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Thursday - Week 3
Web Technologies

HTML

- Hypertext Markup Language
- Hypertext
  - Objects link to each other
- Markup
  - Describes *where* things are located relative to each other

2

CSS

- Cascading Style Sheets

- Selectively Style Elements of the DOM

    - Nodes

    - Identifiers

    - Class

- Rules allow us to add/subtract styling

3

JavaScript

- Not Java

- Allows HTML pages to react to user actions

- Loaded by the browser and run on client computer

- ES6

- Dependencies ...

NodeJS

- JavaScript modified to run without the browser

- Can host servers

- We deal with it in detail in weeks 5-8

Bootstrap

- Front-end component library
  - Cool UI bits

- Includes CSS & JavaScript libraries to ensure functionality over different clients (Desktop/Mobile)

Angular

- Manipulate Virtual DOM
    - As apposed to reloading a normal DOM
- Maintained by Google

- "Embed JavaScript in HTML"

- Typescript (or ES6)

- MVC pre-setup (Thus restrictive)

React

- Also Virtual DOM

- Maintained by Facebook

- "Embed HTML in JavaScript"

- More diversely supposed than Angular

  - Personal preference

- Only V of MVC (you must create the rest)

Vue

- The third in the trio

  - Newest

- Created by Evan You after working on Angular

Material

- UX standard
    - How things look - Buttons, Menus, etc.

- Android / Gmail / etc.

Workbox

- Libraries / Modules (JavaScript)

- Progressive Web Apps

  - Web page that acts like an app

- Lets apps pre-cache
  function with intermittent connectivity

- Maintained by Google

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Thursday - Week 3

Monolithic vs. Micro-services

Model-View-Controller

- Model

- View

- Controller

Monolithic

- Single Application - Single server

- One large server

  - Centralised

Micro-services

- Application is divided into pieces

- Many smaller servers

  - Decentralised

  - Resources balanced by need

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SOAP (and REST)

SOAP

- Simple Object Access Protocol

- XML Protocol

- SOAP sender/receiver

  - Implement the protocol

  - Binding over layers

- Much more complicated than REST

REST

- Covered previously

- Much simpler

- Convention (not a standard)

Thursday - Week 3
Tasks

Thursday Tasks

- Continue with group tasks

- Watch the videos