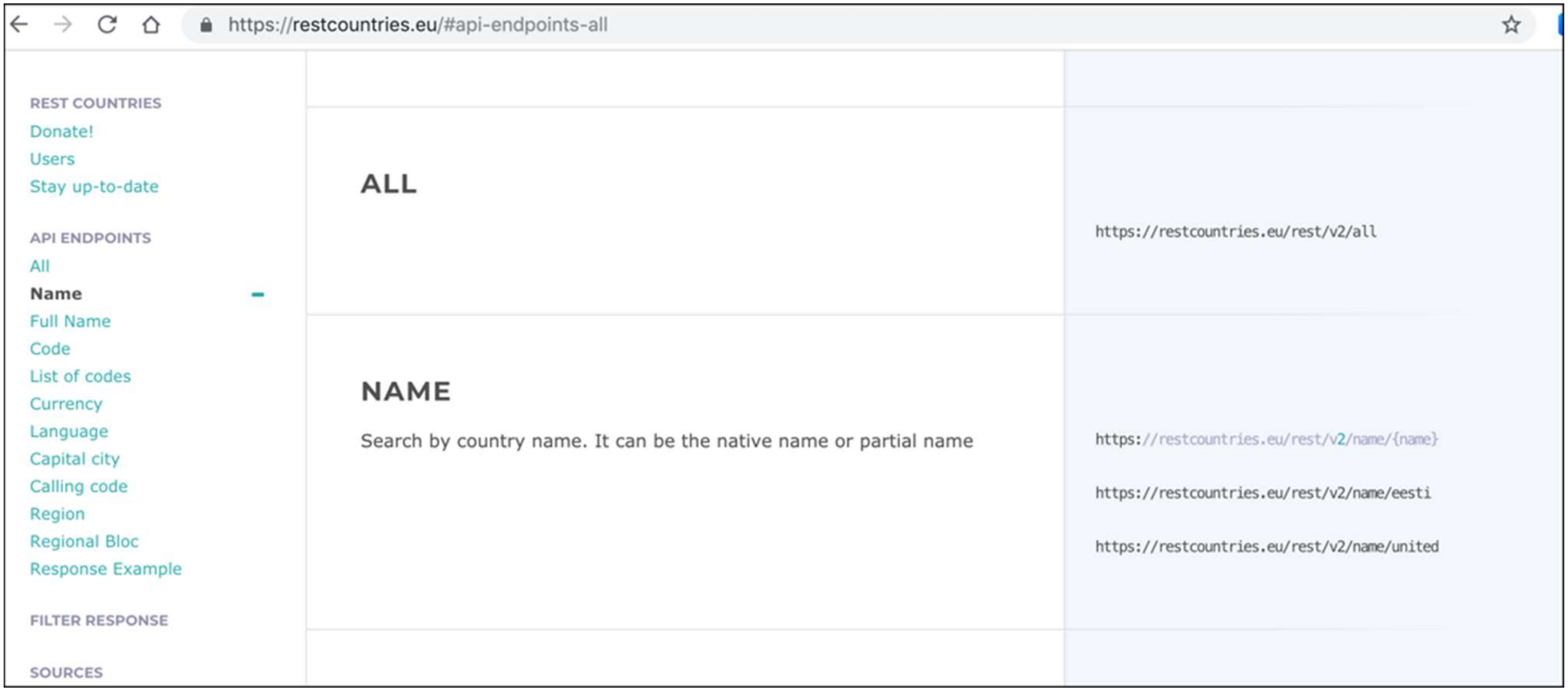
Vue Fundamentals – 06 Using Http directly

Peter Kassenaar – info@kassenaar.com

Consuming data from an API

- We’re going to talk to a ‘real’ country-API on the internet
  - https://restcountries.com/
- Using `http` is *not* built into Vue.js



