

**BỘ GIÁO DỤC VÀ ĐÀO TẠO
TRƯỜNG ĐẠI HỌC CẦN THƠ
TRƯỜNG CÔNG NGHỆ THÔNG TIN VÀ TRUYỀN THÔNG**
-----❖-----



Phát triển ứng dụng Web

Báo cáo thực hành

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CHƯƠNG II: Ứng dụng Contactbook – Frontend – 3+4

1. Bước 1: Tạo ứng dụng Vue

```
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend> npm init vue@3
Need to install the following packages:
create-vue@3.10.4
Ok to proceed? (y) y

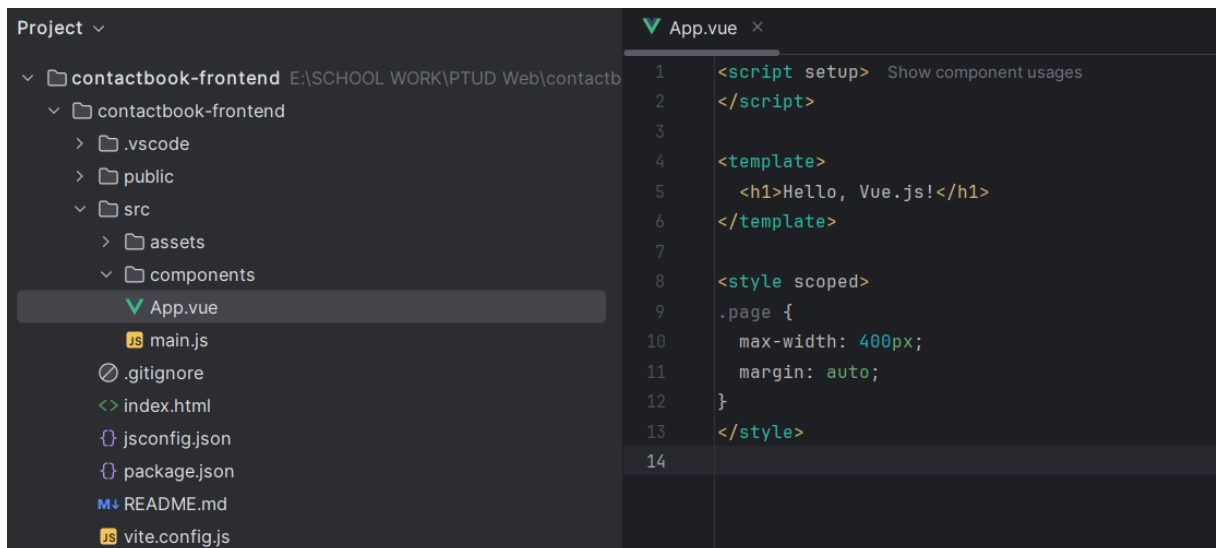
Vue.js - The Progressive JavaScript Framework

✔ Project name: ... contactbook-frontend
✔ Add TypeScript? ... No / Yes
✔ Add JSX Support? ... No / Yes
✔ Add Vue Router for Single Page Application development? ... No / Yes
✔ Add Pinia for state management? ... No / Yes
✔ Add Vitest for Unit Testing? ... No / Yes
✔ Add an End-to-End Testing Solution? » No
✔ Add ESLint for code quality? ... No / Yes
✔ Add Vue DevTools 7 extension for debugging? (experimental) ... No / Yes

Scaffolding project in E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend...

Done. Now run:

  cd contactbook-frontend
  npm install
  npm run dev
```



Hiệu chỉnh vite.config.js:

```

4   import vue from '@vitejs/plugin-vue'
5
6   // https://vitejs.dev/config/
7   export default defineConfig({ no usages
8     plugins: [
9       vue(),
10    ],
11    resolve: {
12      alias: {
13        '@': fileURLToPath(new URL('./src', import.meta.url))
14      }
15    },
16    server: {
17      port: 3001,
18    }
19  })

```

Cài đặt các phụ thuộc và chạy kiểm tra:

```

PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> npm i

added 31 packages, and audited 32 packages in 16s

4 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> npm run dev

> contactbook-frontend@0.0.0 dev
> vite

VITE v5.4.2  ready in 398 ms

→ Local:   http://localhost:3001/
→ Network: use --host to expose
→ press h + enter to show help

