

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.

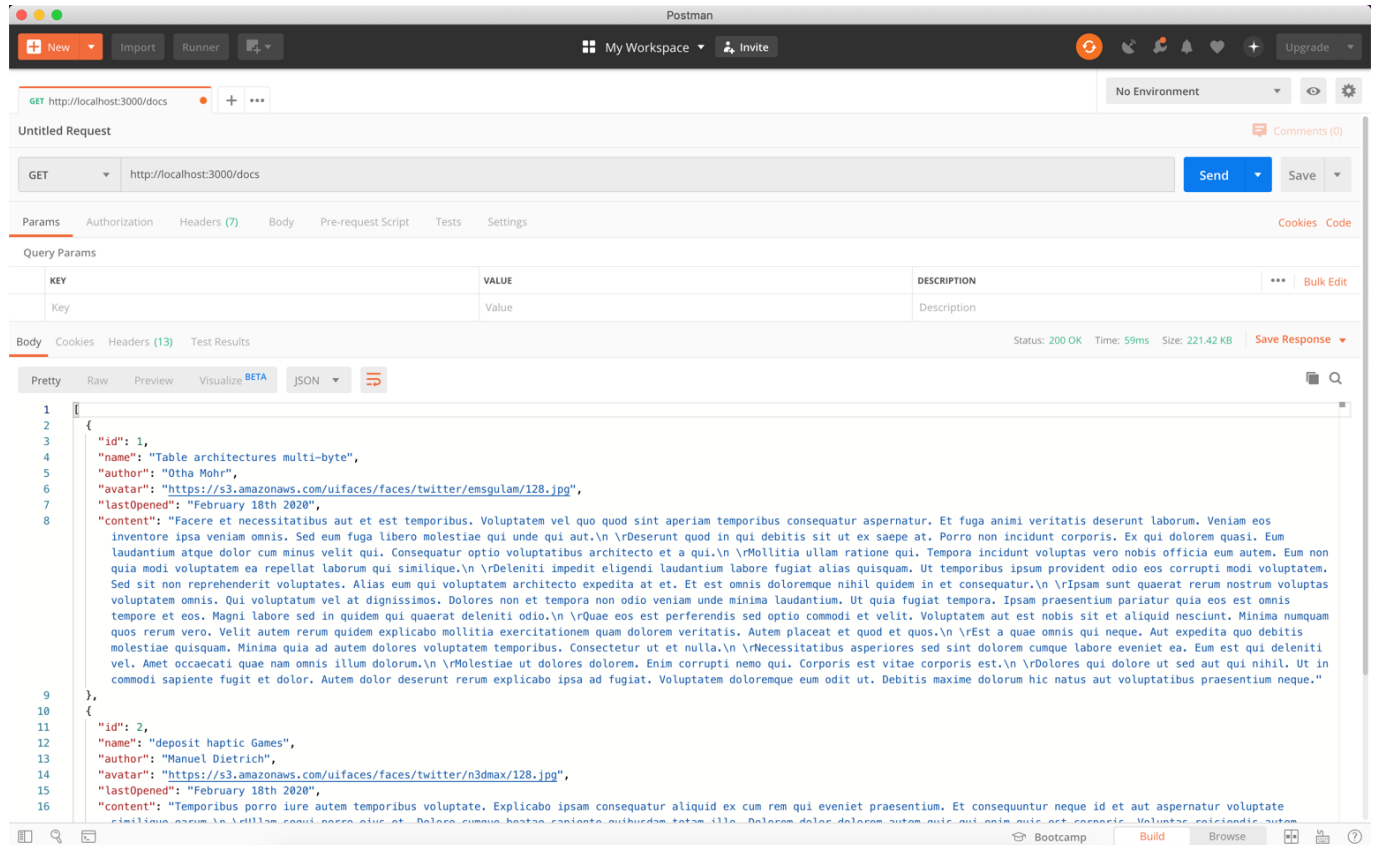
Step One: Run the project

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 |

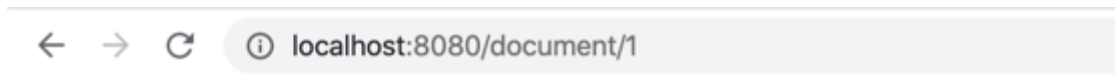
If you hover over a table row, you'll notice that it gets highlighted. If you click on the row, the method `viewDocument()` is called, which uses Vue Router to navigate to the details for that document:

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

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

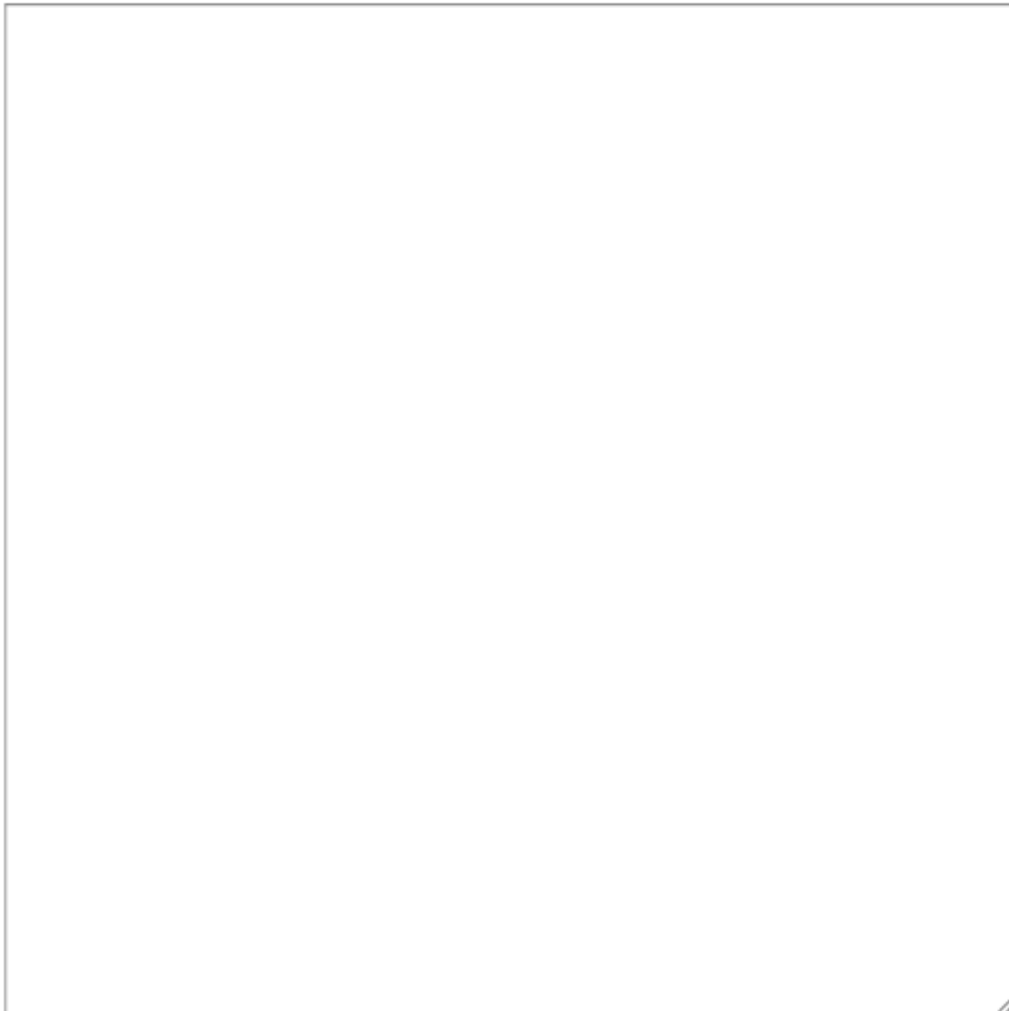
Step Five: Create method to display document details

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.