ALL

https://restcountries.eu/rest/v2/all

NAME

Search by country name. It can be the native name or partial name

https://restcountries.eu/rest/v2/name/{name}

https://restcountries.eu/rest/v2/name/eesti

https://restcountries.eu/rest/v2/name/united

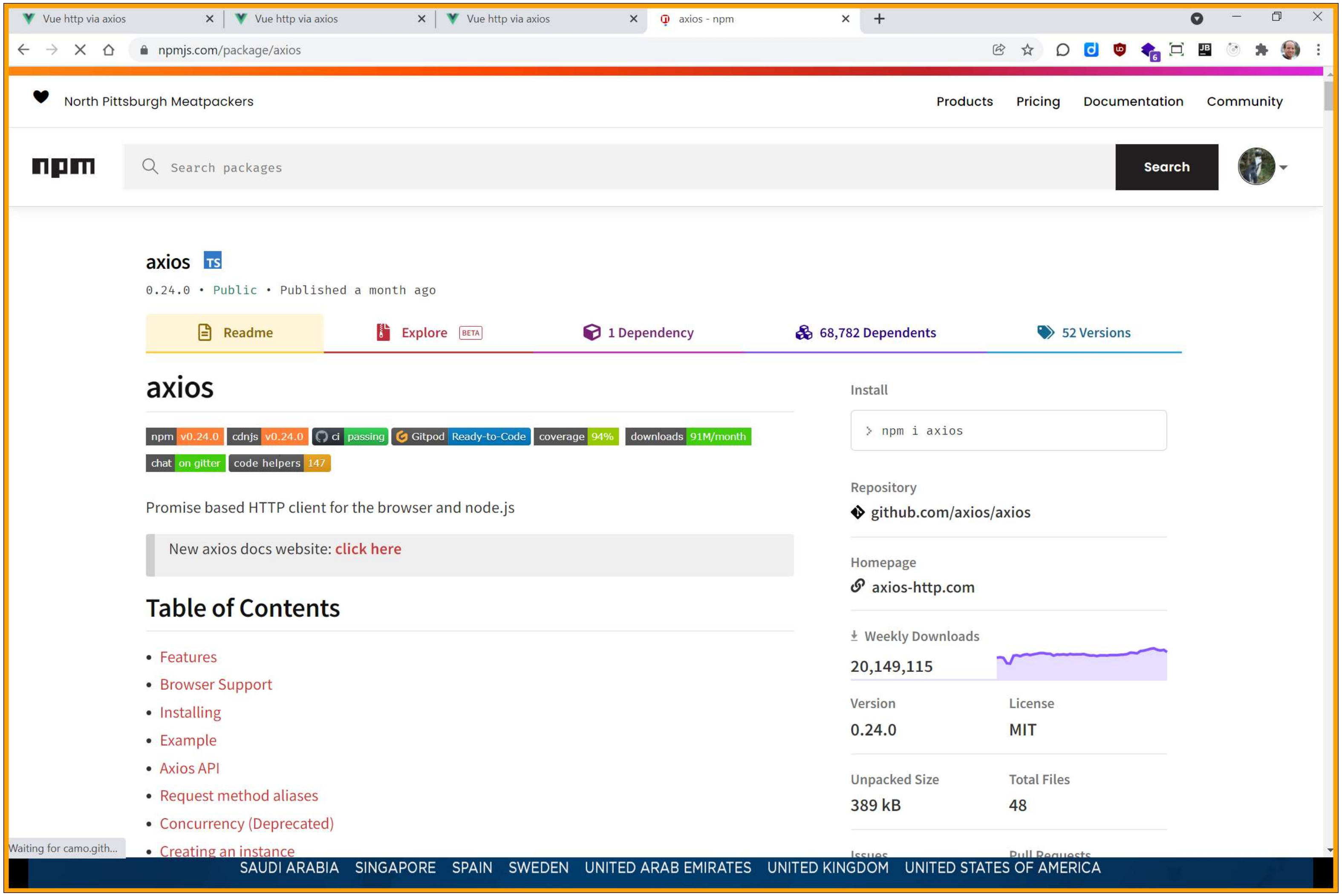
Using Axios

“There are many times when building application for the web that you may want to consume and display data from an API. There are several ways to do so, but a very popular approach is to use ***axios****, a promise-based HTTP client.”*

https://github.com/axios/axios

https://vuejs.org/v2/cookbook/using-axios-to-consume-apis.html

https://www.npmjs.com/package/axios



axios TS

0.24.0 • Public • Published a month ago

axios

npm v0.24.0 | cdnjs v0.24.0 | ci passing | Gitpod Ready-to-Code | coverage 94% | downloads 91M/month | chat on gitter | code helpers 147

Promise based HTTP client for the browser and node.js

> New axios docs website: click here

Table of Contents

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Install

```
> npm i axios
```

Repository

github.com/axios/axios

Homepage

axios-http.com

Weekly Downloads

20,149,115

Version	License
0.24.0	MIT

Unpacked Size	Total Files
389 kB	48

Issues Pull Requests

Waiting for camo.gith...
SAUDI ARABIA SINGAPORE SPAIN SWEDEN UNITED ARAB EMIRATES UNITED KINGDOM UNITED STATES OF AMERICA

