Client-Side Implementation

6.170 Recitation 4
Last Week: Server-Side URL Shortener
Step 0: Set up

Install Vue CLI

```bash
npm i -g @vue/cli
```

Clone the repository

```bash
https://github.mit.edu/6170-fa18/url-shortner-starter-code
```

Install Dependencies

```bash
npm i
```

Build the project

```bash
npm run build
```
Step 1: Try It Out!

Start the app with `npm start`.

Go to `localhost:3000` in your browser.

Create a short link named `google` pointing to `https://google.com`.

Go to `localhost:3000/google` and see what happens!
Step 2: Examine the Code

<table>
<thead>
<tr>
<th>File Path</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>src/App.vue</td>
<td>Base component</td>
</tr>
<tr>
<td>src/components/CreateShortForm.vue</td>
<td>Allows users to create a short</td>
</tr>
<tr>
<td>src/components/ShortList.vue</td>
<td>Displays a list of shorts</td>
</tr>
<tr>
<td>src/components/ShortListItem.vue</td>
<td>Displays the content of a short</td>
</tr>
</tbody>
</table>
Step 3: View All Shorts

1. In ShortList.vue, implement the `loadShorts` function using axios. 
   **Hint:** Refer to `routes/shorts.js` for the API

2. In the template section, render a list of `ShortListItem` components if there are any. Otherwise, indicate that there are no shorts to display. 
   **Hints:** [https://vuejs.org/v2/guide/conditional.html#v-if](https://vuejs.org/v2/guide/conditional.html#v-if)  
   [https://vuejs.org/v2/guide/list.html#v-for-with-a-Component](https://vuejs.org/v2/guide/list.html#v-for-with-a-Component)
Communication among Components

Parent Component

Child Component

Child Component
Step 4: Refresh Shorts after creating one

1. Emit an event after successfully creating a Short
   **Hint:** `eventBus.$emit(eventName, [...args] )`

2. Update the list of Shorts upon receiving the event from part 1
   **Hint:** `eventBus.$on(eventName, callback)`

References:

- Blog post about sibling component communication in Vue.js
  [https://vegibit.com/vue-sibling-component-communication/](https://vegibit.com/vue-sibling-component-communication/)
- Vue.js’ Custom Events Guide
  [https://vuejs.org/v2/guide/components-custom-events.html](https://vuejs.org/v2/guide/components-custom-events.html)
Step 5: More Things to Try, or At Least Think About

1. Allow users to update and delete shorts
   a. Add elements to the ShortListItem template for the user to interact with
   b. Implement `updateShort` and `deleteShort` methods in ShortListItem
   c. Use events to propagate success and error messages to ShortList

2. Allow users to sign in and out

3. Hide UI elements for actions the user does not have permission to do