

COMP6080 WK1 Tutorial

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Agenda

- Introductions
- Housekeeping
- HTML/CSS/JS
- Demo
- Review

Introductions

Hi, I'm Joanna 🙋

- 4th year, Computer Science / Psychology @ UNSW
- I like sunsets, bouldering and travelling!
- Email: joanna.he@student.unsw.edu.au

Now your turn

Introduce yourself - your name, degree and second most fun fact 😎

Housekeeping (1/2)

- Lectures: prerecorded (released at the start of the week) and live lectures (every Wednesday night)
- Tutorials: 1hr session to consolidate recent lecture topics (not compulsory, but highly recommended to attend)
 - Tutorial streams will be combined in week 3 onwards
- Help sessions: ~3-4 sessions held via MS Teams every week
- Assessments: four assignments in total (A1 - HTML/CSS, A2 + A3 - HTML/CSS/JS, A4 - React)

Housekeeping (2/2)

Have a question and/or stuck on something? Here's where you can ask for help:

- Course forum
- Help sessions
- Course email: cs6080@cse.unsw.edu.au
- Me: joanna.he@student.unsw.edu.au

**Now onto frontend
programming....**

HTML

HTML: Hypertext markup language

Defines the structure and content of a webpage

```
<!DOCTYPE html>
<html lang="en">
<!-- structure of the webpage -->
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <link rel="stylesheet" href="mystyle.css">
</head>
<!-- content of a webpage -->
<body>
  <h1>hello</h1>
  <!-- remember to include alt tags for better accessibility -->
  
</body>
</html>
```


CSS

CSS: Cascading style sheets

Adds styling to a webpage

```
body {  
  display: flex;  
  flex-direction: row;  
}
```

Adding styling

- Inline CSS

```
<h1 style="color:orange">hi</h1>
```

- Add css in the style tag of your HTML document

```
<head>
  <!-- your head tags here... -->
  <style>
    h1 {
      /* property: */
      color: orange;
    }

    .hi {
      color: orange;
    }
  </style>
</head>
```

I don't want to use CSS in my HTML document?

- Use a separate css file and import via the link tag

```
<!DOCTYPE html>
<html lang="en">
<head>
  <!-- other head properties... -->
  <title>Document</title>
  <!-- styles from mystyle.css will be applied to the document -->
  <style>
    /* h1 will be the colour defined in mystyle.css */
    h1 {
      color: orange;
    }
  </style>
  <link rel="stylesheet" type="text/css" href="mystyle.css">
</head>
```

JavaScript

- Adds functionality to your webpage (i.e. makes your webpage dynamic)
- Will cover in more detail in next week's tutorial

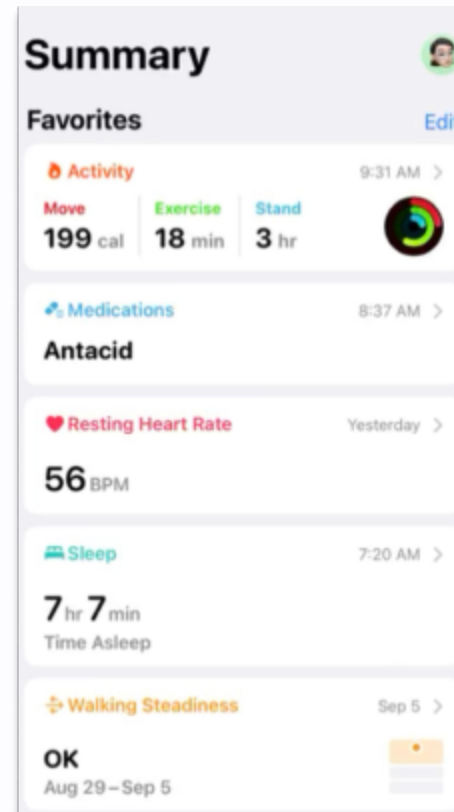
Demo

Let's recreate the Apple Health dashboard with
HTML/CSS!