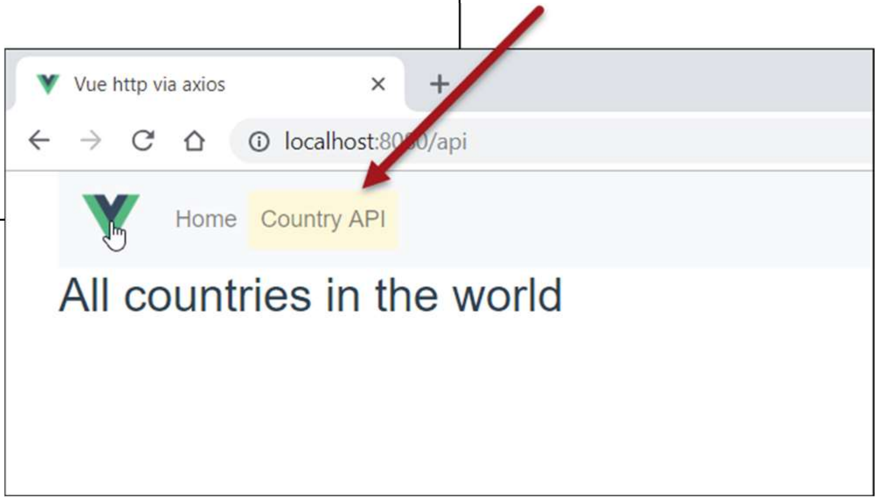
Installing axios

- Add axios to your project
  - `npm install axios --save`
- Import axios in the component where you want to use it.
- It is actually considered *bad* practice to use axios or Http-calls directly from a component!
  - Recommended – us a store mechanism, like Vuex.
  - Or work from a separate Service/API/Data Access layer.

New route

- We're creating a new route and a new component to navigate.
  - Create `ApiComponent.vue`
  - Just an empty component for now
  - Add the route like so:

```
// Component for using to the country API RestCountries
{
   path: '/api',
   name: 'api',
   component: ApiComponent
}
```



All countries in the world

Using axios

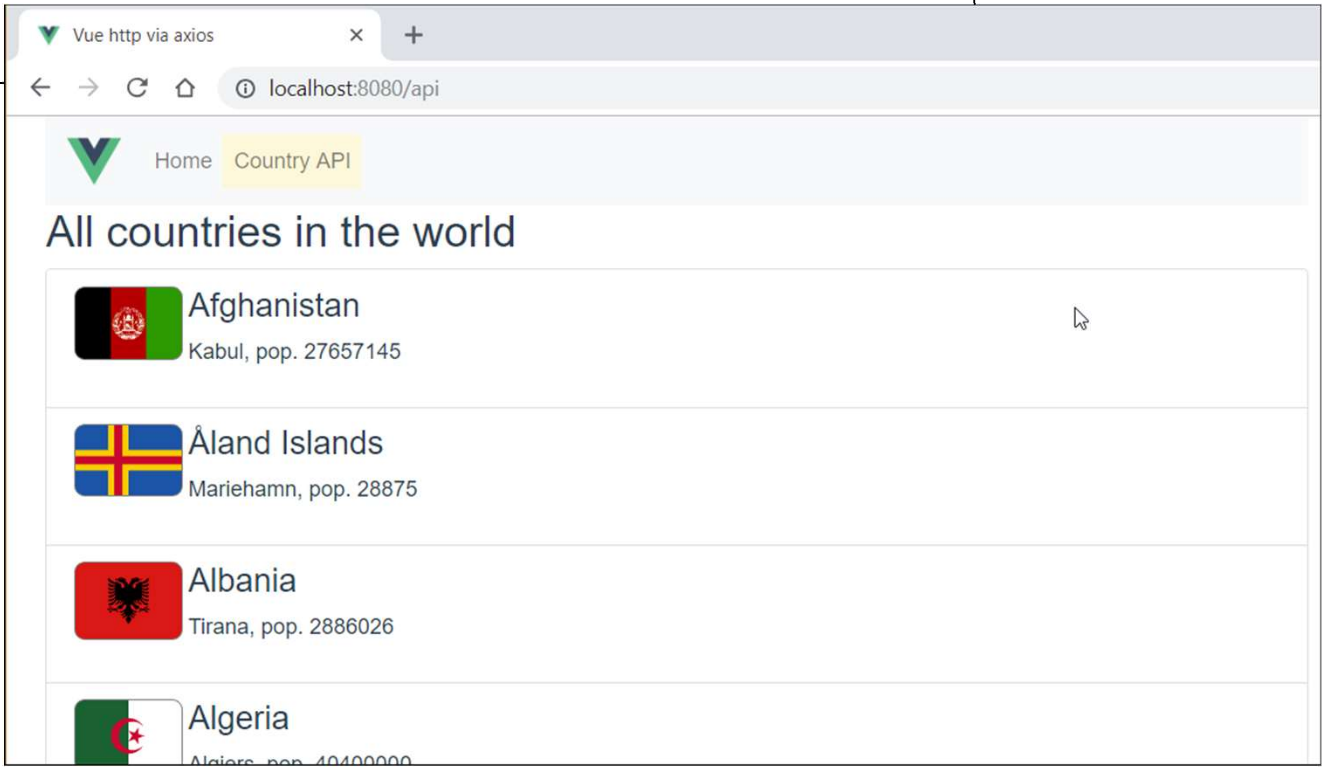
- Call axios inside the component
  - For instance in the `created()` lifecycle hook
  - But can be in an `@click`-method as well…

```
data() {
    return {
        // url of the external api
        url: 'https://restcountries.com/v2/all',
        countries: [],
        errors: []
    }
},
created() {
    // call axios with the url, it returns a promise.
    axios.get(this.url)
        .then(response => this.countries = response.data)
        .catch(err => this.errors.push(err))
}
```