```

2. Bước 2: Quản lý mã nguồn dự án với git và GitHub

Khởi tạo git:

```

PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git init
Reinitialized existing Git repository in E:/SCHOOL WORK/PTUD Web/contactbook-frontend/contactbook-frontend/.git/
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git add -A
warning: in the working copy of '.gitignore', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of '.vscode/extensions.json', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'README.md', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'index.html', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'jsconfig.json', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'package-lock.json', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'package.json', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'src/App.vue', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'src/assets/base.css', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'src/assets/logo.svg', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'src/assets/main.css', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'src/main.js', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'vite.config.js', LF will be replaced by CRLF the next time Git touches it

```

```

PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git commit -m "projet initialization"
[master (root-commit) 71863f9] projet initialization
14 files changed, 1274 insertions(+)
create mode 100644 .gitignore
create mode 100644 .vscode/extensions.json
create mode 100644 README.md
create mode 100644 index.html
create mode 100644 jsconfig.json
create mode 100644 package-lock.json
create mode 100644 package.json
create mode 100644 public/favicon.ico
create mode 100644 src/App.vue
create mode 100644 src/assets/base.css
create mode 100644 src/assets/logo.svg
create mode 100644 src/assets/main.css
create mode 100644 src/main.js
create mode 100644 vite.config.js

```

Tạo dự án trên GitHub và thêm remote vào dự án cục bộ:

```

PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git remote add origin https://github.com/phaspez/contactbook-frontend.git
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git push origin master
Enumerating objects: 20, done.
Counting objects: 100% (20/20), done.
Delta compression using up to 8 threads
Compressing objects: 100% (17/17), done.
Writing objects: 100% (20/20), 11.85 KiB | 3.95 MiB/s, done.
Total 20 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/phaspez/contactbook-frontend.git
 * [new branch]      master -> master

```

3. Bước 3: Tạo lớp dịch vụ lấy dữ liệu từ server

Cài đặt axios:

```

PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> npm i axios

added 9 packages, and audited 41 packages in 6s

5 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

```

Tạo tệp tin src/services/api.service.js:

```
App.vue vite.config.js x JS api.service.js x
1 import axios from "axios";
2
3 const commonConfig :{headers:{...}} = {
4   headers: {
5     "Content-Type": "application/json",
6     Accept: "application/json",
7   }
8 };
9
10 export default (baseUrl) :void => { no usages new *
11   axios.create({
12     baseUrl,
13     ...commonConfig
14   });
15 };
```

Tạo tệp tin src/services/contact.service.js:

```
App.vue JS vite.config.js JS api.service.js JS contact.service.js x
1 import createApiClient from "../api.service";
2 class ContactService { Show usages new *
3   constructor(baseUrl :string = "/api/contacts") { Show usages new *
4     this.api = createApiClient(baseUrl);
5   }
6   async getAll() :Promise<any> { no usages new *
7     return (await this.api.get("/")).data;
8   }
9   async create(data) :Promise<any> { no usages new *
10    return (await this.api.post("/", data)).data;
11  }
12  async deleteAll() :Promise<any> { no usages new *
13    return (await this.api.delete("/")).data;
14  }
15  async get(id) :Promise<any> { Show usages new *
16    return (await this.api.get(`/ ${id}`)).data;
17  }
18  async update(id, data) :Promise<any> { no usages new *
19    return (await this.api.put(`/ ${id}`, data)).data;
20  }
21  async delete(id) :Promise<any> { Show usages new *
22    return (await this.api.delete(`/ ${id}`)).data;
23  }
24 }
25 export default new ContactService();| no usages new *
```

Chỉnh vite.config.js:

```
App.vue vite.config.js x api.service.js contact.service.js
6 // https://vitejs.dev/config/
7 export default defineConfig( config: { no usages Phaspez *
8   plugins: [
9     vue(),
10  ],
11  resolve: {
12    alias: {
13      '@': fileURLToPath(new URL('./src', import.meta.url))
14    }
15  },
16  server: {
17    port: 3001,
18  },
19  proxy: {
20    "/api": {
21      target: "http://localhost:3000",
22      changeOrigin: true,
23    },
24  }
25 })
26
```

