

[bitcampgr]
DREAM CODE CREATE]

Our Sponsors



Why is it called BitCamp?

A bit (short for binary digit) is the smallest unit of data in a computer.

A bit has a single binary value, either 0 or 1.

Made with Code Video:
youtube.com/watch?v=aFF8PYDU0D8

What is software?

Computer Instructions

What kind of stuff uses software?



**What kind of stuff does
a software developer do?**

Software Developer = Master Builder



Master Builders

solve problems
build cool things
use their imagination

All things software developers get to do every day

Being a Software Developer...

is like being paid to be creative, solve problems, and build things.

Software Languages



Software Languages



What is HTML?

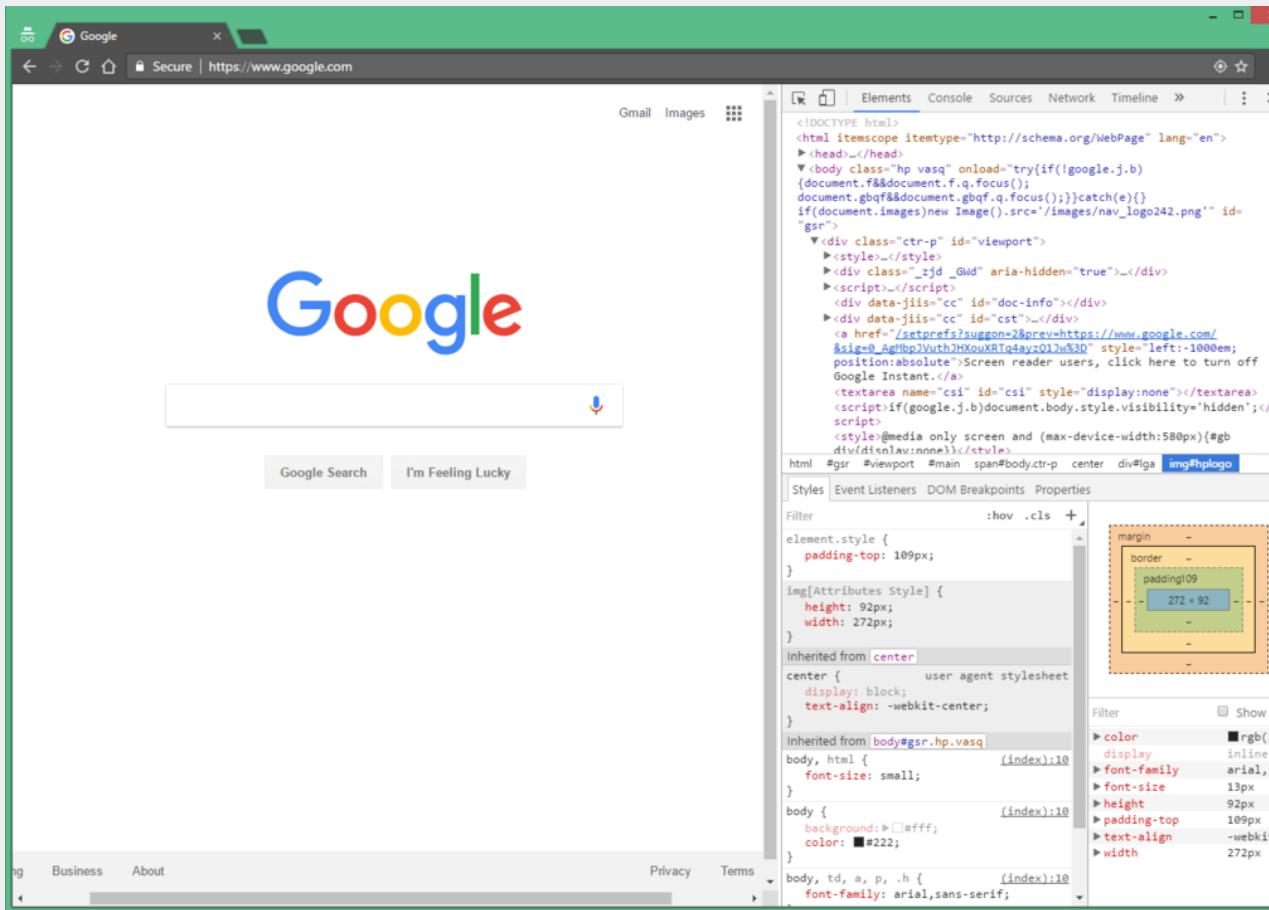
HTML is the code that allows us to build websites
HyperText Markup Language

HTML



Did you know...

...that you can see the code of any website?
Right click => "Inspect"



Get Started: Folder Structure

All the files for your site should be stored within the same folder.

This includes:

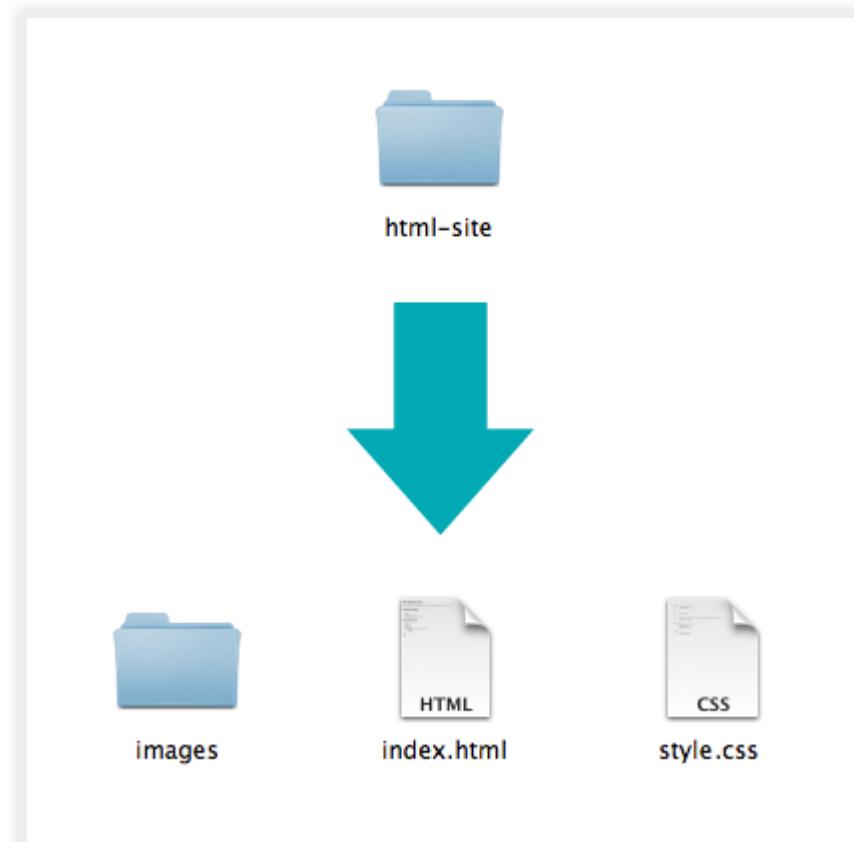
HTML Files

CSS Files

Images

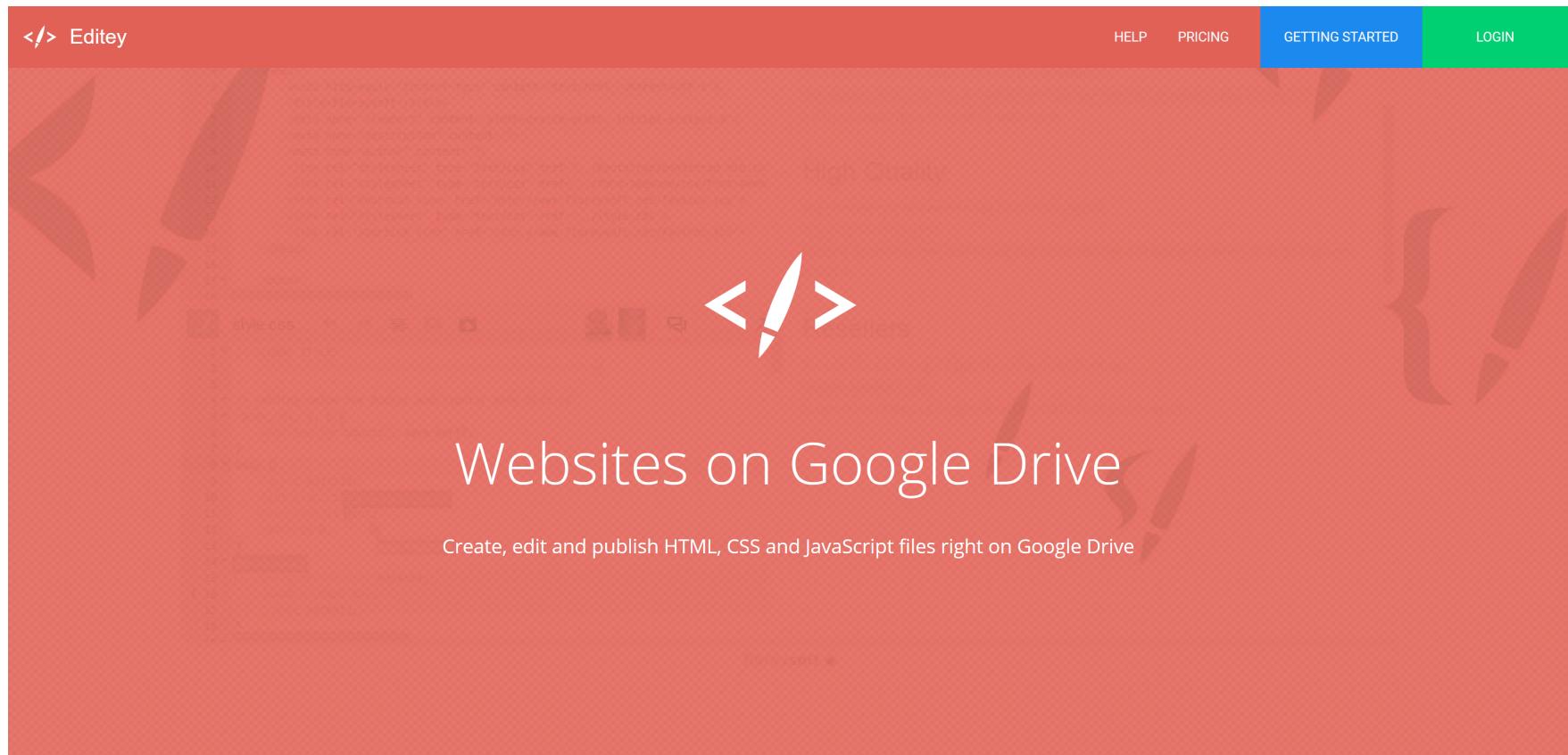
Script files

Anything else that will appear on your site



Get Started: Editey

Navigate to editey.com
Log in using Google Email

A screenshot of the Editey website homepage. The header features a red navigation bar with the Editey logo, a search bar, and links for Help, Pricing, Getting Started (which is highlighted in blue), and Login. The main content area has a red background with a faint grid pattern. It displays a large white '</>' symbol with a pen icon inside the right bracket. Below this, the text 'Websites on Google Drive' is centered, followed by the subtext 'Create, edit and publish HTML, CSS and JavaScript files right on Google Drive'. A small 'GETTING STARTED' button is located in the bottom right corner of the main content area.