Update your HTML

```
<ul class="list-group" v-if="countries && countries.length">
    <li class="list-group-item" v-for="country of countries">
        <span class="float-left">
            <img :src="country.flag" class="imgFlag">
        </span>
        <h4>{{ country.name }} </h4>
        <p>{{ country.capital}}, pop. {{ country.population}}</p>
    </li>
</ul>
```

Result



All countries in the world

Afghanistan
Kabul, pop. 27657145

Åland Islands
Mariehamn, pop. 28875

Albania
Tirana, pop. 2886026

Algeria
Algiers, pop. 40400000

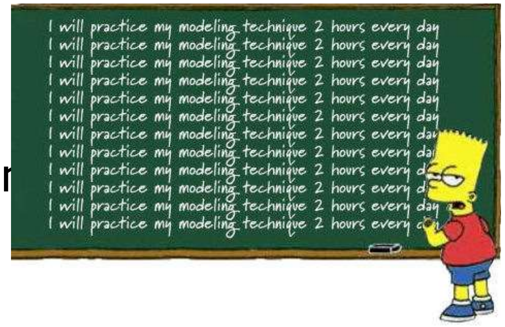
Async/await

- You can use async/await with axios
  - Not supported in older browsers (IE 11)
  - Results in the UI are identical

```
async created() {
    // async / await version (created() becomes async created())
    try {
        const response = await axios.get(this.url)
        this.countries = response.data
    } catch (err) {
        this.errors.push(err)
    }
}
```

Workshop

- Use your own application, or start from `../330-http-axios`
- Add a new component `<ApiCountryDetail>`
- If a country is selected, go to a country detail page for that country.
- Fetch info for that country over `axios`, show detail component
  - Tip : use the name of `fullname routes` of the API. See https://restcountries.com/#api-endpoints-v2-name for details
- Optional – Create an `<ApiSearchCountry>` component, where the user can type in (a part of) the name.
  - Search for that country/countries, show them.
  - When clicked, they should also load the detail componen
  - Solution (…/`330-workshop`)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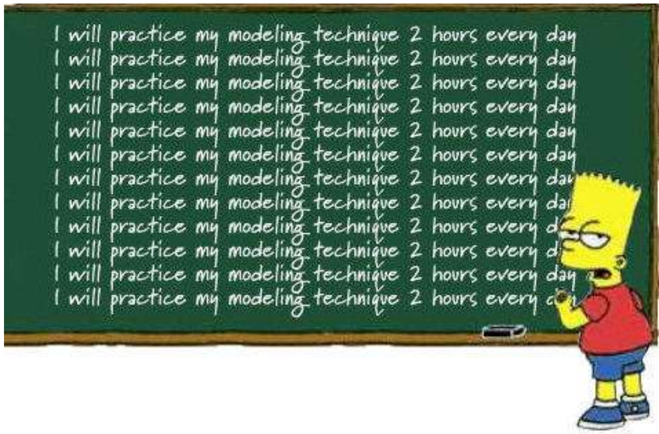
Example - other API’s

- https://pokeapi.co/ - Pokemon API
- http://openweathermap.org/API (weather forecast)
- https://jsonplaceholder.typicode.com/ random users, posts, photos
- http://ergast.com/mrd/ - Ergast Motor (F1) API
- http://www.omdbapi.com/ - Open Movie Database
- https://swapi.dev/ - Star Wars API
- …many, many more (https://github.com/public-apis/public-apis)

Workshop

- Create a small application using one of the API's in the previous slide, for example
  - Pokemon API
  - OMDB API
  - OpenWeatherMap API
  - …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Checkpoint

- You can perform http-calls from your Vue application using axios
- You are able to handle the results from an external API and show them in the UI.
- You can do promise-based calls and async/await-based calls