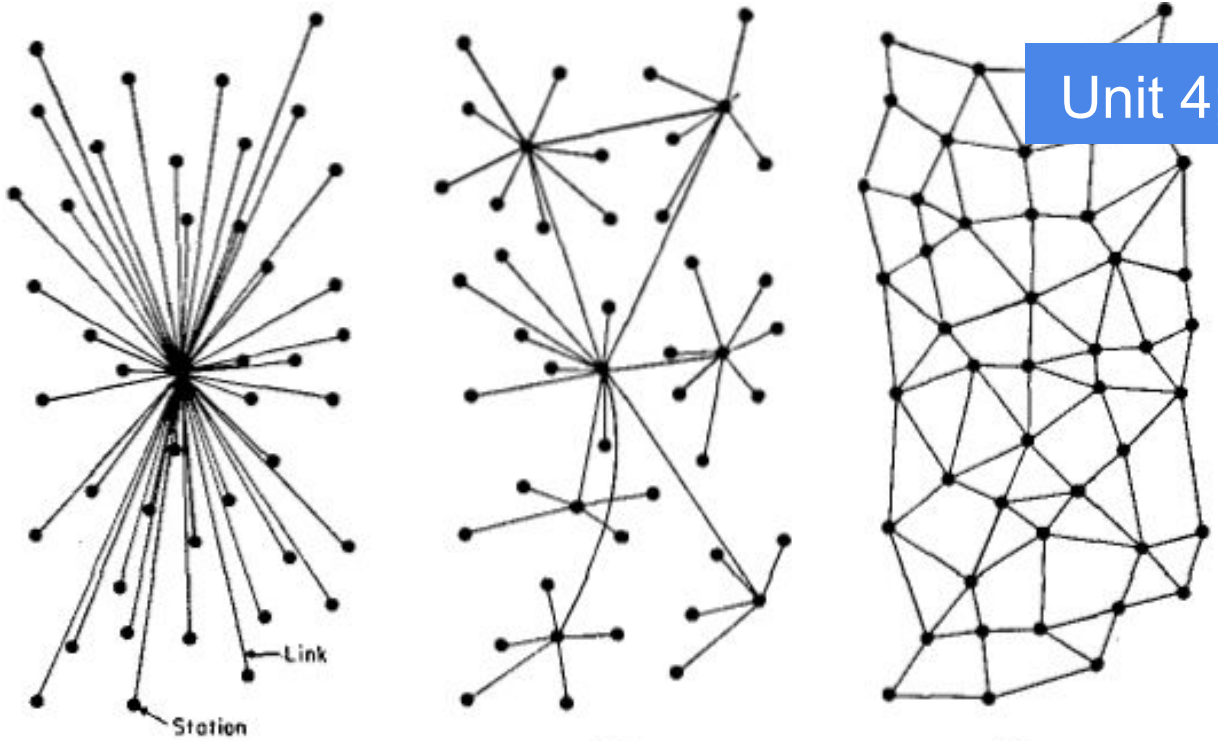
