COMP6080: Web Front-End Programming

Tutorial 1

Sidney Pham
sidney.pham@unsw.edu.au

UNSW

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You can email me at `sidney.pham@unsw.edu.au`. I'm always happy to be messaged about anything.

Getting to Know Each Other

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I want to find out a few things about you all:

1. Name
2. How much experience do you have with front-end development?
3. Why'd you take this course?

About the Course

https://webcms3.cse.unsw.edu.au/COMP6080/20T3/outline

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Any questions?

My Approach to Tutorials

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Our class is on Tuesday, which is pretty early, so I'll try my best to not make too many assumptions about you having watched the current week's lectures. Please remind me if I'm going too fast for you; it's important to remember that this course is relatively introductory.

Additionally, I'll often stray from what the tutorial sheet indicates, in order to give you a broader and (IMO) more relevant understanding of the content.

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Webpages are made out of HTML pages that define their structure and content. By itself, that doesn't really make it look any particular way (*a tricky point that I'll get back to later*). CSS is a language that we can use to make our HTML look pretty.

Let's See an Example

In `box.html`, from the tutorial sheet, can you make a box that:

- is 100px wide;
- is 50px high;
- has 3px of padding;
- has a 1px border that is solid and of colour #333333;
- has 5px of margin on the left and right, and 10px of margin on the top and bottom; and
- has a background colour of `rgb(255, 255, 0)`.

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(Sidney: explain browser stylesheets.)

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Browsers will probably still display your page if you disobey, because they're very flexible, but it's still invalid HTML. Also, IDs can be accessed using anchor links in URLs; and you'll end up with weird behaviour in JavaScript (e.g. `getElementById`) if there are two elements with the same ID.

Semantic HTML

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There are *many* benefits for differently-abled users of your websites (e.g. increased accesibility for screen-readers), as well as non-browser user agents (e.g. crawlers). This isn't even to mention separation of concerns and clearer DOM structure, which are themselves very important.

What Does This Mean?

This means, for example, that you should try not to rely on your browser stylesheet to make an `h2` tag look bolder than a `p` tag. Or use
 to create separate paragraphs of text (when you can use multiple <p> tags instead).

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This means, for example, that you should try not to rely on your browser stylesheet to make an `h2` tag look bolder than a `p` tag. Or use
 to create separate paragraphs of text (when you can use multiple <p> tags instead).

An `h2` tag is only *less important* than an h1 tag, not necessarily smaller, and if you want it to be smaller, make sure your CSS (or the stylesheet of the browsers that you're targeting) reflects that.

Demo

I'll demonstrate how to use Developer Tools on this site.

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Things I'd like to show:

1. Image height and width;
2. Border, padding and margin;
3. Modifying properties;
4. Font family;
5. Border radius;
6. `iframe` tags;
7. `:hover` states;

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Honestly, trying to align things before Flexbox was hell. For example, see the Clearfix Hack.

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In a recent project, I remember trying out all the different `display` options, trying different variations of `margin: auto` and even `vertical-align: center` only to have my design still look weird. But once I remembered that Flexbox was a thing, it just worked magically, which I'm way too impressed by.

Learning Flexbox

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It's fine if this part of the tutorial goes too fast for you, although I'll do my best.

An Exercise

(Note: I don't think this exercise necessarily demonstrates what you'd typically use Flexbox for.)

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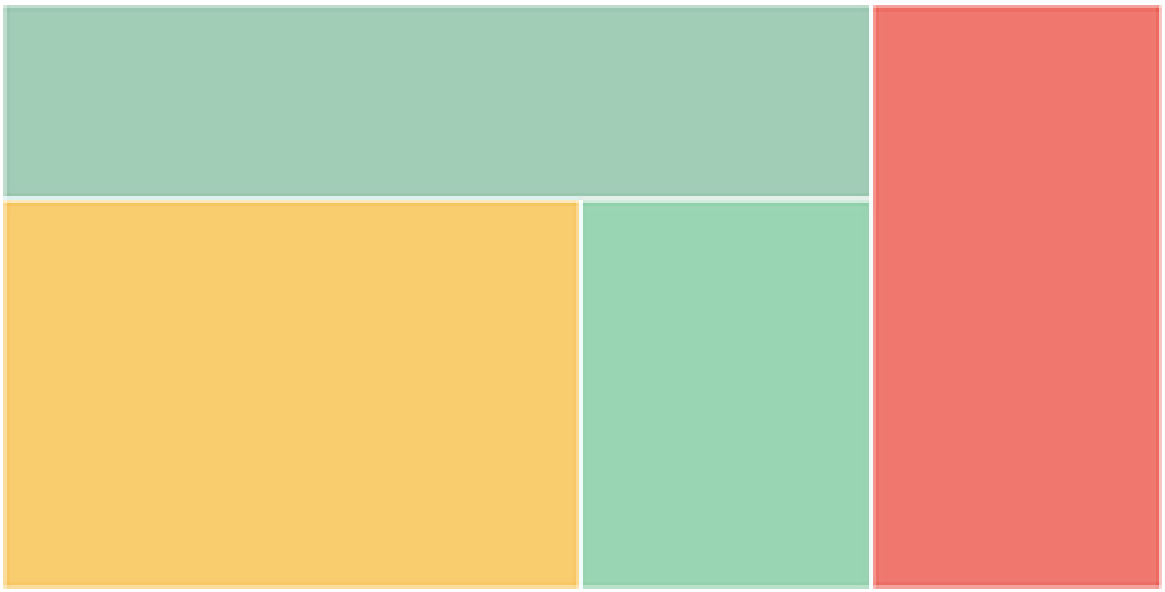
Use `div` tags with `flex` properties to create a page that vaguely resembles this image:



Mozilla Developer Network

One of the most useful resources you'll encounter in web development is the MDN web docs by Mozilla. I *highly* recommend using it as a resource when you can.

Tip: Use mdn.io

When looking for references on something like HTTP methods, you might want to Google that and choose the first MDN result. Instead, you can just type (something like) mdn.io/httpmethods into your browser. It behaves kind of like Google's "I'm feeling lucky" but for MDN.