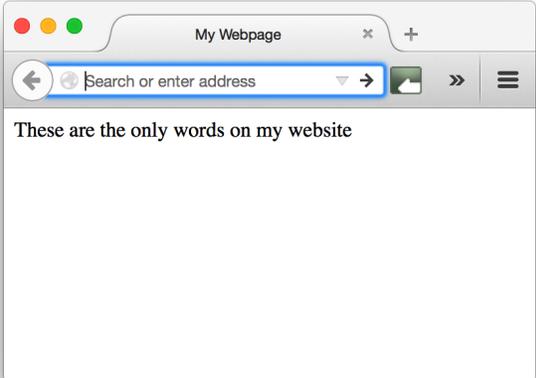# YEAR of {C0de}
WATERLOO REGION

Introduction to HTML
Toolkit for teens
One-hour lesson
Last update: May 11, 2015

Make your First Website in 15 Minutes

Today's best websites are beautiful, very easy to use, and allow us to learn and communicate with each other like never before. At the base of it, however, there's a language that anybody can learn: HTML. Let's take a quick crash course in HTML and learn how to create a simple website all in less than 15 minutes. From there, you'll have brand new tools to understand how web pages work, and your blogs and websites will look prettier and work better, all without having to keep relying on your geeky friends for free tech handouts.

What's in a Website?

A basic website is a variety of content that is laid out using **H**yper **T**ext **M**arkup **L**anguage, or **HTML**. You can create HTML files in expensive programs, but anything at all will do - even something as simple as Notepad! By using HTML, you are speaking the common language of the internet, and with only a small amount of learning, you can get started right away. Here's the most basic setup for an HTML website:

```
<html>
    <head>
        <title>My
Webpage</title>
    </head>

    <body>

        <p>These are the
only words on my
website</p>

    </body>  </html>
```

These are the only words on my website

To make this website, I just typed out the code on the left in a text editor like notepad, saved it as an HTML file, and then reopened it in my web browser. HTML doesn't look like a normal language though, does it? There's some key differences that help explain what's going on here. Learn why passwords are important

\<Tags\>

- Tags are a fundamental component of HTML - they describe unique elements or categories of function within HTML. The most basic tag, `<html>`, is a way of saying "everything that follows is an html file", up until `</html>`, where the forward slash is always a way of saying "up until this point".

- There are **two** essential kinds of tags: those that describe elements contained within them, like the `<html>` tag, and those that are in themselves an entity, like inserting an image with the `<img>` tag, which means you don't ever have to use `</img>` after you insert an image.
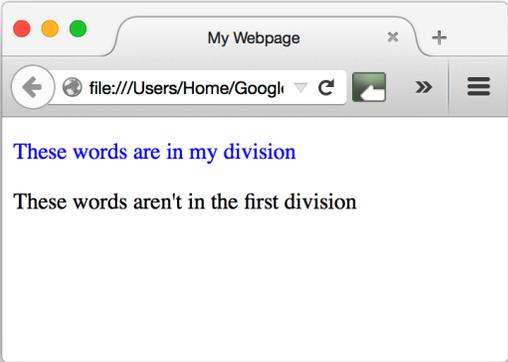
Title, Head and Body

- These are some of the main components of a basic webpage. Think of the `<head>` of the web page as the mind: you don't see it, but it has a lot to say about what the webpage is going to look like. It's within the `<head>` that you can add much of the style of the webpage, and a variety of other information, such as the `<title>` of your web page, that you can see in the title bar of your browser. The `<body>` of the webpage is where you are going to put your content that people will see.

Let's Get Organized

We've got a few more fundamentals to get out of the way before we throw together a basic website, and one of them is how to organize your website using the `<div>` element, sometimes referred to as a "block" element. Take a closer look at most of the websites you love, and you will notice that there seems to be defined sections of the website - title areas, main content areas, side bars, and so on. On the most basic level, we divide them up using `<div>`. For simplicity, we're just going to use `<div>` to give some of our website a bit of colour, but once you get a bit further into HTML (and CSS, the best friend of HTML for stylizing your web pages like a pro), you'll see the real power of the tag.

```
<html>
     <head>
     <title>My
Webpage</title>
     </head>

     <body>
      <div
style="color:#0000FF">
     <p>These words are in
my division</p>
      </div>
      <p>These words aren't
in the first division</p>
     </body>

</html>
```

