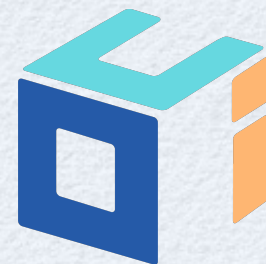




Vue

slides at <https://github.com/mvolkmann/talks>

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OCI | TRAINING

Outline

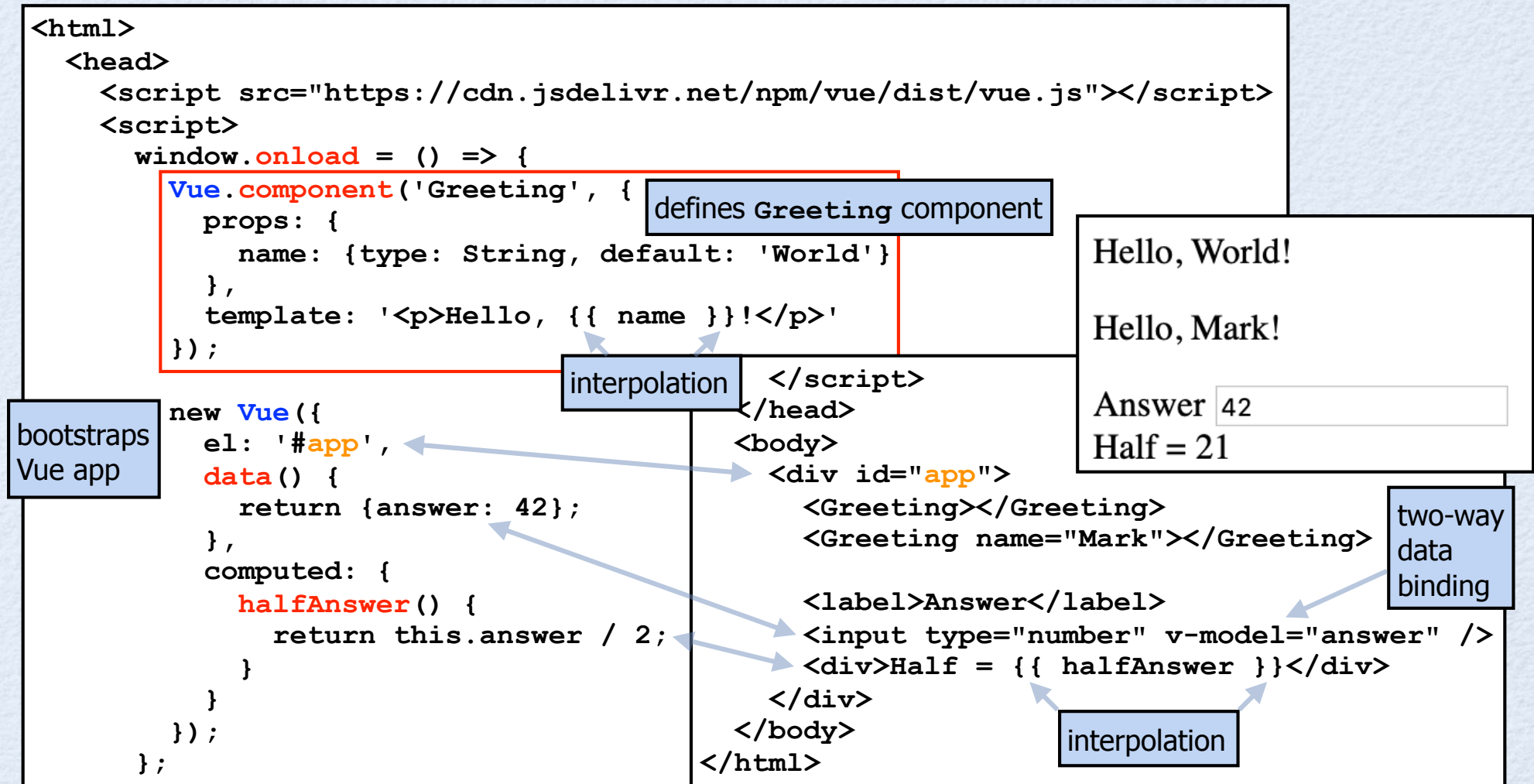
- Intro - exercise
- Tools
- Components - exercise
- Templates - exercise
- Styling
- Todo App
- CLI
- Browser Devtools - exercise
- Component Lifecycle - exercise
- Events
- Slots
- REST - exercise
- Router - exercise
- Vuex
- Vue vs. React
- Jest
- Cypress
- Storybook