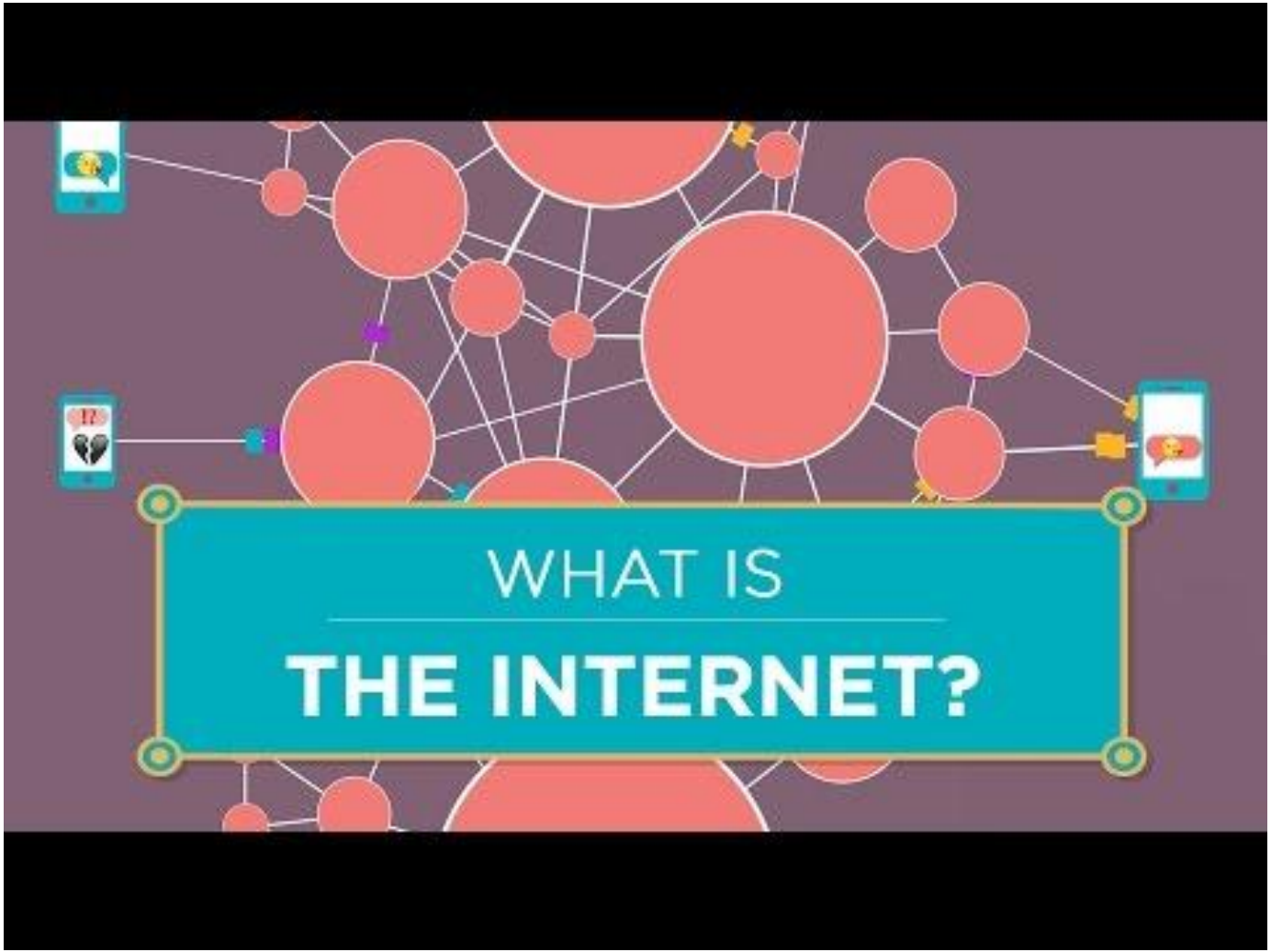
Unit 4; Lesson 1



