

Week 11:

Javascript Part 1

ATLS 2200 (Web)
Spring 2022



roadmap

TODAY...

1. Announcements
2. Javascript Part 1

WHILE YOU'RE GETTING SETTLED

Make sure to check in via Canvas (“Week 11 Lecture Check-in”).

announcements

OFFICE HOURS

Anthony will have slightly longer office hours on Wednesday – **2:20-3:45PM**

Anthony's Friday office hours will move to **9-10AM via Zoom.**

Dynamic HTML

using javascript to make our pages
dynamic

JavaScript

WHAT IS JAVASCRIPT?

JavaScript (JS) is a scripting or programming language.

JS allows us to **create dynamically updating content, control multimedia, animate images**, among other things.

With JS, we can:

- Store values inside variables
- Operate on pieces of text (aka, **strings**)
- Run code in response to events occurring on the webpage

JavaScript is case-sensitive. Check your capitalization.

JavaScript

APPLICATION PROGRAMMING INTERFACES

Application Programming Interfaces (APIs) are ready-made sets of code “blocks” that implement code that would otherwise be difficult or annoying to write repeatedly.

APIs are built on top of the client-side JS language.

There are two main types of APIs:

- **Browser APIs** are built into your browser. These include the Document Object Model (DOM), which lets us manipulate HTML and CSS, and the Geolocation API, which retrieves geographic information.
- **Third-Party APIs** are generally maintained by a third party, and used to interface with outside services.

JavaScript

ADDING JAVASCRIPT TO A WEBPAGE

Three ways, just like CSS:

1. **Inline** – just like CSS, this is bad practice and should be avoided at all costs.
2. **Internal** – place JS in a `<script>` tag in the head element of the HTML page in question.
3. **External** – similar to linking an external CSS stylesheet, but using `<script>` instead. ← Just like with CSS, this is the **best-practice**.

JS examples

let's switch to Atom.

JavaScript

LOADING JS

When loading our JS via an external file, we have to worry about the script blocking the rest of the page from loading.

We have two commands to help remedy this problem.

- **async** – downloads the linked script, but doesn't block the rest of the page from being loaded.
Once the script is downloaded, the script will run. There's no guarantee that scripts will run in a specific order.
- **defer** – downloads the linked script, but doesn't block the rest of the page from being loaded.
Won't run until the page is finished loading, and will run in order from top to bottom.

roadmap

WHAT'S NEXT?

In recitation this week – practice with JavaScript.

Assignment 11 opens at 10:45 AM. Review before recitation, start in recitation, finish and submit by Sunday 11:59PM.

Quiz 9 opens at 10:45 AM. It is due before the start of your recitation.