</> Editey

HELP PRICING GETTING STARTED LOGIN

High Quality

</>

Websites on Google Drive

Create, edit and publish HTML, CSS and JavaScript files right on Google Drive

GETTING STARTED

Get Started: Editey

Start a new project with a blank template

floreysoft

Editey

Start new project

Blank

MDL Dashboard

MDL Blog

YOUR FAVORITE SOURCE OF Bootstrap

Coffee Pic

Bootstrap Creative

Simple Try before you buy

PURE PRICING TABLE

PERSONAL \$5

SMALL BUSINESS \$10

Pure Email

Compose

Inbox (1)

Important

Send

Drafts

Trash

LABELS

Personal

Work

Travel

More

Hello from Toronto

Re: Pull Requests

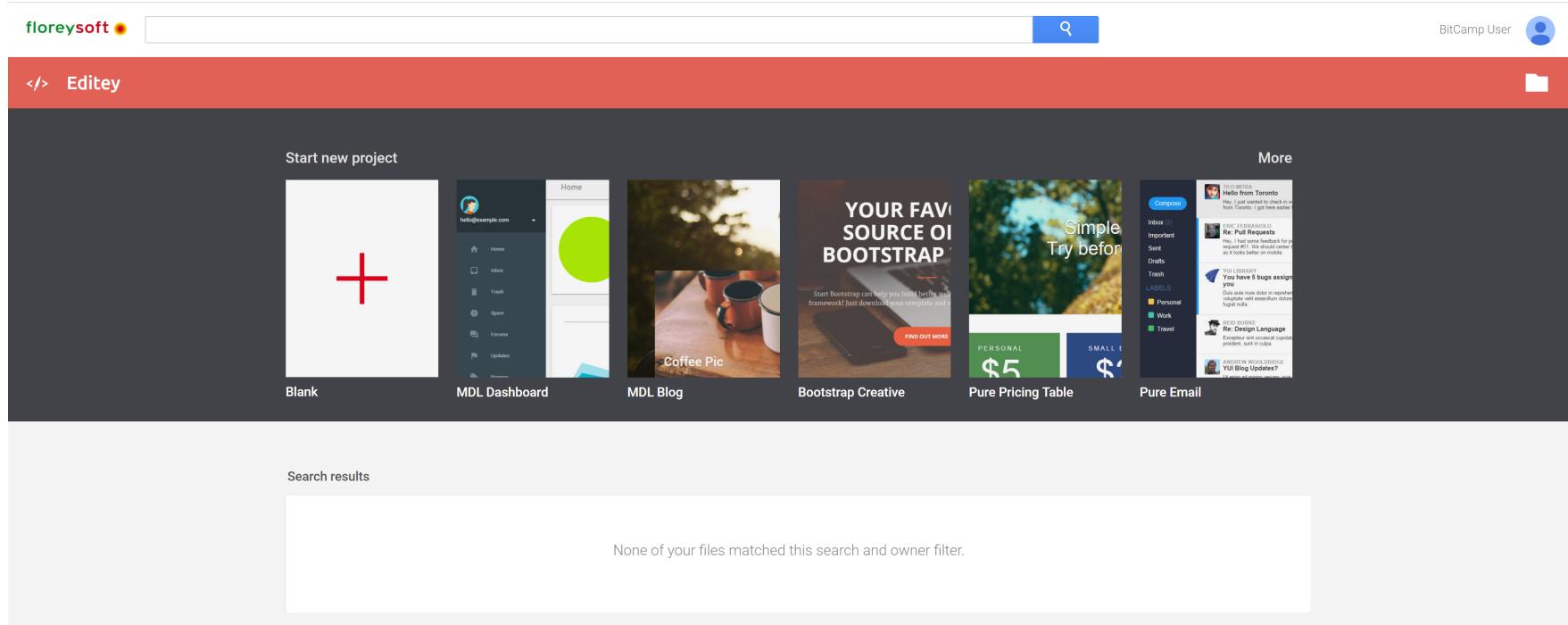
Re: Design Language

YU Blog Updates?

SEARCH

Search results

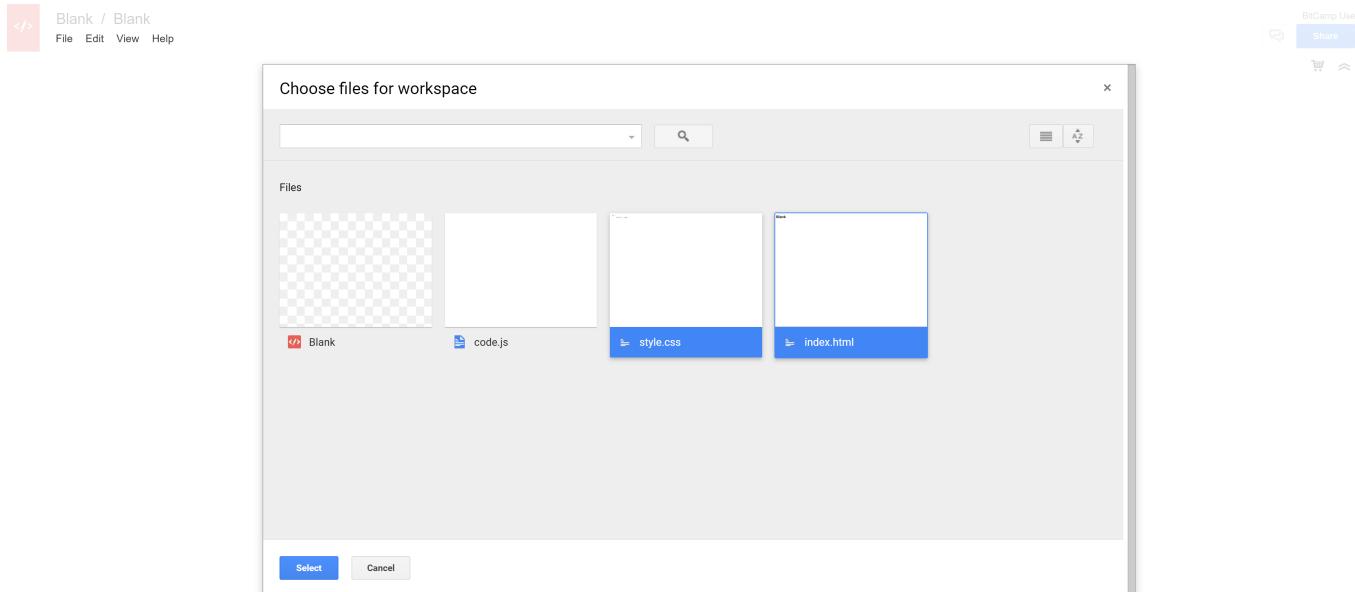
None of your files matched this search and owner filter.



