Web Services (GET): Tutorial (Javascript)

In this tutorial, you'll work on a document listing application. Most of the functionality to render data is in the starting code. You're responsible for calling the Web API to retrieve a list of documents and details for each one.

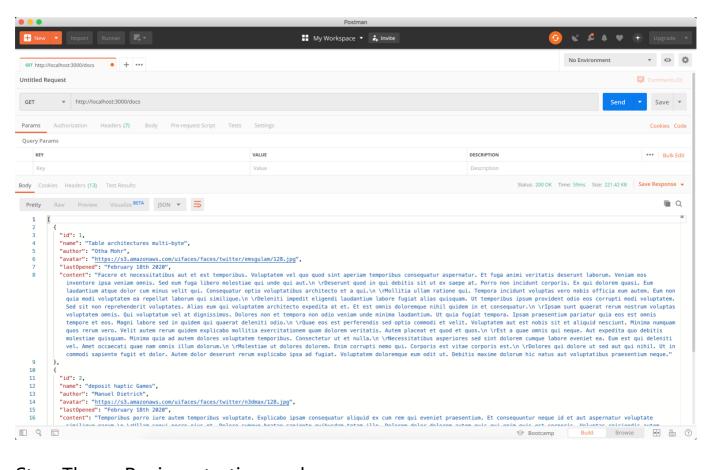
Step One: Run the project

The first thing to do is install any dependencies by running the command npm install. If you run the project using the command npm run serve, the Vue application starts normally on port 8080. The serve command also starts up a local Web API on port 3000.

Step Two: Explore the web API

Before moving on to the next step, explore the web API using Postman. You can access the following endpoints:

- GET: http://localhost:3000/docs
 - A list of all documents.
- GET: http://localhost:3000/docs/1
 - o Details for a document using the document id.
 - There are 100 documents, each with an id.



Step Three: Review starting code

Before you get started with the tutorial, take a minute to review the starting code. If you look at /src/router/index.js, there are two routes set up for Home and Document:

The home view /src/views/Home.vue imports and uses the /src/components/DocumentList component. This component has all the code necessary to render an array of document objects.

The docs array is currently empty, so your first task is to set up a service object and retrieve a list of documents to populate that array.

Step Four: Create document service object

You need a document service object to retrieve a list of documents. Start by creating a new folder under src called services and create a new file called DocsService.js. You'll start by importing axios and setting the baseURL:

```
import axios from 'axios';

const http = axios.create({
   baseURL: "http://localhost:3000"
});
```

Next, you'll export a default object that has a single method called list(). This method uses axios to call the document's Web API and return a Promise:

```
import axios from 'axios';

const http = axios.create({
   baseURL: "http://localhost:3000"
});

export default {

list() {
   return http.get('/docs');
}
```

```
}
```

With the DocsService file in place, you need to use it inside of the document list component. Open up /src/components/DocumentList.vue and import the DocsService that you just created:

```
import docsService from "../services/DocsService";

export default {
    name: "document-list",
    data() {
        return {
            docs: []
        };
    },
    methods: {
        viewDocument(id) {
            this.$router.push(`/document/${id}`);
        }
    }
};
```

Next, use the created() lifecycle hook to call the list() method in DocsService. The list() method returns a promise, and when it resolves, you can set the docs array to the response:

```
import docsService from "../services/DocsService";
export default {
 name: "document-list",
 data() {
   return {
      docs: []
   };
  },
 methods: {
   viewDocument(id) {
      this.$router.push(`/document/${id}`);
    }
  },
 created() {
    docsService.list().then((response) => {
      this.docs = response.data;
   });
  }
};
```

If you visit http://localhost:8080, you should see a list of documents:

My Documents

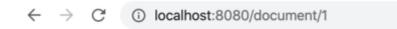
	Document Name	Author	Last Opened by me
	Table architectures multi-byte	Otha Mohr	February 18th 2020
	deposit haptic Games	Manuel Dietrich	February 18th 2020
	e-business Borders Dynamic	Nettie Hudson	February 19th 2020
	matrices granular reciprocal	Gwen Shanahan	February 18th 2020
	Granite Hungary Graphic Interface	Marcelo Stiedemann	February 18th 2020
	intangible Shoes secured line	Mylene West	February 18th 2020
	zero defect client-server generate	Elroy Koss	February 18th 2020
	Cliffs Syrian Pound Small	Kevin O'Kon	February 18th 2020
	South Carolina feed Supervisor	Marian Beier	February 19th 2020
=	Stravenue applications Manager	Misael DuBuque	February 18th 2020
=	Coordinator bandwidth Sweden	Emiliano Jaskolski	February 19th 2020
	Indian Rupee Ngultrum cyan Ball	Rebeca Rolfson	February 19th 2020
	User-friendly Total Rustic Metal Chicken	Alvina Gleichner	February 18th 2020
	synergistic overriding Awesome	Edward McLaughlin	February 18th 2020

If you hover over a table row, you'll notice that it gets highlighted. If you click on the row, the method viewDocument() is called, which uses Vue Router to navigate to the details for that document:

```
viewDocument(id) {
  this.$router.push(`/document/${id}`);
}
```

Step Five: Create method to display document details

If you click on the first document from the home view, you are sent to http://localhost:8080/document/1. Right now, the document detail page has no details:



Document Detail



Return to Documents List

If you look at the router configuration, there's a route that matches that path. This loads the document view /src/views/Document, which uses the /src/components/DocumentDetail component:

```
{
  path: '/document/:id',
  name: 'Document',
  component: Document
}
```

The DocumentDetail component has the functionality to render the details for a document. To render those details, you need to create a new method in your DocsService object and call it from your DocumentDetail

component.

First, open up /src/services/DocsService.js and add a new method that retrieves a single document by its id:

```
import axios from 'axios';

const http = axios.create({
   baseURL: "http://localhost:3000"
});

export default {

   list() {
     return http.get('/docs');
   },

   get(id) {
     return http.get(`/docs/${id}`)
}
```

Next, open up /src/component/DocumentDetail.vue and import the DocsService:

Finally, use the created() method lifecycle hook to call the get() method in DocsService. Set the component's document property equal to the response of the Web API call:

```
import docsService from "../services/DocsService";
export default {
```

```
name: "document-detail",
  data() {
    return {
      document: {
        id: null,
        name: "",
        author: "",
        lastOpened: null,
        content: ""
      }
   };
 },
 created() {
    docsService.get(this.$route.params.id).then((response) => {
      this.document = response.data;
    });
 }
};
```

If you run the application, you should be able to see the list documents and then click on one to view the details for that document:

Document Detail

Table architectures multi-byte

Author: Otha Mohr | Last Opened by Me: February 18th 2020

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Return to Documents List

Congratulations, you just hooked up your first Web API to a Vue application.

Summary

In this tutorial, you learned how to:

- Make an HTTP GET request to a Web API using the Axios library.
- Handle the response (Promise) of a Web API request.
- Build a service object for interacting with a Web API.
- Use the created() lifecycle hook to call a Web API and retrieve data when the view is rendered.