whitespace: This

```
<ol>
  <li>This is going to be</li>
  <li>A list</li>
  <li>Of things</li>
</ol>
```

is the same as this

```
<ol><li>This is going to be</li>
    <li>A list</li><li>Of things</li></ol>
```

# Links

```
<a href="http://multcolib.org">
  This is our link</a>
```

This is our link

# Images

```
<img src="Chicken.jpg">
```

# Exercise 2

Try making something original!

- Make a new file called "ex2.html"
- Put in an `<h1>`, two `<p>`, and an `<a>` or an `<img>`
- Save the file and view it. Does it look how you expected?

# Making sites less plain

So far, all of our sites have been very dull: there has been no styling

# What is CSS?

## Cascading Style Sheets

Cascading Style Sheets are how we change how things *look* or are *laid out* on the site.

# Changing color

## Text color

```
<head>
  <style>
    p {
      color: blue;
    }
  </style>
</head>
<body>
  <p>This text is here</p>
  <ol>
    <li>puppy</li>
    <li>kitten</li>
  </ol>
</body>
```

## Background color

```
<head>
  <style>
    ol {
    background-color: purple;
    }
  </style>
</head>
<body>
  <p>This text is here</p>
  <ol>
    <li>puppy</li>
    <li>kitten</li>
  </ol>
</body>
```

# Changing color

## Text color

This text is here

1. puppy
2. kitten

## Background color

This text is here

1. puppy
2. kitten

# Exercise

## Instructions

1. Take the file from your previous exercise
2. Add style tags in the head
3. Write code to turn your paragraphs red

# Selecting by ID

# Selecting by ID

**This paper presents a moral argument that cats are good**

To begin with we need to first define what a cat is.

After defining cats, we need a phenomenologic account of being a cat.

# Selecting by class

```
.important {
    font-weight: 900;
}
```

**1. Things**
**2. That**
**3. Are bold**

1. Things
2. That
3. Aren't

# Block and inline elements

Block elements take up space around themselves

- <p>
- <h1>
- <ol> & <ul>
- <li>
- 

Inline elements take up only the space of the text

- 
- <a>
- <b>
- 
- <i>
- 

# Changing height and width

```
.shortGraphs {
    width: 20em;
    height: 10em;
    background-color: purple;
}
```

# Changing height and width

And, also, I'd like to say a few things here

# Exercise

## Instructions

1. Open your exercise file in the editor
2. Change the width of your paragraphs
3. Add a background color to your title

# Difference between ID and class

### ID

IDs are used for referencing a unique element

### Class

Classes are used for referencing multiple elements

# Pop quiz

You need to style one element differently: ID, class, or type?

# Pop quiz

You need to style all the elements of a single type: ID, class, or type?

# Pop quiz

You need to style multiple elements, possibly of different types: ID, class, or type?

# div and span

## Tags for styling

 and  don't look like anything but can be used to style other text and elements

# div and span

## Tags for styling

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# div and span

## Tags for styling

 and  don't look like anything but can be used to style other text and elements

# div vs. span

### div styles block elements

```
<div id="makeitbig">
  <p>Here's some text</p>
  <ol>
    <li>list item</li>
    </li>list item</li>
  </ol>
</div>
```

### span styles inline elements

```
<span class="spanner">And
    this text
    <em>should</em>
    be styled too</span>
```

# Styling with span

This is some ***important*** text, like ***super*** important.

# Styling with div

Fourscore and
something years ago

Our four puppers

Sorry, that was silly

# Exercise

## Instructions

1. Open the exercise file you've been working on
2. Group together a chunk of text you'd like to style with a `<span>`
3. Change the color of the text in your style

# Using the Mozilla Developer Network

```
https://developer.mozilla.org/en-US/
```

# That's all

Any questions?