Get Started: Editey

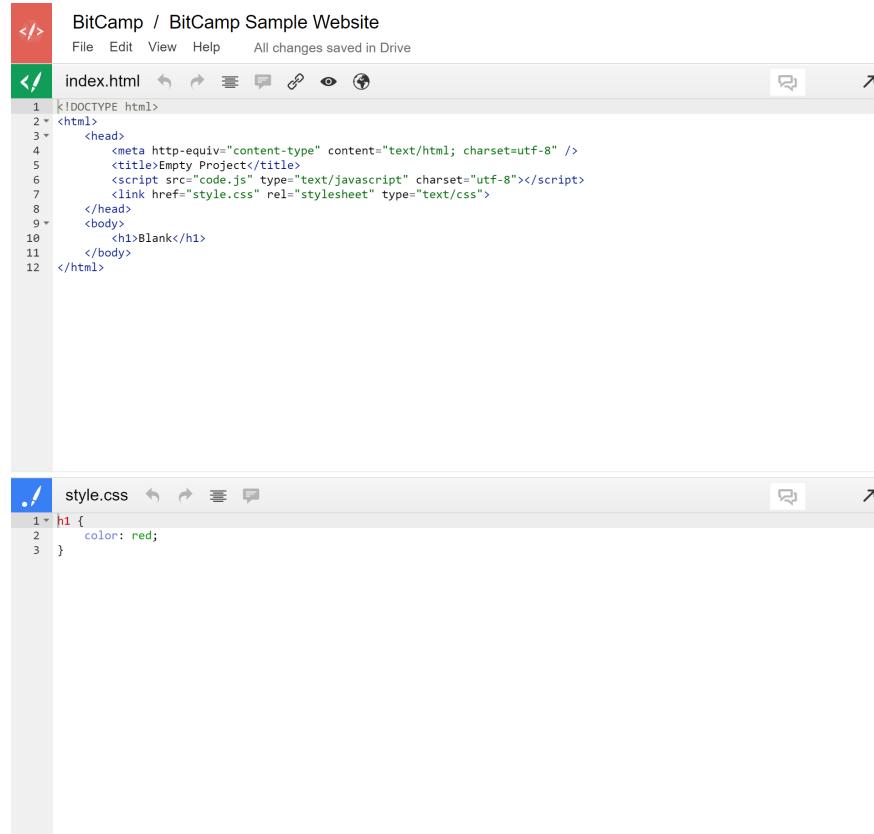
This template creates a:

- Blank workspace file
- HTML file (*select for workspace*)
- CSS file (*select for workspace*)
- Javascript file



Get Started: Editey

Coding Workspace



BitCamp / BitCamp Sample Website

File Edit View Help All changes saved in Drive

index.html

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta http-equiv="content-type" content="text/html; charset=utf-8" />
5     <title>Empty Project</title>
6     <script src="code.js" type="text/javascript" charset="utf-8"></script>
7     <link href="style.css" rel="stylesheet" type="text/css">
8   </head>
9   <body>
10     <h1>Blank</h1>
11   </body>
12 </html>
```

style.css

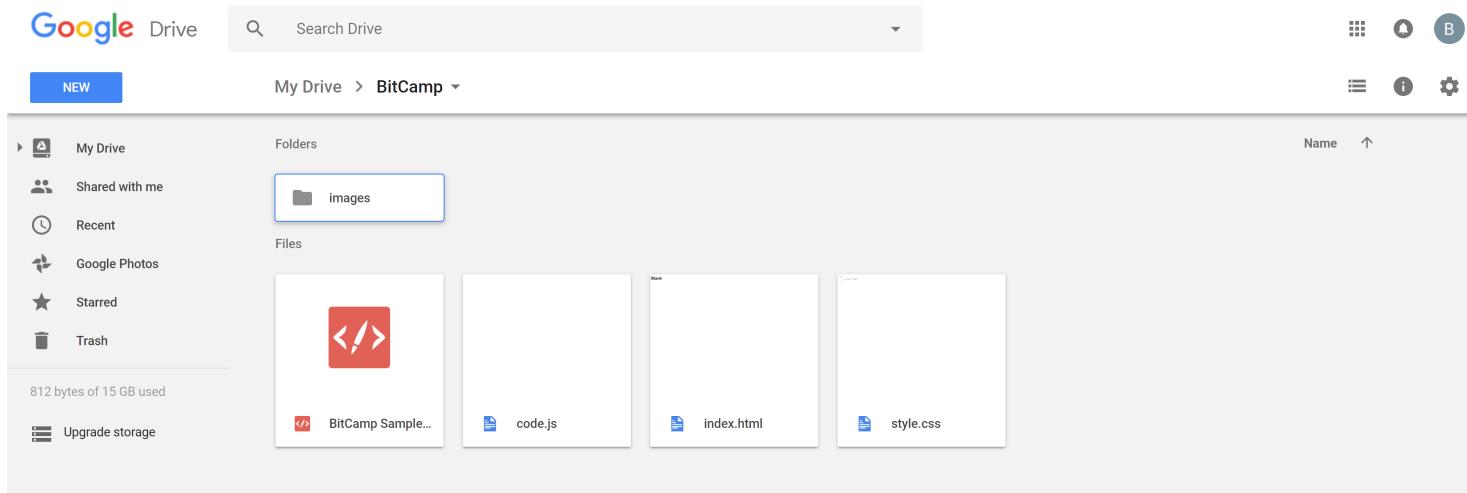
```
1 h1 {
2   color: red;
3 }
```

Live Preview



Get Started: Editey

- Navigate to **Google Drive** and locate project folder
 - Create images folder



The Editey workspace is now set up - let's get coding!

Anatomy of a website

Your Content
+ HTML: Structure
+ CSS: Presentation
= Your Website

A website is a way to present your content to the world, using HTML and CSS to present that content & make it look good.

Anatomy of an HTML element

Element

An individual component of HTML

Tag

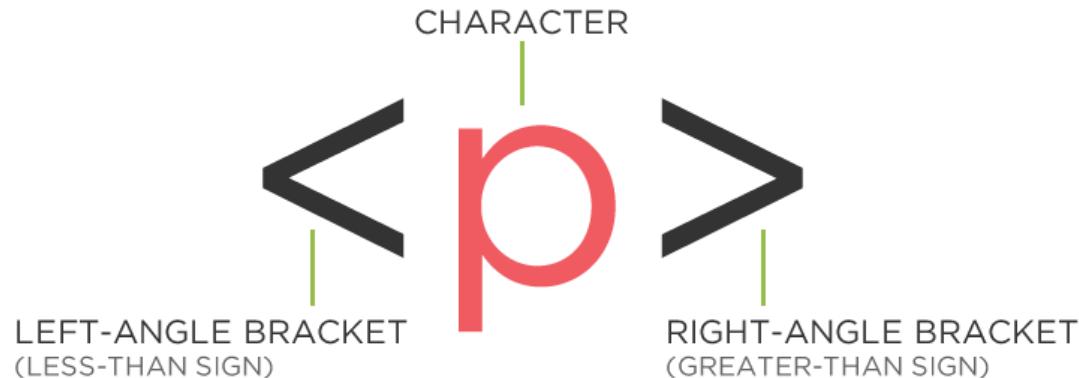
Marks the beginning & end of an element

Tags contain characters that indicate the tag's purpose

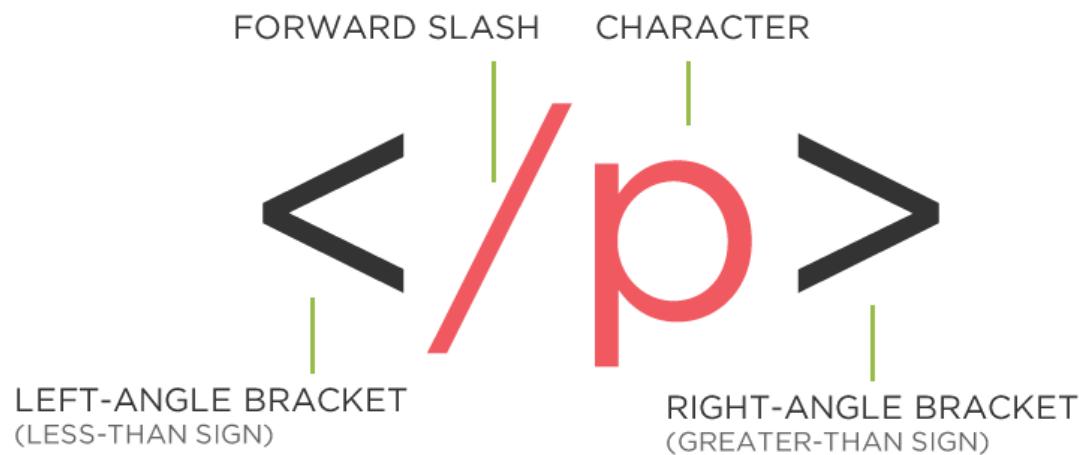
```
<tagname>Stuff in the middle</tagname>
```