An Introduction to HTML and Web Architecture

What is the Internet?


WHAT IS
THE INTERNET?

Web Architecture

The way the internet is built

Also sometimes called **network architecture** to refer to how a network is built.

Centralized vs Distributed Network

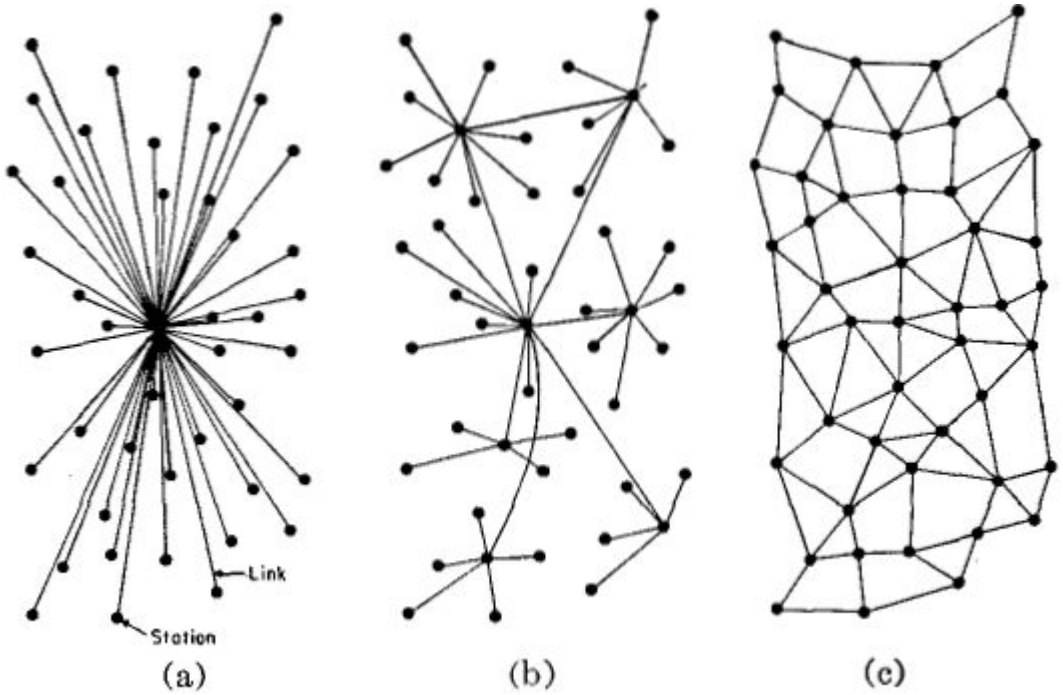


Fig. 1—(a) Centralized. (b) Decentralized. (c) Distributed networks.

A centralized network is ***easier to control*** because all information goes through one place but ***less reliable*** because if the center fails everything collapses.

A distributed network is ***harder to control*** but it is ***more reliable*** because parts of the network can fail and it will still work.

Web Browser

An application on the computer used to view websites.

If you look at any website...

“Underneath the hood” it is using **HTML** to tell your web-browser what to show you.

We can think of HTML as *the language of the web.*

H.T.M.L. Stands for...
Hyper Text Markup Language

TAGS

The Building Blocks of HTML

In HTML, all information is labeled using TAGS

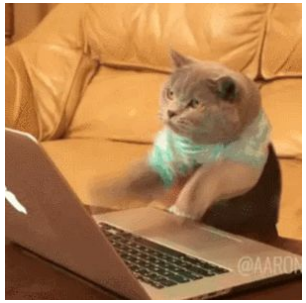
In HTML we use OPENING and CLOSING tags to indicate what content should be.

This is similar to how indentation works in Python.

HTML as a file type

HTML can be recognized as a file type with the extension: “.html”

If we SAVE a file with this extension then we can have our web browser open it!



