Maslow’s Hammerand a SPA

## Objective:

Maslow’s Hammer 1966:  "I suppose it is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail.” According to Wikipedia, was referred to as “a Birmingham screwdriver” at least a century prior. <https://en.wikipedia.org/wiki/Law_of_the_instrument>

Demonstrate the development of a simple Vue.JS “Single Page Application” (SPA) to display earthquake information obtained from the United States Geological Survey: <https://earthquake.usgs.gov/earthquakes/feed/>

Close the news tabs and show the others.

## Required Installs:

1. Node.js and npm installed
2. Install Vue and CLI: npm i -g vue @vue/cli @vue/cli-service-global
3. Install VS Code & Vetur plug in for highlighting

## Steps:

1. Open VsCode and navigate to the folder above the project and enter: vue create vue-adug
2. Use manual to show options.
   1. Babel: Transpiles ES6 JS to ES5 for old browser compatibility
   2. Typescript: A strongly type version of JS, transpiled into JS
   3. Router: Manages transition between pages
   4. Vuex: Maintains state within the application between pages & components
   5. CSS Pre-processor: Think of it as scripting for CSS. Define variables used throughout the CSS of the app.
   6. Linter/Formatter
   7. Unit Testing
   8. E2E Testing
3. Now open the vue-adug directory in VSCode DON’T have a quick overview yet!
4. Open the terminal: Ctrl `
5. Add Vuetify: vue add vuetify
6. Run the project: npm run serve
7. Show files, including HelloWorld.Start from the bottom of the list.
8. Change the “Welcome To Vuetify”, save and show re-load
9. End the npm server: Ctrl-c
10. Add Axios for http: npm i axios
11. Then: npm install
12. Questions so far? (While installing axios)
13. Remove HelloWorld.vue, the images from assets and create Earthquakes.vue:

<template>

<v-container>

<v-layout column align>

<v-row xs12>

<v-col cols="12">

<div class="text-h4">Earthquakes</div>

</v-col>

</v-row>

</v-layout>

</v-container>

</template>

<script>

export default {

};

</script>

<style>

</style>

1. Update App.vue:

<template>

<v-app>

<v-app-bar >

<v-toolbar-title class="headline">

<span>ADUG Canberra Demo</span>

</v-toolbar-title>

</v-app-bar>

<v-container class="fill-height">

<v-main>

<Earthquakes/>

</v-main>

</v-container>

</v-app>

</template>

<script>

import Earthquakes from './components/Earthquakes.vue';

export default {

name: 'App',

components: {

Earthquakes,

}

};

</script>

<style>

</style>

1. Display results
2. Modify Earthquakes.vue. Replace title “Earthquakes” with {{title}} and add {{info}} after header then:

export default {

//mounted() {

// axios

// .get(

// "https://earthquake.usgs.gov/earthquakes/feed/v1.0/summary/2.5\_day.geojson"

// )

// .then(response => {

// this.info = response;

// }); },

data() {

return {

title: "Earthquakes!",

features: [],

info: null

};

}

};

1. Explain and check results
2. Uncomment the mounted function and save. It will fail because there’s no import. Add it: import axios from "axios";
3. Update the mounted method and explain:

mounted() {

axios

.get(

"https://earthquake.usgs.gov/earthquakes/feed/v1.0/summary/2.5\_day.geojson"

)

.then(response => {

this.info = response;

this.title = response.data.metadata.title;

response.data.features.forEach(feature => {

this.features.push({

id: feature.properties.id,

title: feature.properties.title,

mag: feature.properties.mag,

time: new Date(feature.properties.time).toISOString(),

url: feature.properties.url,

visible: true

});

});

})

.catch(error => console.log(error));

},

1. Add the following HTML before the and explain:

v-flex xs12 sm6 md5 lg3>

</v-flex>

<v-list subheader three-line xs9 sm6 md4 lg3>

<div v-for="feature in features" :key="feature.id">

<v-list-item v-if="feature.visible">

<v-list-item-content>

<v-list-item-title>

<a :href="feature.url" target="\_blank" rel="noopener noreferrer">{{feature.title}}</a>

</v-list-item-title>

<v-list-item-subtitle>

Magnitude: {{feature.mag}}

<br />

Time: {{feature.time}}

</v-list-item-subtitle>

</v-list-item-content>

</v-list-item>

</div>

</v-list>

1. Display.
2. Any questions?

## If Time Permits…

1. Add to data: filter: null,
2. Add filter input:

<v-flex xs12 sm6 md5 lg3>

<v-text-field v-model="filter" label="Filter" @input="filterResults" clearable></v-text-field>

</v-flex>

1. Add filter method:

methods: {

filterResults() {

this.features.forEach(feature => {

if (this.filter == null) {

feature.visible = true;

} else {

const title = feature.title;

feature.visible = title

.toLowerCase()

.includes(this.filter.toLowerCase());

}

});

}

}

1. Add to v-list-item: v-if="feature.visible"

## If There’s Still More Time

1. Demonstrate deployment

## Other Notes

1. Vue does **not** support IE8 and below, because it uses ECMAScript 5 features that are un-shimmable in IE8. However it supports all [**ECMAScript 5 compliant browsers**](https://caniuse.com/#feat=es5): <https://caniuse.com/#feat=es5>

## References:

Final code is on Github at: <https://github.com/SteveCorbett/vue-adug>

1. <https://en.wikipedia.org/wiki/Law_of_the_instrument>
2. <https://code.visualstudio.com/>
3. <https://nodejs.org/en/docs/> and <https://nodejs.org/en/download/>
4. <https://vuejs.org/v2/guide/installation.html>
5. <https://cli.vuejs.org/>
6. <https://www.taniarascia.com/getting-started-with-vue/>
7. <https://vuetifyjs.com/en/>
8. <https://www.usgs.gov/natural-hazards/earthquake-hazards/earthquakes> and <https://earthquake.usgs.gov/earthquakes/feed/> and <https://earthquake.usgs.gov/earthquakes/feed/v1.0/geojson.php>
9. <https://github.com/babel/babel>
10. <https://github.com/axios/axios>

## News Items

1. <http://www.delphifeeds.com/>
2. <https://www.zdnet.com>
3. <https://insights.stackoverflow.com/survey/2020#overview>
4. <https://www.embarcadero.com/embarcadero-mvp-program>