```
<p>This is a sample paragraph.</p>
```

OPENING TAG



CLOSING TAG



Doctype

The first thing on an HTML page is the doctype, which tells the browser which version of the markup language the page is using.

```
<!DOCTYPE html>
```

HTML Tag

After <doctype>, the page content must be contained between <html> tags.

```
<!DOCTYPE html>
<html>

</html>
```

Head and Body Tags

Head:

- Contains the page title & meta information about the page.
- Meta information is not visible to the user, but contains helpful information about the site.
 - Tells search engines about your page and who created it
 - Provides a description of your site

Body:

- Contains the actual content of the page.
- Everything contained in the body is visible to the user.

Head and Body Tags

```
<!DOCTYPE html>
<html>
  <head>
    <title>My Awesome Site</title>
  </head>
  <body>
    Best page content ever!
  </body>
</html>
```

Nesting

All elements "nest" inside one another



Whichever element OPENS first CLOSES last

Nesting: Example

Elements are 'nested' inside the <body> tag.

```
<body>
  <p>A paragraph inside the body tag</p>
</body>
```

Element: Paragraph

```
<p>Paragraph 1</p>
<p>Paragraph 2</p>
<p>Paragraph 3</p>
```

Paragraph 1

Paragraph 2

Paragraph 3

* White space is only for humans!

```
<p>Paragraph 1</p> <p>Paragraph 2<
```

```
<p>Paragraph 1</p>
<p>Paragraph 2</p>
<p>Paragraph 3</p>
```

Anatomy of an HTML element

Container Element

An element that can contain other elements or content

Ex. A paragraph (<p>) contains text

Stand Alone Element

An element that cannot contain anything else

```
<br/>  
<img/>
```

Element: Line Break

```
<p>
  Everything is awesome <br>
  Everything is cool when you're part of a team <br/>
  Everything is awesome <br/> When we're living our dream <br/>
</p>
```

Everything is awesome

Everything is cool when you're part of a team

Everything is awesome

When we're living our dream

Element: Heading

```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

* Heading number indicates hierarchy, not size.

Formatted text

```
<p>  
  Here is a paragraph with  
  <em>Emphasized</em> text and  
  <strong>Important</strong> text.  
</p>
```

Here is a paragraph with
Emphasized text and
Important text.

* Note: These tags are meant for meaning, not style.

Element: Link

Links have three components

Tag: <a>

Href attribute: "http://www.girldvelopit.com"

Title attribute: "Girl Develop It"

```
<a href="http://www.girldvelopit.com" title="Girl Develop It">GDI</a>
```

GDI

The <a> tag surrounds text or images to turn them into links

Link Attributes

Links can have attributes that tell the link to do different actions like open in a new tab, or launch your e-mail program.

```
<a href="home.html" target="_blank">Link Text</a>
```

Link opens in a new window/tab with **target="_blank"**

```
<a href="mailto:info@girldevelopit.com">E-mail us!</a>
```

Link opens mail program by inserting **mailto:** directly before the email address.