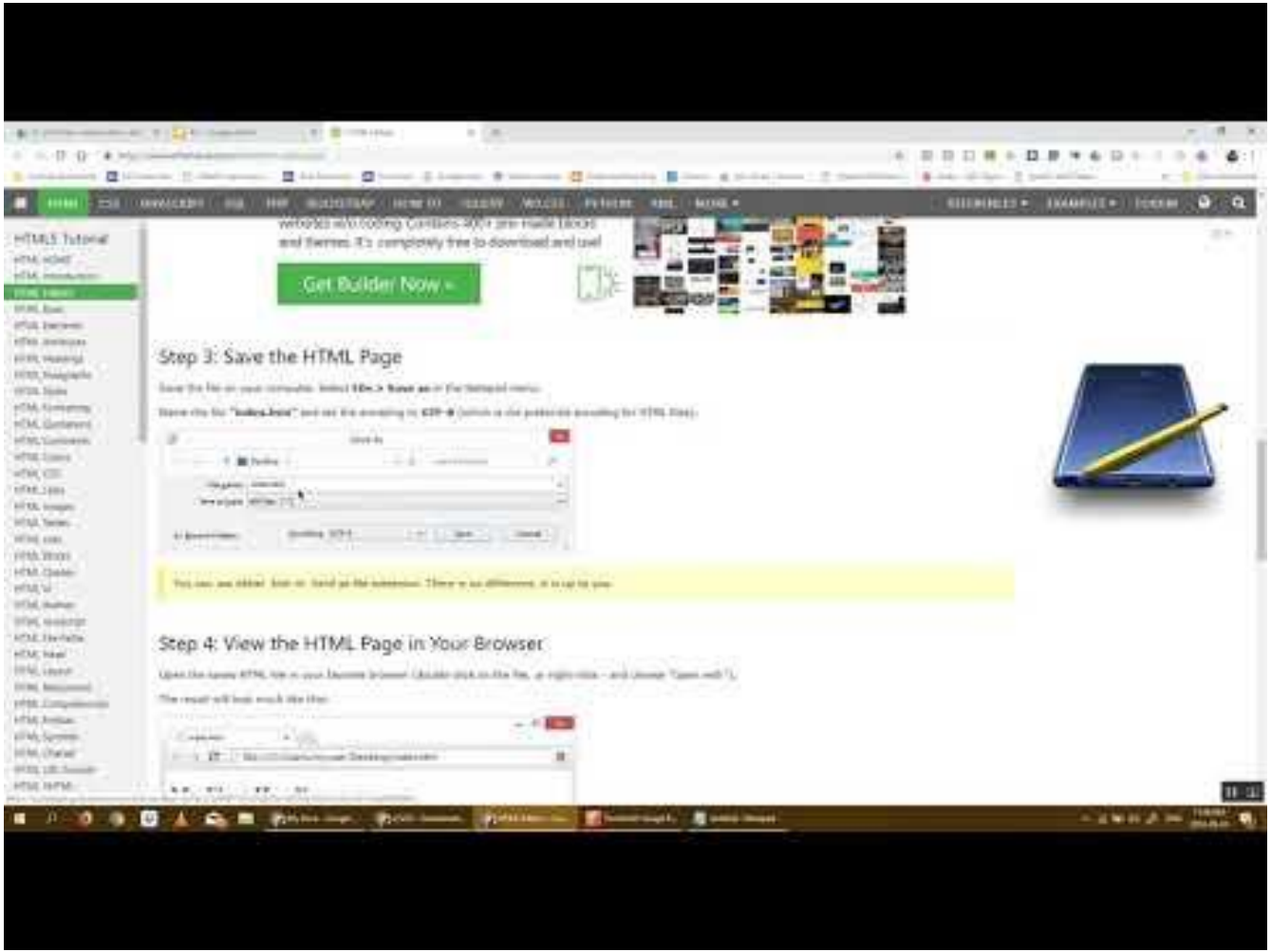
PRACTICE!

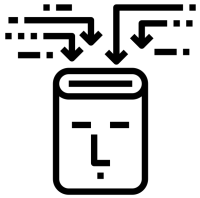
How to make a SUPER SIMPLE .html file using notepad or Notepad++ (PC)

If on a mac, use the brackets or TextWrangler app, and save the file as .html

https://www.w3schools.com/html/html_editors.asp

Video Reference





Activity #1: Your Favorite Show (or game)

Using the techniques in the following slides and shown in class, create a simple website that includes the following:

1. A HEADER <h1> with the name of your favorite TV show or Game
2. A Sub-Heading <h3> with “by Your Name”
3. At least 2 images <img> of the tv show or game
4. Set the width and/or height for at least 1 of your images
5. A summary / description <p> of your TV show or game
6. A heading <h4> “Why I Like It:”
7. An ordered list with at least 3 reasons why you like it.

