Week 3:
HTML Part 2

ATLS 2200 (Web)
Spring 2022

Today's password:
goat

Welcome back!

Today's password is *goat*

Make sure to check-in on Canvas before 9:35a.

roadmap

Today's password:
goat

TODAY...

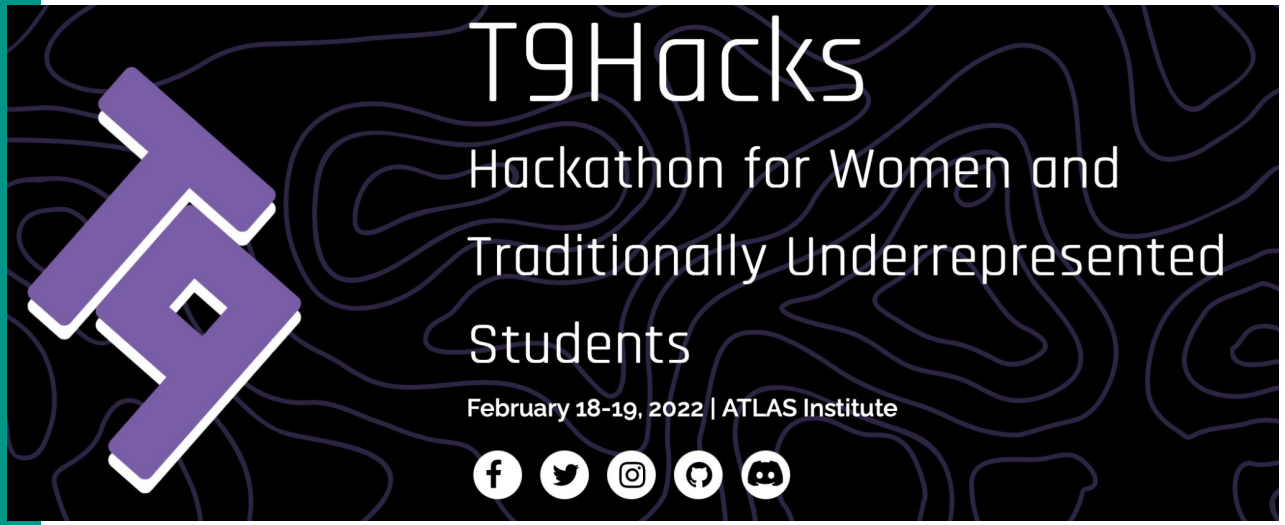
1. Week 02 Debrief
2. The HTML Language, Part 2
    a. Attributes
    b. Empty Elements
    c. Lists
    d. Comments
    e. Tables
    f. Links
3. Validation and Validators
4. Wrap-up + Next Steps

WHILE YOU'RE GETTING SETTLED

Make sure to check in via Canvas ("Week 3 Lecture Check-in").

sign up for t9

SIGN UP FOR t9!



We'll share a link via Slack and via Canvas.

Today's password:
goat

masks

Today's password:
goat

A REMINDER

Where to get your mask

Masks may be picked up between **10 a.m. and 3 p.m.** on weekdays. Head to the reception desk (unless otherwise noted) at these locations.

- University Memorial Center (UMC)
- Center for Community (C4C)
- Student Recreation Center
- Center for Academic Success and Engagement (CASE)
- Sustainability, Energy and Environment Community (SEEC) loading dock—look for directional signs

admin notes

Today's password:
goat

MESSAGING

Many of you have many messaging me via Canvas – thank you! I appreciate that.

I've also gotten a few Slack messages – also totally fine, with the following exception:

If you are asking to meet with me, or letting me know that you have been absent/will be absent, or asking for anything to do with assignments or grades…

You need to message me via Canvas.

Canvas messages are persistent, and will last past the duration of the semester. Slack messages will not. I need to have records of conversations around those topics, so message me via Canvas for those things. Thanks!

admin notes

Today's password:
goat

OFFICE HOURS

Office hours change:

Anthony has office hours in ATLAS 201/235 tomorrow from 1:30-3p (or Zoom, if you message him).

daily note, notes

Today's password:
goat

A FEW QUESTIONS

"I didn't do the daily note last week, is that gonna affect my grade?"