Element: Unordered and ordered lists

```
<ul>  
  <li>List Item</li>  
  <li>AnotherList Item</li>  
</ul>
```

Unordered list
(bullets)

- List Item
- AnotherList Item

```
<ol>  
  <li>List Item</li>  
  <li>AnotherList Item</li>  
</ol>
```

Ordered list
(sequence)

1. List Item
2. AnotherList Item

Tables

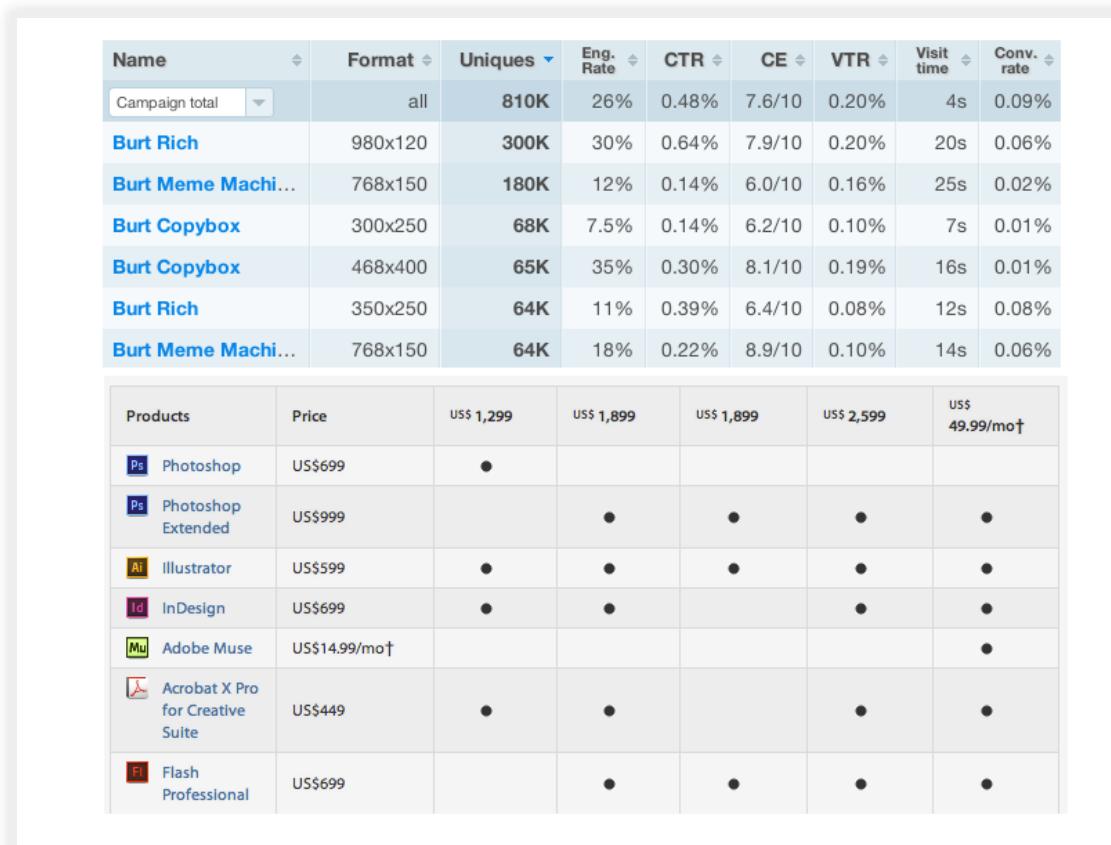
Tables are a way to represent complex information in a grid.
Tables are made up of rows and columns.

```
<table>
  <tr>
    <th>Head</th>
    <th>Head</th>
  </tr>
  <tr>
    <td>Data</td>
    <td>Data</td>
  </tr>
</table>
```

Head	Head
Data	Data

Tables: Examples

Tables can be styled with CSS to add zebra striping or to highlight important rows/columns.



The image shows a screenshot of a web application interface with two tables. The top table is a data grid with a header row and several data rows. The bottom table is a grid of software products with their prices and payment options.

Top Table: Data Grid

Name	Format	Uniques	Eng. Rate	CTR	CE	VTR	Visit time	Conv. rate
Campaign total	all	810K	26%	0.48%	7.6/10	0.20%	4s	0.09%
Burt Rich	980x120	300K	30%	0.64%	7.9/10	0.20%	20s	0.06%
Burt Meme Machi...	768x150	180K	12%	0.14%	6.0/10	0.16%	25s	0.02%
Burt Copybox	300x250	68K	7.5%	0.14%	6.2/10	0.10%	7s	0.01%
Burt Copybox	468x400	65K	35%	0.30%	8.1/10	0.19%	16s	0.01%
Burt Rich	350x250	64K	11%	0.39%	6.4/10	0.08%	12s	0.08%
Burt Meme Machi...	768x150	64K	18%	0.22%	8.9/10	0.10%	14s	0.06%

Bottom Table: Software Products

Products	Price	US\$ 1,299	US\$ 1,899	US\$ 1,899	US\$ 2,599	US\$ 49.99/mo†
Photoshop	US\$699	●				
Photoshop Extended	US\$999		●	●	●	●
Illustrator	US\$599	●	●	●	●	●
InDesign	US\$699	●	●		●	●
Adobe Muse	US\$14.99/mo†					●
Acrobat X Pro for Creative Suite	US\$449	●	●		●	●
Flash Professional	US\$699		●	●	●	●

Relative vs. Absolute paths for links & images

Relative

- Relative paths change depending upon the page the link is on.
 - Links within the same directory need no path information. "filename.jpg"
 - Subdirectories are listed without preceding slashes. "images/filename.jpg"

Absolute

- Absolute paths refer to a specific location of a file, including the domain. "http://www.girldevelopit.com/chapters/detroit"
- Typically used when pointing to a link that is not within your own domain.

Element: Image

Images have three components

- Tag:
- Src attribute: "images/clydesdale.jpg"
- Alt attribute: "Horse"

```

```



YouTube Video Embed



The Things You Love are Made with Code

Up next AUTOPLAY

Embed Video

```
<iframe width="560" height="315" src="https://www.youtube.com/embed/aFF8PYDU0D8" frameborder="0" allow="autoplay; encrypted-media" allowfullscreen></iframe>
```

Start at 0:00

EMBED OPTIONS

Show suggested videos when the video finishes.