4. Bước 4: Cài đặt trang hiển thị danh sách các liên hệ

Cài đặt các thư viện cần thiết:

```
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> npm i bootstrap jquery popper.js @fortawesome/fontawesome-free
npm WARN deprecated popper.js@1.16.1: You can find the new Popper v2 at @popperjs/core, this package is dedicated to the legacy v1

added 5 packages, and audited 46 packages in 10s

8 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```

Chỉnh src/main.js:

```
App.vue main.js x vite.config.js api.service.js contact.service.js
1 import './assets/main.css'
2 import "bootstrap/dist/css/bootstrap.min.css";
3 import "@fortawesome/fontawesome-free/css/all.min.css";
4 import { createApp } from 'vue'
5 import App from './App.vue'
6
7 createApp(App).mount( rootContainer: '#app')
8
```

Cài đặt vue-router:

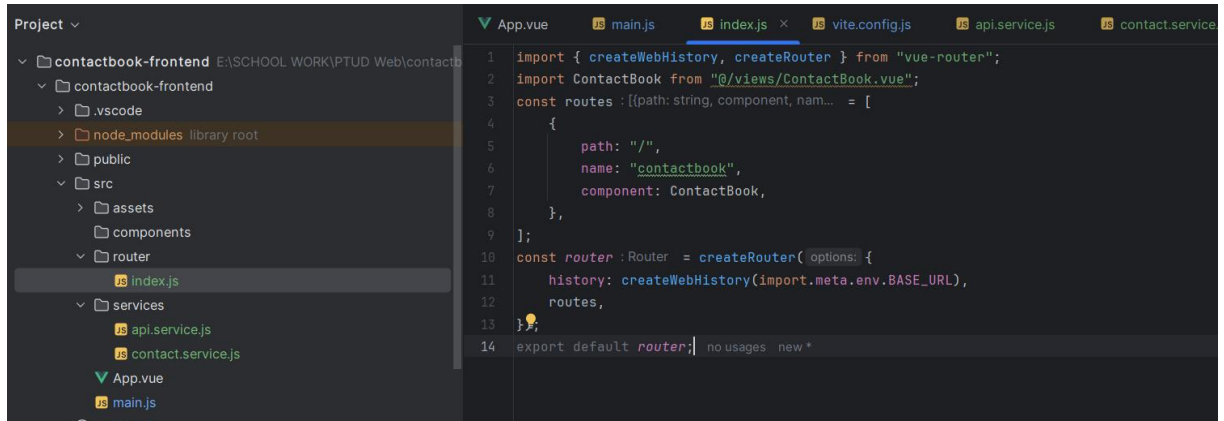
```
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> npm i vue-router

added 2 packages, and audited 48 packages in 2s

9 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```


Tạo tập tin src/router/index.js:



The screenshot shows the VS Code interface with the file explorer on the left and the code editor on the right. The file explorer shows the project structure with a new file 'index.js' created in the 'router' folder. The code editor shows the content of 'index.js'.

```
1 import { createWebHistory, createRouter } from "vue-router";
2 import ContactBook from "@views/ContactBook.vue";
3 const routes : [{path: string, component, nam...} = [
4
5     {
6       path: "/",
7       name: "contactbook",
8       component: ContactBook,
9     },
10 ];
11 const router : Router = createRouter({options: {
12   history: createWebHistory(import.meta.env.BASE_URL),
13   routes,
14 }});
15 export default router;
```

Thêm router vào ứng dụng:



The screenshot shows the VS Code interface with the code editor displaying the 'main.js' file. The code imports the router and uses it in the Vue application.

```
1 import './assets/main.css'
2 import "bootstrap/dist/css/bootstrap.min.css";
3 import "@fortawesome/fontawesome-free/css/all.min.css";
4 import { createApp } from 'vue'
5 import App from './App.vue'
6 import router from "./router/index.js";
7
8 createApp(App)
9   .use(router)
10  .mount( rootContainer: '#app')
```

