FIRST SERVE

Chrome File -> Open File

- IS rendering
- IS NOT a "served" html file

INSTALLING VIA NPM

NPM is

- N - Node
- P - Package
- M -
  Manager

Manages the installation and update of tools and libraries that involve NodeJS

GLOBAL VS LOCAL

A "Global" install puts the package on the machine without regard to where you are.

Global installs are appropriate for system tools that aren't based on what you are specifically working on.

A "Local" install puts the package underneath a specific directory, and is intended for use with the contents of that directory only.

Local installs are appropriate when the version of the tool/library is specific to the application in that directory.

WHEN GLOBAL

Can I use a different version of this, or even have a different program for that functionality?

- Global is fine
- Examples: Editors, browsers, spellcheckers

WHEN LOCAL

Do all users/developers need the same version of this to have the same experience?

- Local is appropriate

Do users need this to run/use the application, but it's not something I can assume they have installed?

- Local is probably appropriate

THIS TIME WE ARE GLOBAL

We will be installing a simple, general use webserver

It is not specific to the test code we'll be using

We will use it with many test codes

We don't expect others to use this at all

- Global install

INSTALLING SERVE

```
npm install -g serve
```

- `npm` is running npm
- `install` is a parameter passed to npm program, telling it what to do
- `-g` is a "switch", a parameter to alter how it runs the command
- `serve` is a parameter to npm, telling `npm install` what to install
- Because this is a global install, doesn't matter where you are when you run it
- You DON'T want to run this as `sudo`

RUNNING SERVE

```
serve
```

This will run a webserver that serves static files where the webserver root is the current directory

WUT?

```
run a webserver
```

- A program that serves web pages to incoming web (HTTP) requests
- Your machine can be reached as `127.0.0.1` using DNS name of `localhost`
  - These mean "me".
  - Dorothy from the Wizard of Oz says "There's no place like 127.0.0.1"
- It will default to port 5000 if available
- a "port" is basically a "subaddress" on the machine. Servers "listen" and "send" traffic on a port.

WUT? - STATIC FILES

```
that serves static files
```

A "Static" file is a file that exists as a file.

- The webserver will send the contents of the file from the filesystem

The opposite of a "static" file is a "dynamic" file.

A dynamic file doesn't exist as a file

- generated in response to the request

Like someone telling you the contents of an existing note (static) vs telling you something new on the spot (dynamic).

WUT? - WEBSERVER ROOT

```
the webserver root is the current directory
```

When the webserver needs access to static files, it needs to find them.

You don't want the webserver giving access to every file on the computer.

The "webserver root" is the root of the directory tree of files it can offer access to.

THAT IS WUT

Running the command 'serve' will run a webserver
that serves static files
where the webserver root is the current directory

DEFAULTS

Run `serve`; Browse `http://localhost:5000/`

- We each get only our machine as localhost
- Other IP address is based on current network
- Many places (like NEU) block web traffic INTO personal machines

If no `index.html` file, `serve` shows a file listing

- Default `index.html` is common, but not universal.
  - Up to *webserver* to decide this
- Most production servers won't show a directory

SUMMARY - NPM

- NPM installs and manages tools and libraries for NodeJS
- You can install locally or globally
  - Global installs for tools not part of an app
  - Local installs for anything part of an app
- You should not install as sudo/root/administrator

SUMMARY - WEBSERVERS

- Webservers listen to a `port`
- Webservers serve `static` and `dynamic` "assets" (files)
- 127.0.0.1/localhost means "me"/"yourself"
- `index.html` is a common default if no file in URL for a static asset
- Development servers may show a directory listing if no `index.html`