THE INTERNET (OMG)

OR: How the internet works, and why we need to know a little of this to make web sites.

WEB SERVERS

YOUR BROWSER

"I WANT TO GO TO CRYINGKITTENS.COM"

When you tell your browser you want to go to a web page…

WEB SERVERS

YOUR BROWSER → cryingkittens.com → **WEB SERVER**

The internet connects your computer to a "web server".
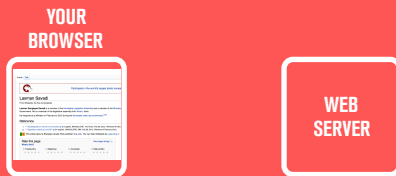
WEB SERVERS

YOUR BROWSER ← index.html — WEB SERVER

The web server is a computer, just the like one's we use every day, but with software that broadcasts HTML files that sit on its hard drives onto the web. After the web server has received a request for a web page, it sends that file back to the computer/browser that requested it.

Fun note: index.html is the name you should always use for your home pages. It's the page that the server will send when no specific file is requested. For instance, when you go to http://google.com/, what you're actually seeing is http://google.com/index.html.

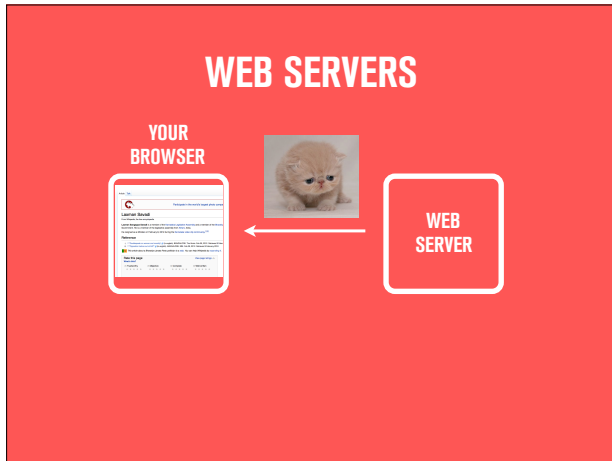**WEB SERVERS**

YOUR BROWSER   WEB SERVER

Once your browser receives the HTML (a specially formatted text file), it converts it into a visual representation like you see here.
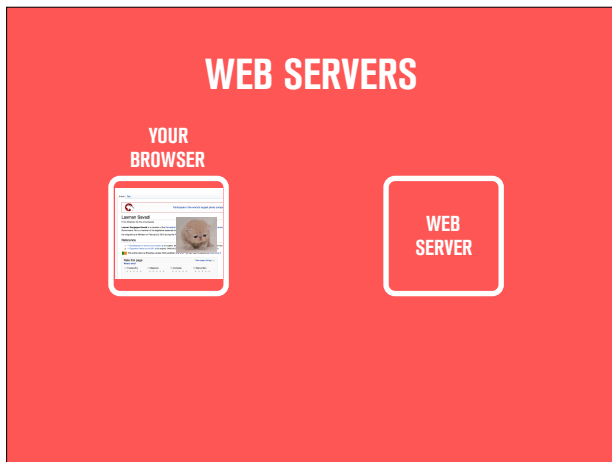

WEB SERVERS

YOUR BROWSER — IMAGES? → WEB SERVER
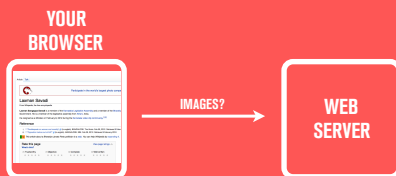
Similar to InDesign, media (images, video) in web pages is stored externally. After your browser has loaded the HTML from the server, if it finds any links to images in the code, it sends another request to the server to have the server send those next.

Which it does...

And which the browser then puts into the correct place based on the HTML.

So, you want to make a web page, do you?

WEB SERVERS

FTP

(FILE TRANSFER PROTOCOL)

To put files on a server, we have to use a specific app called an "FTP" app. It gives us access to the file system on a remote computer.

