

COMP1531



Web

9.4 - (Bonus) Frontend Basics

Front-end Design

Building front-ends are not covered in COMP1531. CSE offers a few courses relating to them though:

- UX & Design: COMP3511, COMP4511
- Technical: COMP6080

These skills will help prevent you building **bad interfaces**.

Web Applications

- At least 2 major components (client, server)
- Multiple languages involved
 - Javascript, HTML, CSS, and whatever language implements your server.
- Fundamentally different to the sorts of programs you may have written so far

Today we're going to write a very basic web application - a number input and increment/decrement button.

Web Browser

- HTML, CSS, Javascript all are languages with internationally determined standards
 - How are decisions made on these standards?
 - Who pays for all these software engineers to do the work?
- Web browsers implement these standards and allow us to run HTML/CSS/Javascript
- You need to

HTML

- What does HTML stand for?
- HTML is the standard markup language for webpages
- HTML5 brought with it a **massive wave of changes** that has revolutionised what browsers are used for
- HTML is what provides the **structure** of the page
- Let's make the following with HTML:
 - a basic page
 - headers, lists

CSS

- CSS focuses on **styling** the structure that HTML provides
- It provides styles in a format of:
 - attribute: value
- Styles can either be:
 - Part of the HTML in the style tag
 - Inline in the HTML file
 - External in a .css file
- Let's restyle our previous page

Javascript

Javascript is the "programming language" of front-ends. The interpreters for the language are built directly into your web browser. Most modern web browsers build their Javascript interpreter on top of the popular **V8 engine**.

Javascript will feel more familiar to you than HTML/CSS.

Javascript is mainly used to essentially dynamically manipulate CSS properties on HTML elements as a result of various events that occur (user clicks, keyboard, timers).

Feedback