Hand in the .html file on google classroom. MAKE SURE YOUR NAME IS ON THE FILENAME: **index_yourname.html**

Setting up your document

```
<!DOCTYPE html>

<html>

<body>

… most of your page's content will go here!

</body>

</html>
```

Any basic HTML document should have this structure.

!DOCTYPE simply tells browsers the type of file this is before it tries to parse it.

Notice how every opening tag has a closing tag!

Adding Images

https://www.w3schools.com/html/html_images.asp

Use the following tag:

```
<img src="url" alt="message">
```

URL is the location of the image on the internet.

alt refers to what it will say if the image can't load

You can also use local images but you must include that image when you hand in your work or else the image won't load.

controlling the **SIZE** of images

Use width="..." and height="..." to control the size of the image. Example:

<img src="http://techdesigned.com/design/images/3d/thumbs/Rabbid2_t.png" width="150px" height="200px">

You can use a value in pixels (px) or you can use a percentage (%)

Pixels will set the EXACT size.

Percentage will be *dynamic.* The size will be a percentage of the screen.

Dynamic sizing is a key part of **responsive design**; making websites that work on different types of devices that have different screens.

If you provide only one dimension, the other will scale to match.

Responsive Design Example:

<img src="http://techdesigned.com/design/images/3d/thumbs/Rabbid2_t.png" **width="20%"**>

Making Lists

https://www.w3schools.com/html/html_lists.asp

Ordered Lists

```
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

Unordered Lists

```
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

Vocabulary Review

Go back through the slides and make sure you understand these words:

Vocabulary Words Learned

- ❏ Web / Network Architecture
- ❏ Centralized Network
- ❏ Distributed Network
- ❏ Web Browser
- ❏ HTML
- ❏ Tags
- ❏ Responsive Design

HTML TAGS Learned

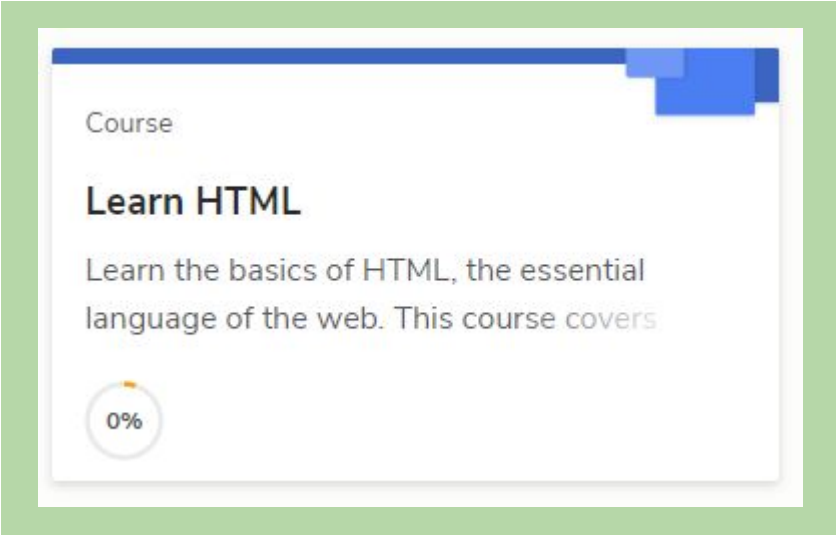
- ❏ HTML <HTML>
- ❏ BODY <body>
- ❏ HEADER <h1>, <h2>, <h3>, <h4>, <h5>
- ❏ PARAGRAPH <p>
- ❏ LIST (Unordered)
- ❏ LIST (Ordered)
- ❏ ITEMS IN LIST

Codecademy Lessons

First, complete the “WELCOME TO CODECADEMY” Course.

Next should be “Learn HTML”. 50% completed by FRIDAY.

https://www.codecademy.com/learn/learn-html



Conclusion of

IT Crowd Scene.