

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.

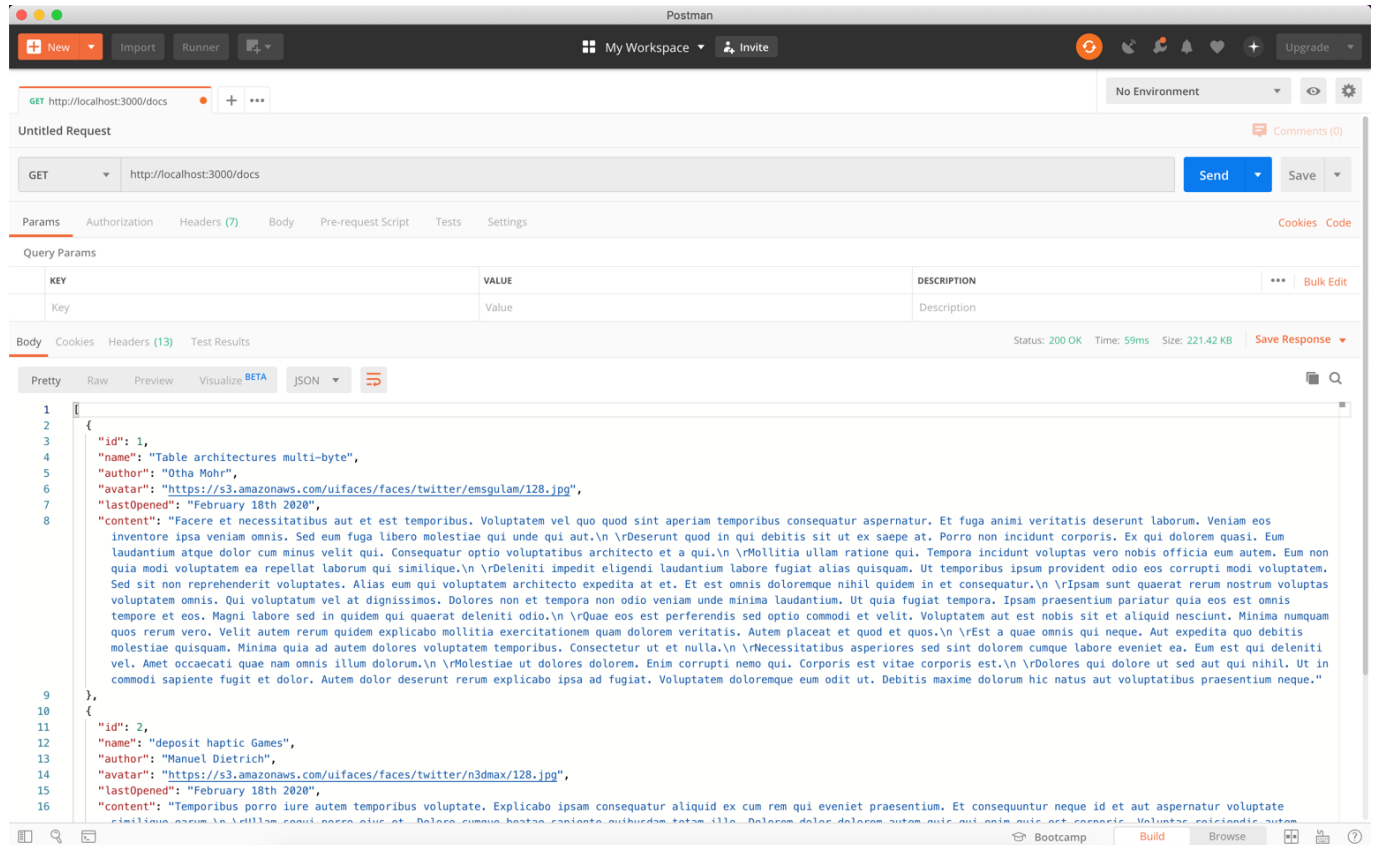
Step One: Run the project

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`
 - 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`:

```
const routes = [
  {
    path: '/',
    name: 'Home',
    component: Home
  },
  {
    path: '/document/:id',
    name: 'Document',
    component: 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

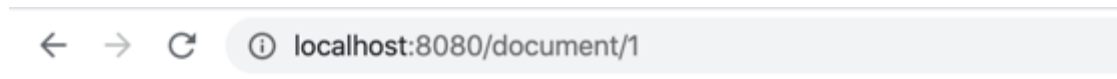
If you hover over a table row, you'll notice that it gets highlighted. If you click on the row, the method `viewDocument()` is called, which uses Vue Router to navigate to the details for that document:

```
<tr v-for="doc in docs" :key="doc.id" v-on:click="viewDocument(doc.id)">
```

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

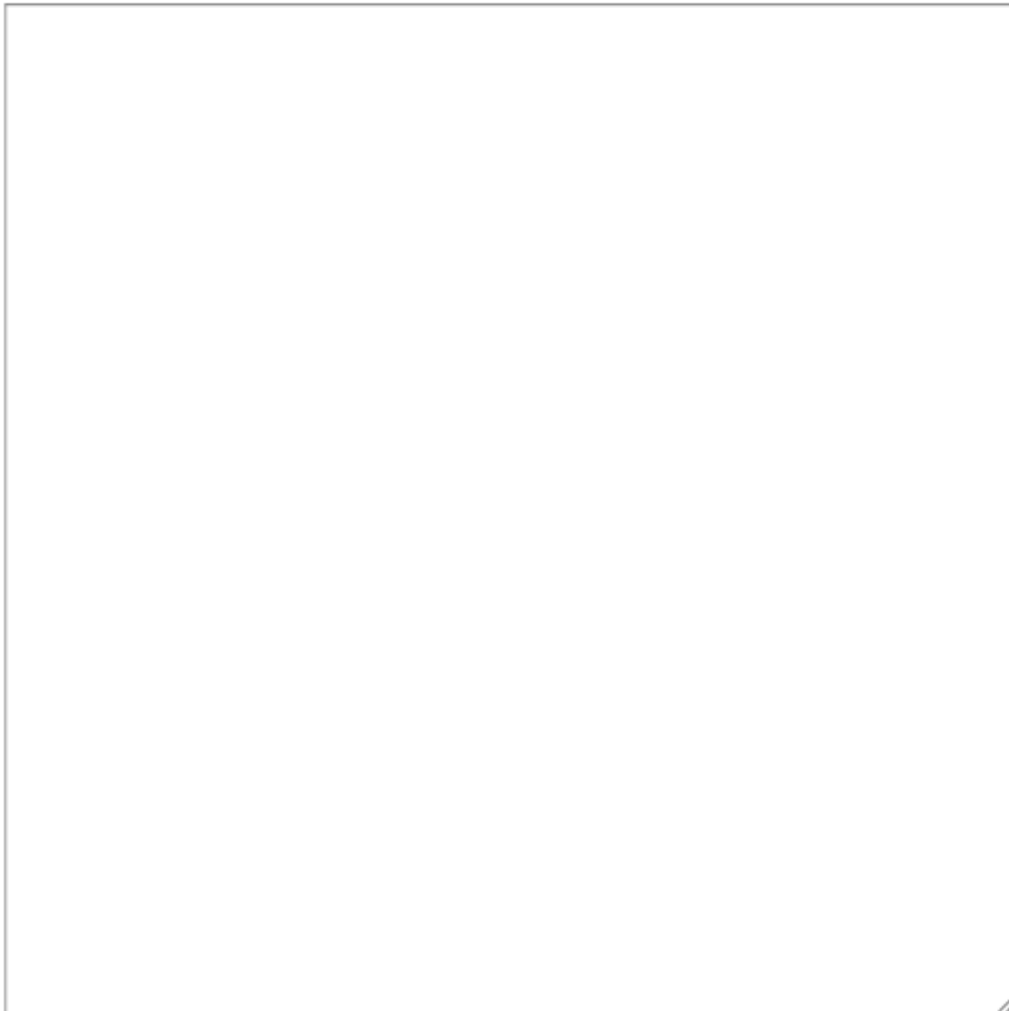
Step Five: Create method to display document details

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

Author: | Last Opened by Me:



[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`:

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

export default {
  name: "document-detail",
  data() {
    return {
      document: {
        id: null,
        name: "",
        author: "",
        lastOpened: null,
        content: ""
      }
    };
  }
};
```

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.