

CSC 433/533

Computer Graphics

Javascript Intro

Alon Efrat
Credit: Joshua Levine

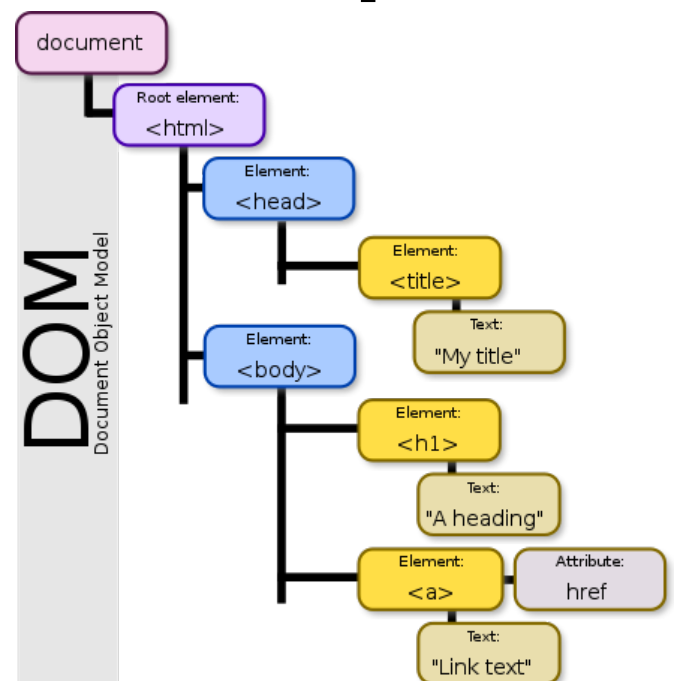
Today's Agenda

- Reminders:
 - Registration Issues? See me after class.
- Goals: Introduce the basics of Javascript

HTML Basics

HTML Main Concepts

- Tags and Elements
- The Document Object Model or DOM
XML or HTML **document** as a tree structure where in each node is an **object** representing a part of the **document**. The **DOM** represents a **document** with a logical tree.
- Important elements we will use in this class:
 - HTML5 Canvas Objects (https://developer.mozilla.org/en-US/docs/Web/API/Canvas_API)
 - Forms (<https://developer.mozilla.org/en-US/docs/Learn/HTML/Forms>)



JavaScript Basics

Javascript Main Concepts

- Variable types and declarations
 - Dynamically-typed language!
 - 3 key types: Primitives, Objects, and Arrays (which are objects)
- Scope, Hoisting, var vs. let
- Closures and Higher-order functions
- Object-oriented programming

Connecting Javascript to HTML

How to Code Javascript

- Developer Tools in browsers
- Coding in an IDE: Visual Studio Code
 - Running a simple http server <— usually won't be needed
- Accessing the DOM