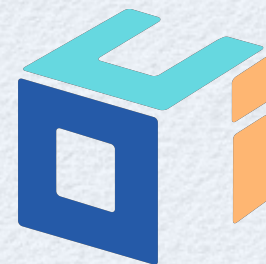




# Vue

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

**R. Mark Volkmann**  
Object Computing, Inc.  
<http://objectcomputing.com>  
Email: [mark@objectcompuing.com](mailto:mark@objectcompuing.com)  
Twitter: @mark\_volkman  
GitHub: mvolkmann



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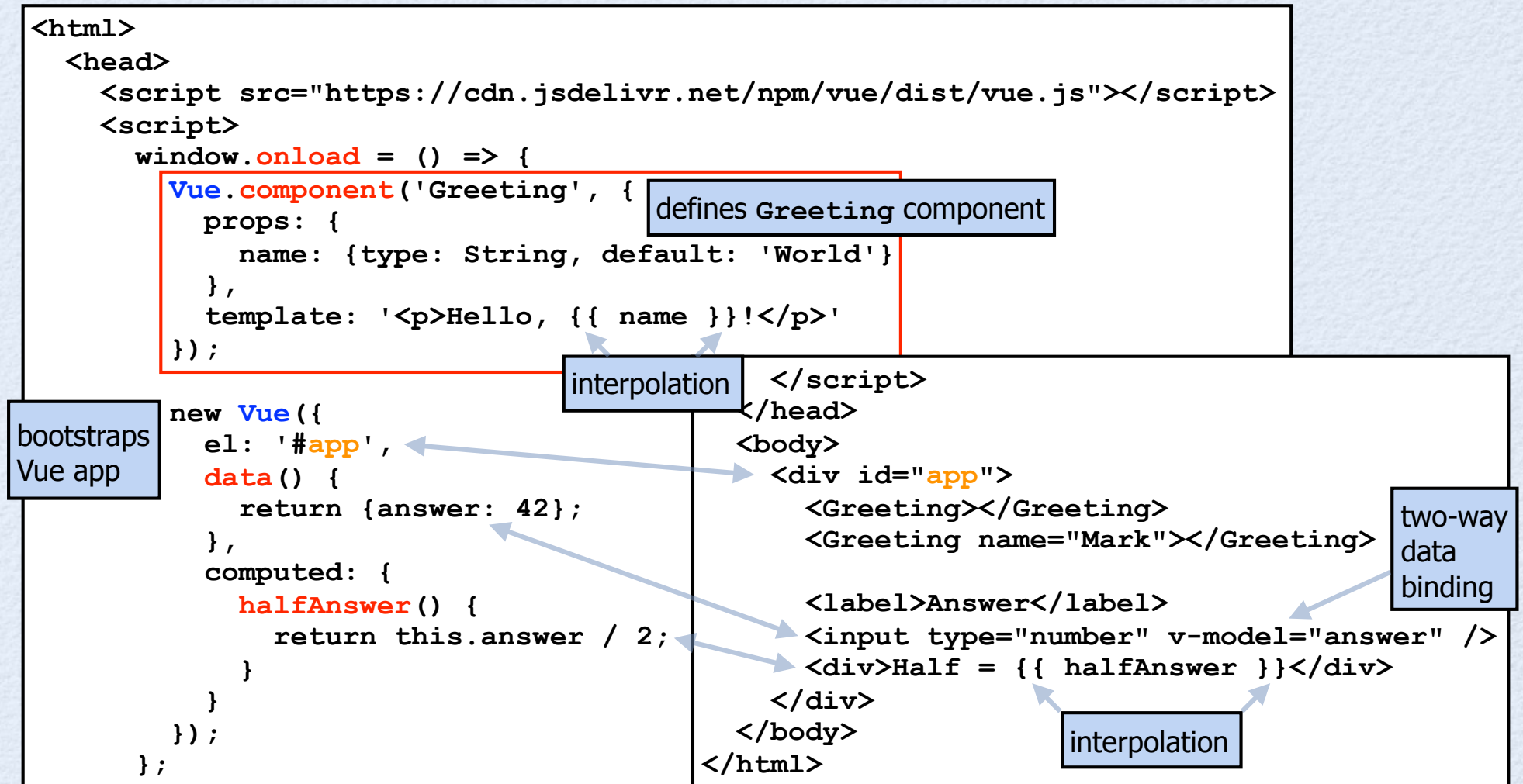
# Vue Overview

- A web application framework that competes with frameworks such as React and Angular
- 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
  - can quickly determine whether changes to actual DOM are needed
- Small runtime - ~20KB minified and gzipped
- Vue version 3 is 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 the 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
  - create bookmark to 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
    - **App.vue** - top/root component
    - **views** - directory contains definitions of Vue component 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`