Show player controls.

Show video title and player actions.

Enable privacy-enhanced mode. ?

COPY

Updated 2 days ago

Anatomy of a website

Your Content
+ HTML: Structure
+ CSS: Presentation
= Your Website

A website is a way to present your content to the world, using HTML and CSS to present that content & make it look good.

CSS: What is it?

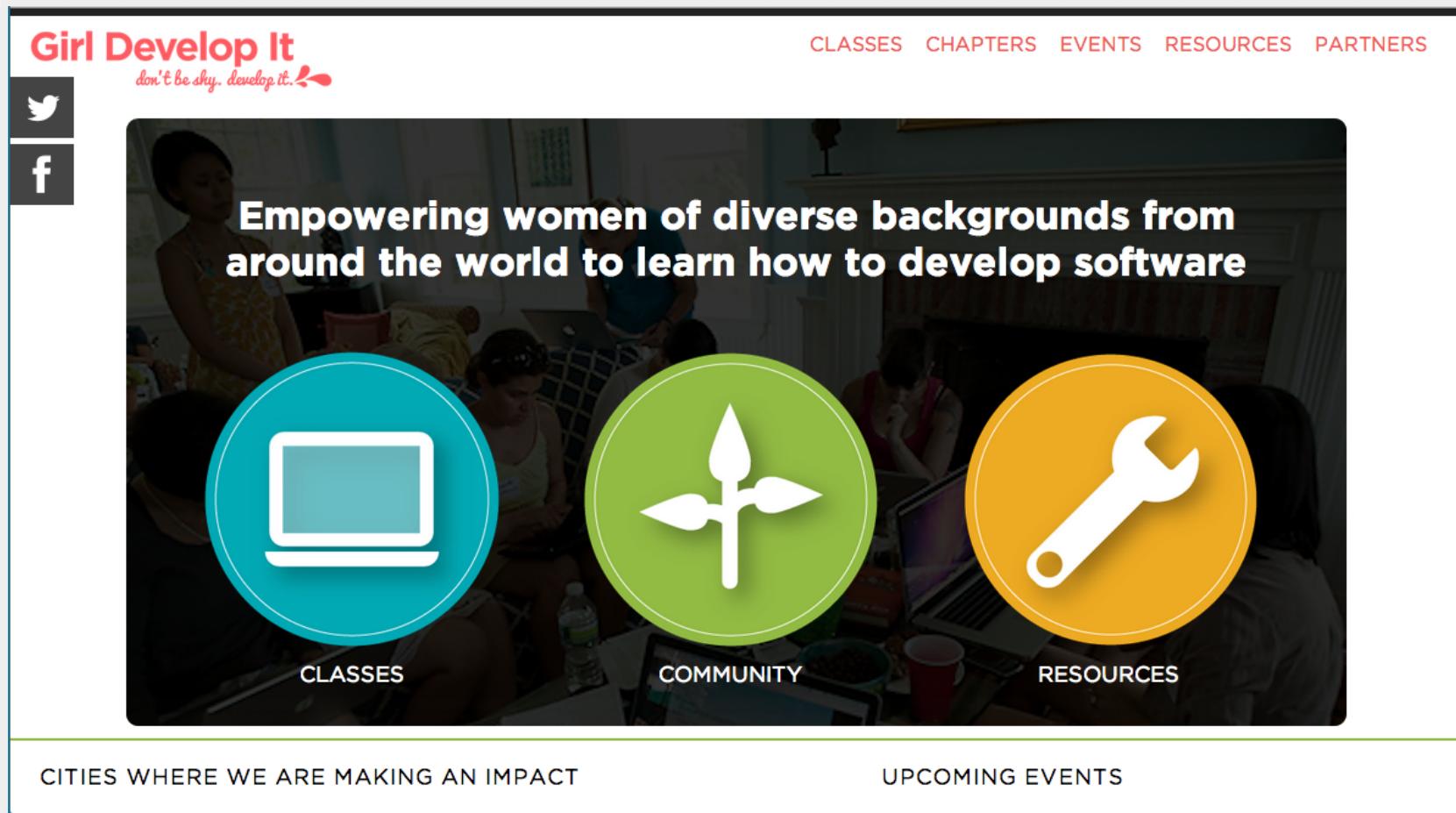
CSS = Cascading Style Sheets

CSS is a "style sheet language" that lets you style the elements on your page.

CSS works in conjunction with HTML, but is not HTML itself.

CSS: What can it do?

All colored text, position, and size is created using CSS



The screenshot shows the homepage of the Girl Develop It website. At the top, there is a navigation bar with the logo 'Girl Develop It' in red and white, and the tagline 'don't be shy. develop it.' Below the logo are social media icons for Twitter and Facebook. The main heading 'Empowering women of diverse backgrounds from around the world to learn how to develop software' is displayed in white text over a background image of people working on laptops. Below this, there are three circular icons: a blue one with a white laptop representing 'CLASSES', a green one with a white stylized plant representing 'COMMUNITY', and an orange one with a white wrench representing 'RESOURCES'. At the bottom, there are links for 'CITIES WHERE WE ARE MAKING AN IMPACT' and 'UPCOMING EVENTS'.