WEB SERVERS

TO USE FTP, YOU NEED THESE THINGS:
1. CONNECTION TYPE
2. SERVER NAME
3. LOGIN INFO

To use FTP, we typically need just the server name and the login info.

WEB SERVERS

AND, A SIMPLE TEXT FILE

And HTML is simply a text file with a bit of extra formatting.

WEB SERVERS

COME, FOLLOW ME

Go get Cyberduck (https://cyberduck.io/), then connect to the server using:

Protocol: SFTP
Server: odin.pdx.edu

HTML
(THE BASICS)

TAGS

HTML is made with tags

<h1>HEADLINE TEXT</h1>

TAG   ELEMENT CONTENT   CLOSING TAG

Tags are little pieces of text that give a meaning to the text it surrounds.

<p>PARAGRAPH TEXT</p>

TAG   ELEMENT CONTENT   CLOSING TAG

Tags typically follow the format of <tagname> to start, and end with a closing tag that has a forward-slash it in, like </tagname>.

LINK TEXT

ATTRIBUTE

Some tags, like links, don't work unless they have additional information to go with it. This information is added using tag "attributes".

Attributes always follow this pattern 'attribute_name="value"'.

```
<a href="page2.html">LINK TEXT</a>
   ATTRIBUTE   ATTRIBUTE
     NAME        VALUE
```

```
<img src="image.jpg">
     ATTRIBUTE  ATTRIBUTE
       NAME       VALUE
```

You can have more than one attribute in a tag. Just separate them with a space.

```
<img src="image.jpg" alt="Image Description">
```

What????

Some tags (especially those where the content is the tag itself, like an image), don't need closing tags.

You can nest tags. For instance, this code will make it so that in the paragraph on the page is an image that will take you to 'page2.html' when it is clicked.

Carriage returns and extra spaces in your HTML will be reduced down to a single space character.

PROTIP!

WHITE SPACE?

HTML DOES NOT CARE ABOUT YOUR WHITE SPACE.

PROTIP!

WHITE SPACE

```
<p>
  <a href="page2.html">
    <img src="image.png" alt="pic">
  </a>
</p>
```

THIS…

Browsers don't care.

WHITE SPACE

```
<p><a href="page2.html"><img src="image.png"></a></p>
```

IS READ EXACTLY THE SAME AS THIS

WHITE SPACE

```
<p>
  <a href="page2.html">
    <img src="image.png" alt="pic">
  </a>
</p>
```

BUT THIS IS
WAAYYY BETTER

But that doesn't mean the white space can't make things much more readable for you and other humans.

\<br\>
(LINE BREAK)

Because we can't just use more carriage returns to add vertical space in our HTML, we can use the \<br\> tag to put in a line break.

DON'T FORGET:
EVERY TAG IN HTML WORKS LIKE THIS.

\<h1\>HEADLINE TEXT\</h1\>

OR

\<img src="image.png"\>

PROTIP!

HOME PAGE

IF YOUR USERS DON'T TYPE IN A FILENAME, ALL WEB SERVERS WILL LOAD UP

'index.html'

http://yoursite.com/

WILL ACTUALLY GET THE FILE:

http://yoursite.com/index.html

COME, LET'S MAKE A WEBSITE

Go get Cyberduck (https://cyberduck.io/), then connect to the server using:

Protocol: SFTP
Server: odin.pdx.edu

COME, LET'S MAKE A WEBSITE

GO GET BRACKETS

Brackets is a text editor for code, and you can get it here: http://brackets.io/

COME, LET'S MAKE A WEBSITE

PICK A PLACE TO PUT YOUR WEB FILES

COME, LET'S MAKE A WEBSITE

`<h1>HEADLINE</h1>`

`<h2>SUB-HEAD</h2>`

`<p>PARAGRAPH</p>`

`<br>`

`<a href="page2.html">LINK TEXT</a>`

`<img src="image.jpg" alt="image description">`