"Files / Directory stuff was confusing to me, hopefully we will get to see more examples in the future."

"Was Pitchfork biased in their reviews?"


Oh, Indeed!

daily note, notes

Today's password:
goat

A FEW QUESTIONS

"I didn't do the daily note last week, is that gonna affect my grade?"

Kind of. You should do this. If I continue to see low response rates, I'll make it mandatory.

"Files / Directory stuff was confusing to me, hopefully we will get to see more examples in the future."

We'll get lots of practice with this, but also you can practice it yourself… it's relevant to more than just web design!

"Was Pitchfork biased in their reviews?"

daily note, notes

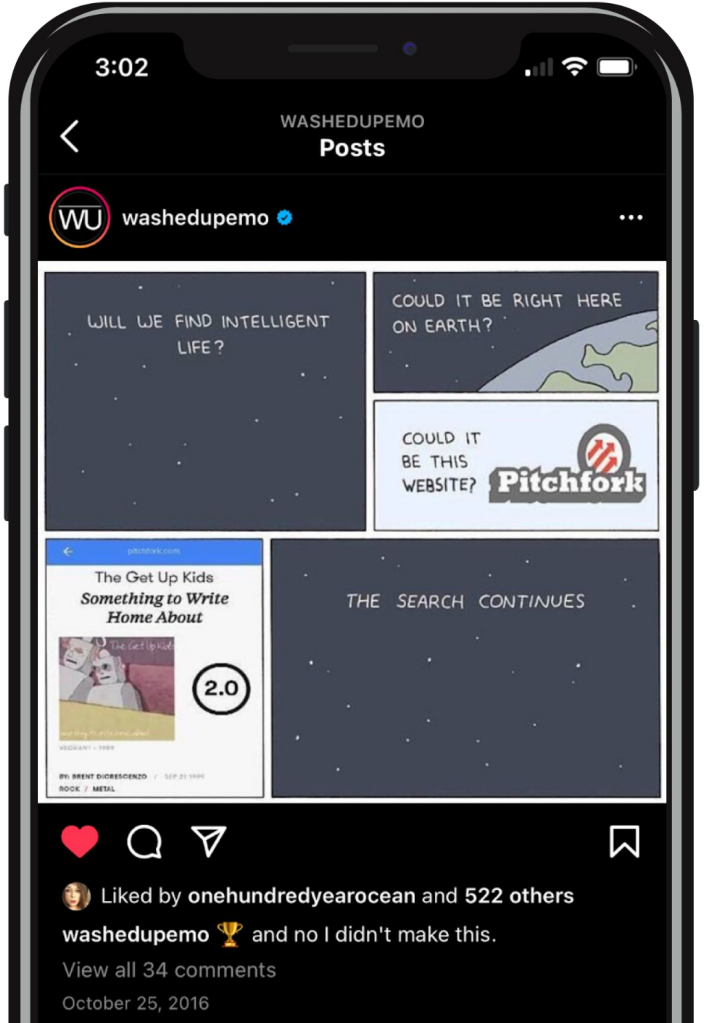
Today's password:
goat

"Was Pitchfork biased in their reviews?"

They definitely are.

But I just scraped the data (and then combined it data from Spotify).

It wasn't an appropriate thing to be spending time on with the whole dissertation.



daily note, notes

Today's password:
goat

SOME COMMENTS

"I felt like I was super behind in everything and didn't want to speak up because it seemed that everybody else had quickly. It can be intimidating over zoom to ask for help. Hopefully in person there will be an easier way to get the help that I need."

Come to office hours! But you can also stay after class for a few minutes.

"Are you going to put like an answer key or shorter notes about how to certain parts of code?"

No. I mean, I could, but these slide decks are already pretty short. Instead, you should have a look at documentation (I'll talk more about this later).

"I felt that I was falling behind taking notes and it was hard to keep up."