My Webpage

file:///Users/Home/Google

These words are in my division

These words aren't in the first division

In the above web page, the text in my division was blue, because in my first `<div>` tag, I added an *attribute*. Attributes are just a way of providing more information about the element we created, and there are many different kinds. It may not seem like the `<div>` tag got us very far, and that's true, because we could have just put the *color* attribute within the `<p>` tag. The `<div>` tag, however, is going to give you much, much more power to style your website in the future, so it's a good habit to get into when you want many different kinds of elements to be styled the same.
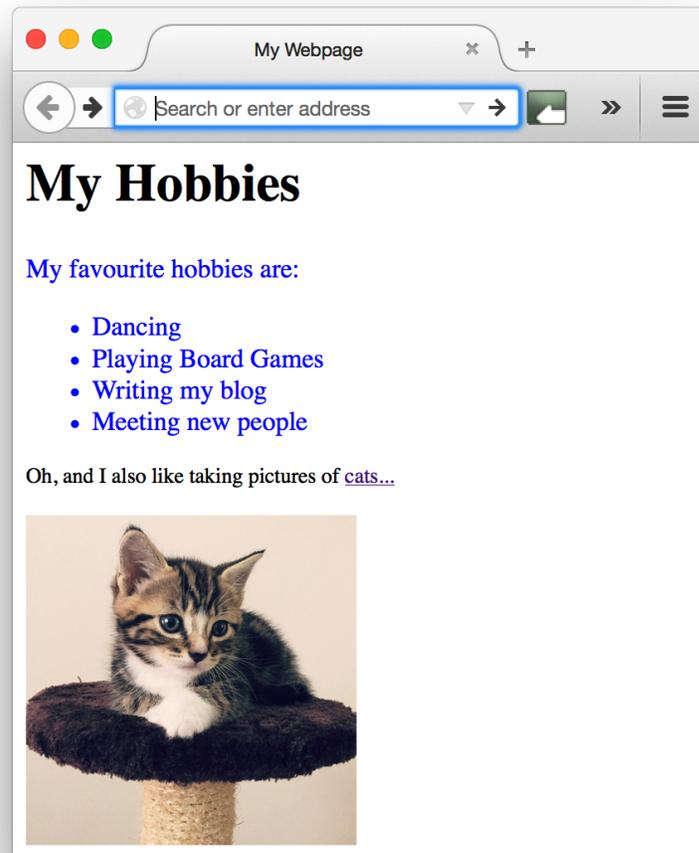

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Useful HTML Tags

One last thing before we put it all together is learning some vocabulary in our new language. Get yourself familiar with these basic HTML tags, and then let's get building!

HTML Tag	Description
`<html>`	Indicates an HTML document. All details regarding your webpage will be between these two tags.
`<body>`	Indicates the visible page content. Everything between these two tags is what will appear in the browser.
`<title>`	Provides a title for the page.
`<h1> ... <h6>`	Adds a heading to your page to indicate the importance of a piece of text.
`<p>`	Indicates a paragraph of text.
`<font>`	Indicates font and font formatting.
`<img src="link here">`	Adds an image to your page.
`<a href="link here">`	Adds a hyperlink to your page
`<strong>`	Makes any text between these two tags **bold**.
`<i>`	Makes any text between these two tags *italicized*.
`<ul>`	Defines a bulleted (unordered) list.
`<li>`	Represents each item in a bulleted list.
`<table>`	Defines a table. Each table will contain rows and cells.

Your First Website

Below is a simple website I've quickly created. Try to understand how it was created, then view the source code below, and you can start to make modifications in the code to make it suit your style.

```
<html>
     <head>
     <title>My Webpage</title>
     </head>

     <body>
      <h1>My Hobbies</h1>
      <div style="color:blue">
     <p>My favourite hobbies are:</p>
     <ul>
          <li>Dancing</li>
          <li>Playing Board Games</li>
          <li>Writing my blog</li>
          <li>Meeting new people</li>
     </ul>
      </div>
      <p><font size="2">Oh, and I also like taking pictures of
<a href="https://www.reddit.com/r/cats" >cats...</a></font></p>
     <img src="https://i.imgur.com/WmqYgKm.jpg" alt="Cute Cat"
width=200 height=200>
     </body>

</html>
```

Learn More

Making your own websites is all about creativity - experiment with different HTML tags, try to create new elements, and strive for making those websites that just feel right. There are endless sources of information on the internet to teach you about all of the HTML tags, examples on how to use them, and so on. Soon enough, you will run into what's called CSS, or **C**ascading **S**tyle **S**heets. These will be your best friend to style your website however you desire. You'll probably notice that once you start making a website or two, you will be much more aware of how other websites are designed. You've taken the first step to learn about HTML, and now the tools of website creation are at your fingertips. Go create!

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