Contemporary Web Development
Lesson 2

https://www.youtube.com/channel/UCGwu0nbY2wSkW8N-cghnLpA

Solution to the stack/queue tracing exercise

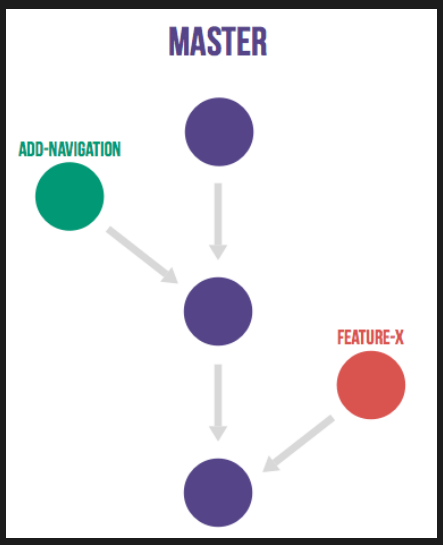
Setting up the environment

Git

Fast, scalable, distributed.

Very convenient if you know how to use it, but when you need more advanced recovery features, can get confusing.

Feature Branches



A note about branches – Will not be taught in the course but you must learn how to use them when working in a team. Check documentation here.

Story from Tzina about WebGL performance optimizations.

First steps

1) Create a project at https://version.aalto.fi
2) Clone it from terminal using "git clone" and "cd" .
3) Get a .gitignore for Node JS
   a) wget "https://raw.githubusercontent.com/github/gitignore/master/Node.gitignore"
   b) mv Node.gitignore .gitignore
4) Push the change
   a) git add -A
   b) git commit -a
   c) git push

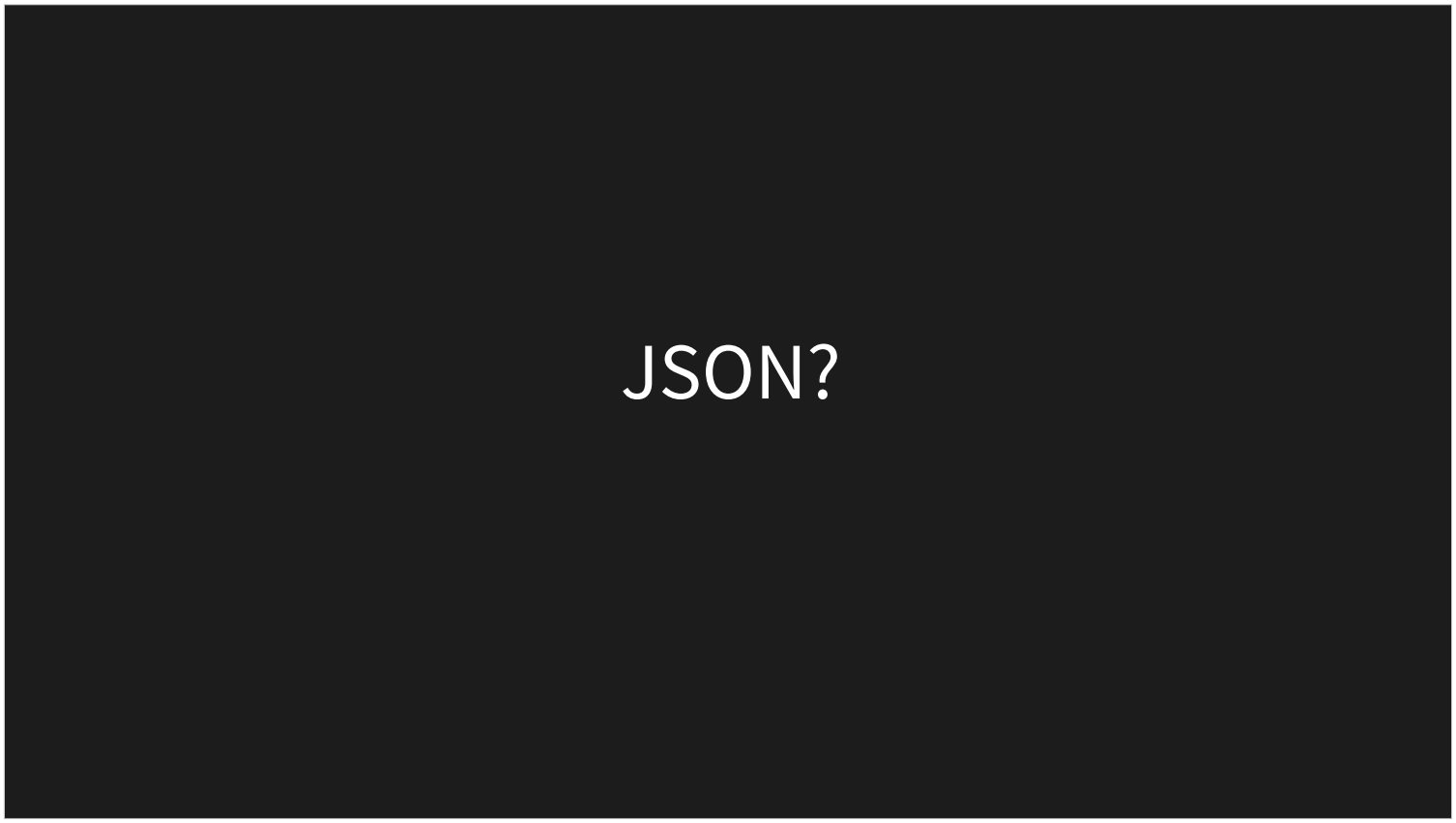
* If you don’t want to be asked for your username all the time, change in .git/config to something like:
https://peleda1%40aalto.fi@version.aalto.fi/gitlab/peleda1/webdev.git
You can also save the password but that is insecure!
** For code reference you can clone my project at
https://version.aalto.fi/gitlab/peleda1/webdev

Node & NPM

Init the project

1) npm init (Accept defaults)

A package.json is born



Let's review the package.json


BABEL

npm install

1) npm install --save-dev @babel/core

   save-dev will make sure these packages are used only for development.

2) npm install --save-dev @babel/preset-env

   This preset of plugins allow us to choose which browsers we want to support.

3) More later...

Webpack

npm install

1) npm install --save-dev webpack
2) npm install --save-dev webpack-cli
3) npm install --save-dev webpack-dev-server
4) npm install --save-dev babel-loader
   Webpack loader for Babel!

Basic webpack.config.js

Download here

Npm start script

HTML is not handled by webpack so it does not auto refresh.
Here's how to do it with html.

ES6 Modules

```
import {bakeCookie, COOKIE_STATES} from './oven'

bakeCookie({state: COOKIE_STATES.RAW});
```

```
import * as Oven from './oven'

let cookie = {
  state: Oven.COOKIE_STATES.RAW
}
Oven.bakeCookie(cookie);
```

```
import bakeCookie from './oven'

bakeCookie({state: “???”});
```

oven.js

```
export const COOKIE_STATES = {
  BAKED: "BAKED",
  RAW: "RAW"
}

export let totalCookiesBaked = 0;

export default function
bakeCookie(cookie) {
  cookie.state =
COOKIE_STATES.BAKED;
  totalCookiesBaked += 1;
}
```

The Shape Maker

Link

HOT Module Replacement

Exercise – Add and demonstrate CSS HMR to your project

https://webpack.js.org/guides/hot-module-replacement/#hmr-with-stylesheets