Lectures are recorded, so you can always go back to it. You'll also learn more from doing than taking notes (I'll talk more about this later).

notes from recitations

Today's password:
goat

.GIT FOLDERS

Leave this folder alone please. See Canvas/Slack announcement for more information.

GITHUB vs. GITHUB DESKTOP

Some of you have figured out you can code in your browser at GitHub.com, push new commits from there.

This works, technically, but is a bad practice. Please use GitHub Desktop, and code in Atom.

notes from recitations

Today's password:
goat

FORMAT OF CODE

notes from recitations

Today's password:
goat

FORMAT OF CODE

There are Atom extensions that will take care of this for you. Check out **prettier-atom** or **atom-beautify**.

A standard convention is to use one indent for each level of nesting. You've seen me do this already with this code:

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>My test page</title>
  </head>
  <body>
    <p>This is my page</p>
  </body>
</html>
```

the html language, part 2

Let's build something.

html

MORE ELEMENT PROPERTIES

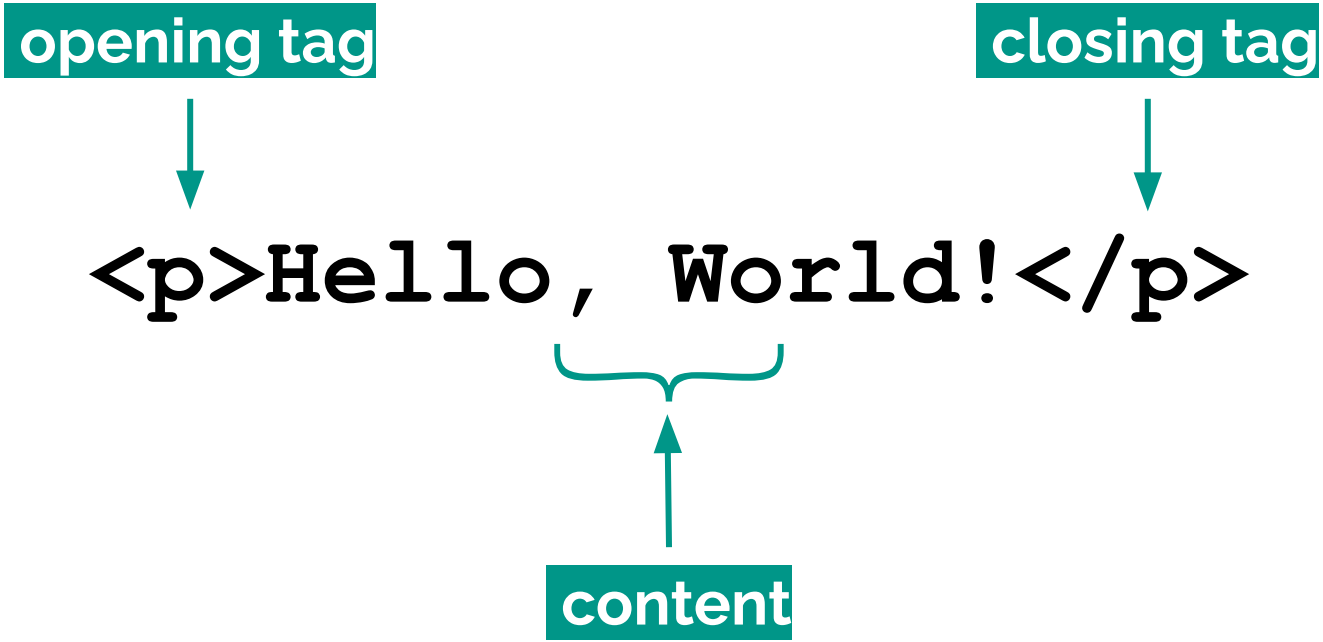
Last week, we learned that an element consists of an opening tag, content, and closing tag.

This week, we'll dive into more complicated elements.

Let's start with how we can change opening tags with attributes.

An **attribute** contains extra information about the element that you don't want to appear as part of the content.

Attributes become particularly important once we start merging HTML and CSS. We can use attributes to point to specific styles in our CSS code.


opening tag
closing tag
Hello, World!
content


opening tag
closing tag
Hello, World!
attribute
content

html

ATTRIBUTES

Attributes have the following format:

- A space between it and the element
- The attribute name followed by an equal sign
- The attribute value wrapped with quotation marks

In the prior example, **class** was the **attribute name**, and **example** was the **attribute value.**

You can have multiple attributes in a single opening tag. For example:

```
<p class="example" id="idexample">Hi!</p>
```

html

EMPTY ELEMENTS

Some elements have no content. Some even have no closing tag </tag>. Such elements are called **empty elements**.

Two such tags are the **image** element and the **break** element.

The break element is created using the **
** tag. It creates a line break in text.

The image tag embeds an image using the **<img>** tag. It generally takes two attributes: the **src** attribute and the **alt** attribute.

- The **src** (source) attribute is required, and contains the path of the image.
- The **alt** (alternate) attribute is optional, but is important for accessibility. It takes a text description of the image.

html

LISTS

We can create lists using HTML. There are two common types:

- **Unordered lists** are for lists where the order does not matter. Unordered lists are made using the **
** tags.
- **Ordered lists** are for lists where the order does matter. Ordered lists are made using the **
** tags.

Each item inside of a list is surrounded by the **list item** tags **
**, like so:

```
<ol>
    <li>Item 1</li>
    <li>Item 2</li>
    <li>Item 3</li>
</ol>
```

NOTE: Notice the nesting!

html

COMMENTS

Much like Python or Java, we can leave comments in HTML source code.

Comments do not render in the browser (like things contained in the <head> element). Unlike the <head> element, comments can be left anywhere in HTML source code.

To insert a comment, surround the text of the comment with an **opening tag (<!--)** and **closing tag (-->).**

Comments can be left as their own lines, can be used to comment out multiple lines of code, be left at the end of a line, or even in the middle of a line.

Comments are useful for debugging.

html

TABLES

HTML supports the creation of tables. They should be used to hold tabular data, not to create the structure of a page.

Tables are complicated, structurally. Here's the basic syntax:

```
<table>
    <tr>
        <td>Cell 1</td>
        <td>Cell 2</td>
    </tr>
    <tr>
        <td>Cell 3</td>
        <td>Cell 4</td>
    </tr>
</table>
```

For more on tables:
https://developer.mozilla.org/en-US/docs/Learn/HTML/Tables/Basics

html

LINKS

For links, we use the **anchor** element (**<a>**).

Anchor elements are useful for creating links to other pages on your site, or to external websites (recall last week's discussion on relative and absolute links).

To create a hyperlink to another page, the basic syntax is:

```
<a href="http://www.link.com">hyperlinked text</a>
```

The **href** attribute stands for **hypertext reference**.

It can take both absolute and relative links, as you saw in Assignment 2.

html

INTERNAL PAGE LINKS

We can create internal links within a page as well. We do this by **assigning names to specific parts of page.**

We do this by adding an **id** attribute to the element we want a link to point to, like so:

```
<h1 id="title">This is a title.</h1>
```

Then, we can link to that particular element using an anchor element, where the href attribute points to the id, prepended with a #:

```
<a href="#title>Back to title</a>
```

validation and validators

Let’s make sure your HTML is correct.

html

VALIDATION

Validation ensures that our HTML is written correctly, and is without **syntax errors**. A **syntax error** is a mistake that causes the computer to not be able to compile or run code (e.g., a missing parenthesis).

HTML is a forgiving language – even if your HTML has a syntax error, it will likely still render. Things just might look *weird*.

This is where validation and validators come in: they can identify syntax errors.

Validators cannot find **logic errors**. Logic errors are issues where the code runs, but does not do what you expect it do (“WTF errors”).

html

VALIDATION

In this class, we'll ask you to validate your HTML (and CSS, later) using the W3C Validator before submitting it.

The W3C Validator is a great tool to validate something… once. Notice that it asks for a URI, a file, or a direct input. That's a bit unwieldy to do more than once.

Luckily, Atom has a package that will do rudimentary validation for us on the fly – the **w3c-validation** package.

This is optional, but strongly recommended to use.

wrapping up

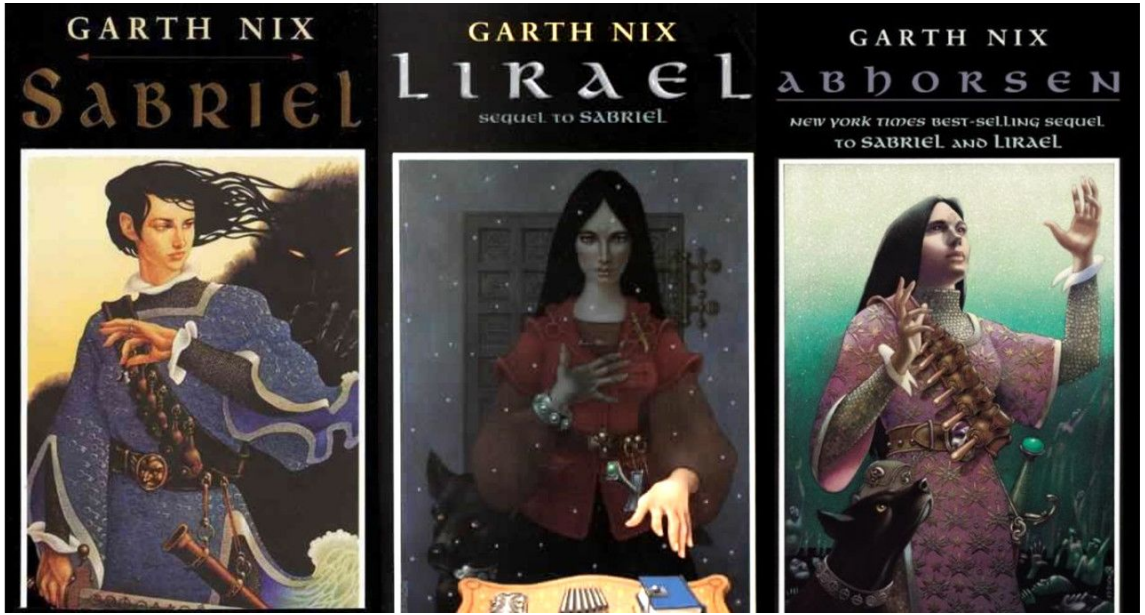
A thought about HTML (and CSS)

a thought about html

A TANGENTIAL ANALOGY

I have a guilty pleasure – I like reading fantasy books.

I've recently been re-reading Garth Nix's "Old Kingdom" series.



a thought about html

A TANGENTIAL ANALOGY

In these books, there is a magic called “Charter Magic”. Charter Magic is made up of symbols, and define and structure the world.

There are infinite Charter Symbols, and even the most experienced Charter Mage can’t know them all.

In the course of reading recently I realized that HTML is kind of like Charter Magic (CSS, too). There are many, many elements and attributes that make up these languages – it’s unlikely anyone knows them all.

Moreover, combining them can create new designs that might be unfamiliar to even the most experience web designer… right Peter?

a thought about html

WHAT'S THIS MEAN?

What this means is that you shouldn't be afraid to look up things!

Like all languages, there is robust documentation available.

Some places to look:

- Mozilla's MDN Webdocs – https://developer.mozilla.org/en-US/docs/Web/HTML
- W3Schools HTML Documentation – https://www.w3schools.com/TAGS/default.ASP

You should also not be afraid to use Google. A good Google search for a tag or problem is likely to turn up a StackOverflow question that will help you.

After all, the Web's been around 30+ years… someone's sure to have had a similar problem to you in that time.

roadmap

WHAT'S NEXT?

In recitation this week – you'll be leveraging classes and more complicated elements to create an encyclopedia page on your website.

Quiz 2 opens at 10:45 AM; due at the start of your recitation. **Assignment 3** opens at 10:45 AM; start in recitation; due Sunday by 11:59 PM.

DAILY NOTE

We'll post the Daily Note in Slack in **#atls-2200-web-spring-2022.**

Make sure to do it now – it has an important question about your midterm in it.