Vue Overview

- A web application framework that competes with frameworks such as React, Angular, and Svelte
- Generally viewed as easier to use than Angular
- Appeals to developers that dislike use of JSX in React
 - though Vue also supports JSX
- Uses a Virtual DOM like React
 - unlike Angular and Svelte
 - can quickly determine whether changes to actual DOM are needed
- Small runtime - ~20KB minified and gzipped
- Implemented in TypeScript

No Build Steps Needed

- While this can be done, it is mostly only for demo apps



Getting Real

- Most real Vue apps start with Vue CLI
- Can create file structure for new projects
- Can add features to existing projects
 - **warning:** commit existing files to version control in case it overwrites some files
- Configures use of Babel for transpiling
- Configures use of Webpack for module bundling
- Provides npm scripts to **serve** the app and **build** for production
- Can request support for linting, unit tests, end-to-end (E2E) tests, and more

Installing and Running

- To install, `npm install -g @vue/cli`
- Two ways to run
 - command line
 - web UI
- We'll cover basic command line usage now
- Other Vue CLI options will be covered in detail later

Create and Run a Project

- Create a new project
 - `vue create project-name`
 - press enter to select "default" preset
 - runs for a minute or so
- Follow directions output at end
 - `cd project-name`
 - `npm run serve`
 - starts a local HTTP server
- Browse local URL this outputs
 - doesn't automatically open a tab in default browser
 - `http://localhost:8080` unless something else is already listening on that port
 - bookmark this



Welcome to Your Vue.js App

For a guide and recipes on how to configure / customize this project, check out the [vue-cli documentation](#).

Installed CLI Plugins

[babel](#) [eslint](#)

Essential Links

[Core Docs](#) [Forum](#) [Community Chat](#) [Twitter](#) [News](#)

Ecosystem

[vue-router](#) [vuex](#) [vue-devtools](#) [vue-loader](#) [awesome-vue](#)

Project Structure

- Projects created by Vue CLI have following structure
 - **node_modules** - contains modules used by project
 - **public**
 - **favicon.ico** - icon displayed in browser tab
 - **index.html** - contains `<div id="app"></div>`
 - **src**
 - **main.js** - bootstraps application targeting `#app`
 - **App.vue** - top/root component
 - **views** directory - contains definitions of Vue components that represent "pages" (if "Router" requested)
 - **components** directory - contains definitions of Vue components used on pages
 - **assets** directory - contains images and other media files
 - **router.js** - configures use of vue-router for page routing (if "Router" requested)
 - **store.js** - configures use of Vuex for state management (if "Vuex" requested)
 - **package.json** - lists project dependencies and defines npm scripts
 - **package-lock.json** - lists specific versions of project dependencies to "lock" to them
 - **babel.config.js** - configures Babel transpiler
 - **.gitignore** - lists directories and files that should not be committed in Git

Things Nobody Does

- While many things are possible in Vue, there are some things almost nobody does
 - start a project without using Vue CLI
 - create components using the `Vue.component` function instead of using single file components (SFCs) defined in `.vue` files
 - use `v-bind`: instead of the `:` shorthand
 - use `v-on`: instead of the `@` shorthand
- More on all of these later

Exercise

- Install Node.js
 - browse <https://nodejs.org>
 - click one of the green buttons
 - double-click downloaded installer to run it
- Create a new project using Vue CLI
 - `npm install -g @vue/cli`
 - `vue create my-project`
- Run it
 - `cd my-project`
 - `npm run serve`
 - browse `localhost:8080`
- Files for upcoming exercises are at <https://github.com/mvolkmann/vue-workshop>
 - clone the repo or download a zip file