For bigger screen sizes (i.e. above 1000px)



For smaller screen sizes (i.e. below 1000px)

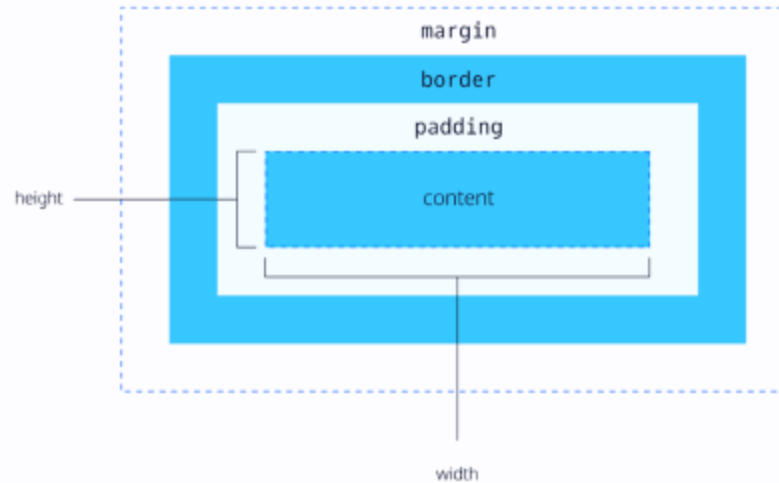


NB: All tutorial content + resources will be available at
<https://github.com/joanna209/tutoring>

**Some concepts to help you style web
pages a little easier...**

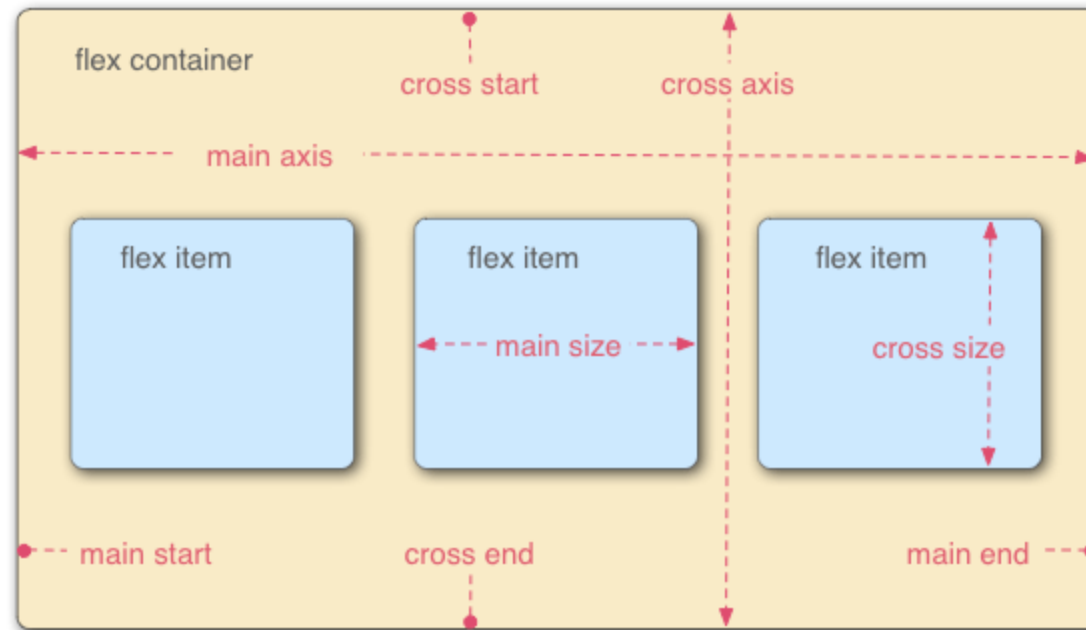
Box model

- Margin: spacing outside of the element
- Padding: spacing inside of the element



Flexbox

- One-dimensional layout method for arranging items in rows or columns



```
.wrapper {  
  /* apply flexbox */  
  display: flex;  
  /* tell the element to arrange its child elements in a column format */  
  flex-direction: column;  
}
```

Grid layout

- Two-dimensional layout method for arranging items in multiple rows and columns



```
.wrapper {  
    /* apply grid layout to child elements */  
    display: grid;  
    /* create 3 columns with a gap of 10px */  
    grid-template-columns: repeat(3, 1fr);  
    gap: 10px;  
    /* create rows with minimum of 100px */  
    grid-auto-rows: minmax(100px, auto);  
}
```

Media queries

- Apply CSS styling depending on the presence or value of device characteristics

```
/* for screen sizes 200px and above, make hi attribute blue */  
@media screen and (min-width: 200px) {  
    .hi {  
        color: blue;  
    }  
}
```


Resources

- [MDN Web docs](#) + [W3 Schools](#) - HTML/CSS/JS/Web dev documentation
- [Emmet](#) - a cheatsheet to type HTML more efficiently

VSCode extensions

- [HTML/CSS](#) - HTML/CSS autocomplete for VSCode
- [Live server](#) - provides hot reloading support for HTML documents