CLASSES CHAPTERS EVENTS RESOURCES PARTNERS

Empowering women of diverse backgrounds from around the world to learn how to develop software

CLASSES COMMUNITY RESOURCES

CITIES WHERE WE ARE MAKING AN IMPACT

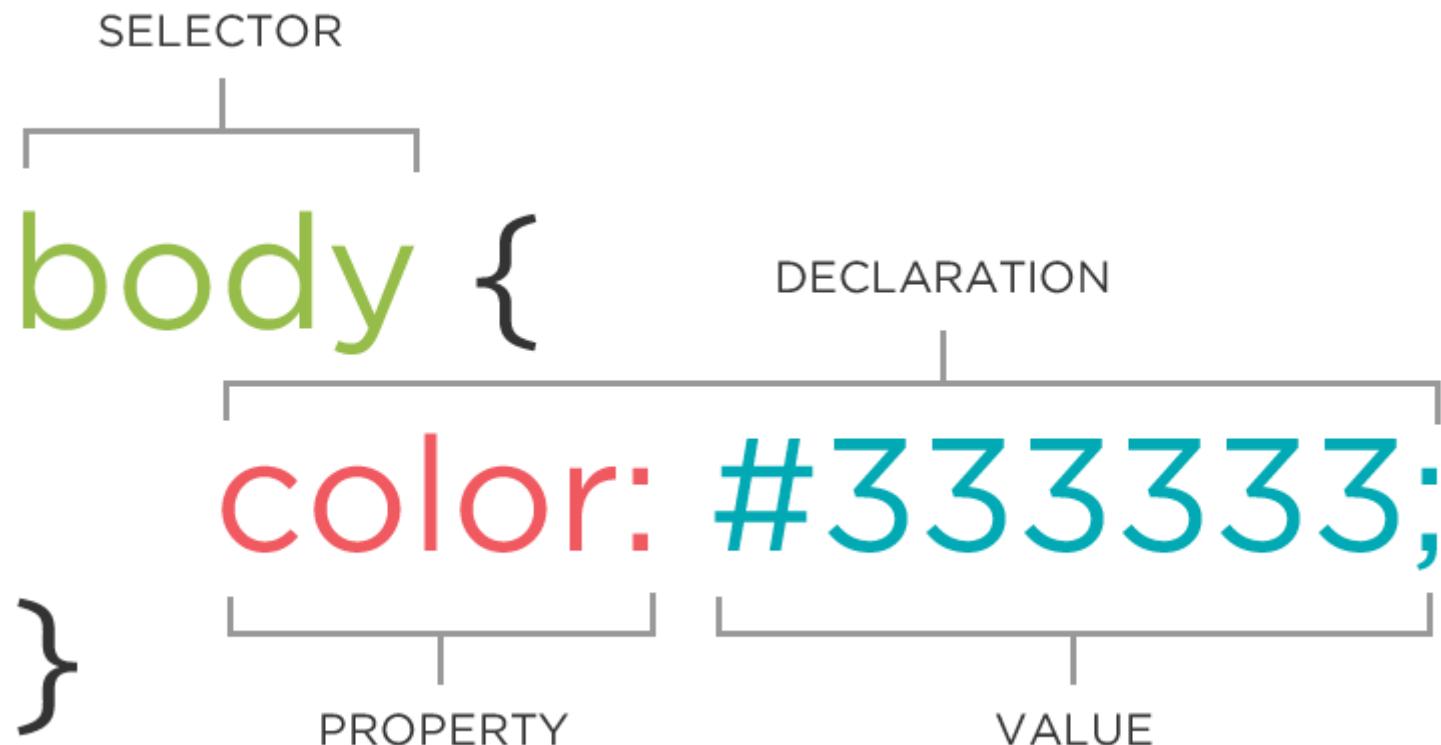
UPCOMING EVENTS

The CSS Rule

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

A block of CSS code is a rule.
The rule starts with a selector.
It has sets of properties and values.
A property-value pair is a declaration.

The CSS Rule



CSS Syntax

Declarations: Property and value of style you plan to use on HTML element.

Declarations end with a semicolon.

Declaration groups are surrounded by curly brackets.

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

Selector: Element

```
p {  
    property: value;  
}
```

Selects all paragraph elements.

```
img {  
    property: value;  
}
```

Selects all image elements.

Selector: ID

```
#footer {  
    property: value;  
}
```

Selects all elements with an id of "footer".

```
<p id="footer">Copyright 2018</p>
```

Selector: Class

```
.warning {  
  color: red;  
}
```

Selects all elements with a class of "warning".

```
<p class="warning">Run away!</p>
```

IDs vs. Classes

ID -- Should only apply to one element on a webpage.

The "#" is how you tell CSS "this is an id."
ex. A webpage only has one footer.

Class -- Lots of elements can have the same class.

The "." is how you tell CSS "this is a class name."
ex. There can be many warnings on one webpage.

Selector: Position

```
p em {  
  color: yellow;  
}
```

Selects all em elements that are within a paragraph

```
<p>This is <em>important.</em></p>
```

Cascading

Styles "cascade" down until changed

```
p {  
  color: blue;  
  font-family: 'Helvetica';  
}  
.red {  
  color: red;  
}  
#special {  
  font-family: Arial;  
}
```

```
<p>Paragraph</p>  
<p class="green">Paragraph</p>  
<p class="red">Paragraph</p>  
<p class="red" id="special">Paragraph</p>
```

Paragraph

Paragraph

Paragraph

Paragraph

Connecting CSS to HTML

```
<head>
  <link rel="stylesheet" type="text/css" href="style.css"></link>
</head>
```

Shared resource for several pages.

Property: Color

The color property changes the color of the text.

```
p {  
  color: red;  
}
```

There are several different ways to provide a color value:

Hexadecimal value ex. #ff0000

RGB value ex. rgb(255, 0, 0)

Color name ex. red

The 17 standard colors are: yellow, aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, white, and teal.

Property: Background-color

The background-color property changes the color of the background.

```
p {  
  background-color: aqua;  
}
```

Property: Font-family

The font-family property defines which font is used.

```
p {  
  font-family: "Times New Roman";  
}
```

Specific font name ex. "Times New Roman"

Generic name ex. serif

Comma-separated list ex. "Arial", sans-serif;

Find a list at: w3.org/Style/Examples/007/fonts.en.html

Property: Font-size

The font-size property specifies the size of the font.

```
p {  
  font-size: 12px;  
}
```

Pixels ex. 12px

Percentage ex. 120%

CSS Properties

Many CSS properties have self-explanatory names:

color

background-color

font-size

width

height

[Comprehensive list of all CSS properties:](#)

developer.mozilla.org/en-US/docs/CSS/CSS_Reference

...or just Google it!

Top Navigation

Home News Contact About

w3schools.com/howto/howto_js_topnav.asp