



INTRO TO WEB TECHNOLOGIES



ALL YOU NEED TO KNOW ABOUT THE WEB.

Websites exist because someone tells a computer what to do. Computers talk to themselves like this: 01010011010101... which is a little hard to understand.

Fortunately, humans made up computer languages to help us talk to computers and get 'em to behave.

Computer languages (aka code) are readable by people *and* computers.

Code is nothing to be afraid of, mostly it looks like a weird form of English with lots of abbreviations and some strange punctuation.

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HTML

HTML (Hyper Text Markup Language) is a markup language that describes what things are to a computer.

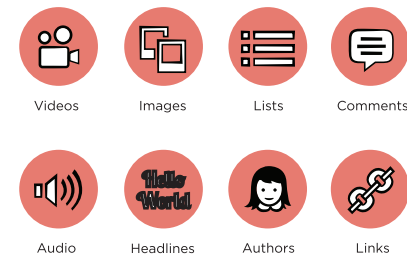
You know when you visit a website and you see a **headline** and a bunch of **paragraphs**? A computer can tell the difference between a paragraph and a headline because each has it's own **HTML tag**. HTML tags look like this:

1	
2	<code><h1>This is a headline</h1></code>
3	<code><p>This is a paragraph</p></code>
4	

You write HTML in a plain text editor and save it with .html at the end. HTML is the only thing that you *have to have* in order to make a website.

EVERYTHING YOU NEED AND MORE!

Websites can have many types of content and media:



In order to place any one type of media in your website, you have to use its particular HTML tag. For example, images get `` tags, videos get `<video>` tags, and so on.

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CSS

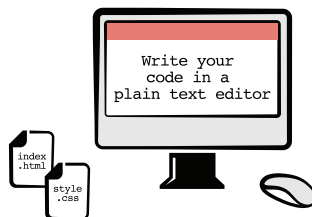
CSS (Cascading Style Sheets) is a presentation language that tells a browser what the HTML should look like.

Did you want your h1 headline to be pink and bold? Just say:

1	
2	<code>h1 {</code>
3	<code> color: pink;</code>
4	<code> font-weight: bold;</code>
5	<code>}</code>
6	

You also write CSS in a plain text editor and save it with a .CSS at the end. CSS allows you to do fancy things like use beautiful fonts, add drop shadows, and even perform some simple animations!

CODE, IT'S JUST WORDS ON A PAGE



Plain Text Editor

noun.

1. A text editor that does not allow for any sort of formatting of the text (no bold, no italics, no fancy fonts.)
2. Common software examples: Textmate, Textedit, Notepad, Notepad++, Dreamweaver, Aptana, Coda.
3. Perfect for writing code!

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JAVASCRIPT

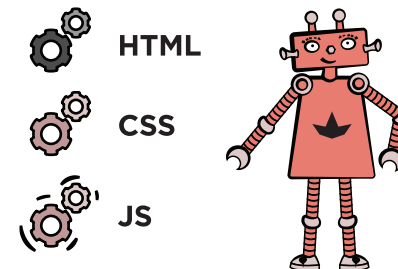
What is **JavaScript**, anyway?

It's a programming language that works in your browser to make web pages more fun and interactive. If you go to a website and click through a slideshow, that's JavaScript. Other examples of JavaScript in action are pop-ups, modals, and alerts.

jQuery is a library of JavaScript, which means it is a bunch of JavaScript shorthand that helps you code the fun parts of web pages much more quickly and with fewer errors.

Using jQuery is a lot like using pancake mix instead of combining the cake flour, baking soda, sugar, salt, and baking powder yourself.

REALLY, WEBSITES ARE LIKE ROBOTS...



If HTML is the robot, CSS is the pink metallic coating, and JavaScript is the metal joints that allow it to move its arms and legs around.

Without JavaScript, all you have is a pretty lookin' website with no place to go!

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PROGRAMMING LANGUAGES

Programming languages are the heavy lifters on the Internet because they tell computers what to do.

Want to post a blog entry on your blog? Or check your bank account balance? You need a programming language to help you do that.

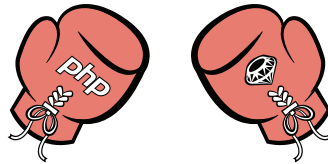
There are a ton of programming languages that people use. Some examples are Java, C, C++, Objective-C, Perl, Python, and about a zillion more. The most common programming languages on the web are PHP, Ruby, Python and ASP.

In web development there is no universal *best* programming language. Just the best language for you and the task at hand.

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TO RUBY OR PHP? THAT IS THE QUESTION.

Two popular web programming languages are PHP and Ruby on Rails. PHP is more common, Ruby on Rails is the cool new kid on the block. Many of the websites you use every day are made with either PHP or Ruby.



PHP

Facebook
Wordpress
Drupal
Wikipedia

Ruby on Rails

Groupon
Living Social
Twitter
Hulu

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DATABASES

Databases are like fancy spreadsheets where data lives. When you save your blog post it goes into a database, same goes for your bank account balance.

There are a ton of different databases, but most are something called **SQL** databases, which stands for "Structured Query Language." That means that even though there are different database types and brands, they generally do things in a similar way.

Here are some commonly used databases and their crazy ol' names:

SQLite

MySQL (*pronounced "My Sequel"*)

PostgreSQL

MS SQL Server

MongoDB

Oracle

Access

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RESOURCES FOR THE DIVAS



LEARN & DOMINATE

Codeschool
codeschool.com

Smashing Magazine
smashingmagazine.com

Girl Develop It
girldevelopit.com

Don't Fear the Internet
dontfeartheinternet.com

Codecademy
codecademy.com

Stack Overflow
stackoverflow.com

Forrst
forrst.com

Lynda
lynda.com

Dev Chix
devchix.com

Women 2.0
women2.org

Gotham Gal - Joanne Wilson
gothamgal.com

Unicorn Free - Amy Hoy
unicornfree.com

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ABOUT DIGITAL DIVAS

Digital Divas is an educational experiment whose goal is to make technology more accessible to everyone (especially the divas).

The makers of Digital Divas want to encourage all the digital divas out there to join the party and make some cool web things.

Digital Divas is a project by Balance Media. Visit us online at builtbybalance.com.

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