

CS4220

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# CURRENT TRENDS IN WEB DESIGN AND DEVELOPMENT

## AGENDA

- ▶ Command-Line Interface (CLI)
- ▶ Scaffolding a Vue Application
- ▶ Single-Page Components
- ▶ Simple State Management

## CLI

- ▶ Vue provides an official CLI for quickly scaffolding Single Page Applications.
  - ▶ Batteries-included build setups for a modern frontend workflow.
  - ▶ Hot-reload, lint-on-save, and production-ready builds.
- ▶ `npm install -g @vue/cli`
  - ▶ <https://github.com/vuejs/vue-cli>
- ▶ `npm install -g @vue/cli-init`
  - ▶ <https://github.com/vuejs-templates/webpack-simple>

## SCAFFOLDING AN APP

- ▶ `vue init webpack-simple my-project`
- ▶ `cd my-project`
- ▶ `npm install`
- ▶ `npm run dev`

# SINGLE FILE COMPONENTS

- ▶ <https://vuejs.org/v2/guide/single-file-components.html>
- ▶ Single-file components in Vue are made possible due to build tools like Webpack and Browserify.
  - ▶ These tools work alongside the vue-loader or vueify packages respectively to compile .vue components to plain JavaScript modules that can be understood in browsers.
- ▶ With the single-responsibility principle, we'll be able to componentize our application with the help of single-file components.

# SIMPLE STATE MANAGEMENT

- ▶ State means data.
  - ▶ State management often refers to the management of application level data.
- ▶ Simple state management can be performed by creating a store pattern that involves sharing a data store between components.
- ▶ The store manages this state with its actions/mutations/etc... and simply passes the same data to multiple components.

## EXAMPLE

- ▶ Create a SPA that allows Users to add Todo items to each of the courses they are enrolled in.
- ▶ A User should be able to add new Todos, and mark Todos as done
- ▶ Lab
  - ▶ Allow a User to Delete any Todo
  - ▶ Allow a User to Edit any Todo
  - ▶ Allow a User to *Archive* all completed Todos
    - ▶ Archive simply means remove all Todos that are completed so they do not crowd the screen.