Tạo thành phần InputSearch:


```

1 <script> Show component usages
2 export default { no usages new *
3   props: {
4     modelValue: { type: String, default: "" },
5   },
6   emits: ["submit", "update:modelValue"],
7   methods: {
8     updateModelValue(e) {
9       this.$emit( event: "update:modelValue", e.target.value);
10    },
11    submit() {
12      this.$emit( event: "submit");
13    },
14  },
15 };
16 </script>
17
18 <template>
19   <div class="input-group">
20     <input
21       type="text"
22       class="form-control"
23       placeholder="Nhập thông tin cần tìm"
24       :value="modelValue"
25       @input="updateModelValue"
26       @keyup.enter="submit"
27     />
28     <div class="input-group-append">
29
30     <button
31       class="btn btn-outline-secondary"
32       type="button"
33       @click="submit"
34     >
35       <i class="fas fa-search"></i> Tìm kiếm
36     </button>
37   </div>
38 </div>
39 </template>

```

Tạo thành phần ContactList:

```

1 <script> Show component usages
2 export default { no usages new *
3   props: {
4     contacts: { type: Array, default: [] },
5     activeIndex: { type: Number, default: -1 },
6   },
7   emits: ["update:activeIndex"],
8   methods: {
9     updateActiveIndex(index) {
10       this.$emit( event: "update:activeIndex", index);
11     }
12   }
13 };
14 </script>
15 <template>
16   <ul class="list-group">
17     <li
18       class="list-group-item"
19       v-for="(contact, index) in contacts"
20       :key="contact._id"
21       :class="{ active: index === activeIndex }"
22       @click="updateActiveIndex(index)"
23     >
24       {{ contact.name }}
25     </li>
26   </ul>
27 </template>

```

Tạo thành phần ContactCard:

```

1 <script> Show component usages
2 </script>
3 <template>
4   <div>
5     <div class="p-1">
6       <strong>Tên:</strong>
7       {{ contact.name }}
8     </div>
9     <div class="p-1">
10      <strong>E-mail:</strong>
11      {{ contact.email }}
12    </div>
13    <div class="p-1">
14      <strong>Địa chỉ:</strong>
15      {{ contact.address }}
16    </div>
17    <div class="p-1">
18      <strong>Điện thoại:</strong>
19      {{ contact.phone }}
20    </div>
21    <div class="p-1">
22      <strong>Liên hệ yêu thích:</strong>
23      <i v-if="contact.favorite" class="fas fa-check"></i>
24      <i v-else class="fas fa-times"></i>
25    </div>
26  </div>
27 </template>

```

Tạo thành phần ContactBook:

```

App.vue main.js InputSearch.vue ContactList.vue ContactCard.vue ContactBook.vue x
1 <template> Show component usages
2 <div class="page row">
3   <div class="col-md-18">
4     <InputSearch v-model="searchText" />
5   </div>
6   <div class="mt-3 col-md-6">
7     <h4>
8       Danh bạ
9       <i class="fas fa-address-book"></i>
10    </h4>
11    <ContactList
12      v-if="filteredContactsCount > 0"
13      :contacts="filteredContacts"
14      v-model:activeIndex="activeIndex"
15    />
16    <p v-else>Không có liên hệ nào.</p>
17    <div class="mt-3 row justify-content-around align-items-center">
18      <button class="btn btn-sm btn-primary" @click="refreshList()">
19        <i class="fas fa-redo"></i> Làm mới
20      </button>
21      <button class="btn btn-sm btn-success" @click="goToAddContact">
22        <i class="fas fa-plus"></i> Thêm mới
23      </button>
24      <button
25        class="btn btn-sm btn-danger"
26        @click="removeAllContacts"
27      >
28        <i class="fas fa-trash"></i> Xóa tất cả
29      </button>
30    </div>
31  </div>

```

```

1 <template> Show component usages
2 <div class="page row">
6   <div class="mt-3 col-md-6">
17     <div class="mt-3 row justify-content-around align-items-center">
29       </button>
30     </div>
31   </div>
32   <div class="mt-3 col-md-6">
33     <div v-if="activeContact">
34       <h4>
35         Chi tiết Liên hệ
36         <i class="fas fa-address-card"></i>
37       </h4>
38       <ContactCard :contact="activeContact" />
39     </div>
40   </div>
41 </div>
42 </template>
43 <script>
44 import ContactCard from "@components/ContactCard.vue";
45 import InputSearch from "@components/InputSearch.vue";
46 import ContactList from "@components/ContactList.vue";
47 import ContactService from "@services/contact.service";
48 > export default [ 5 elements... ];
117 </script>
118 <style scoped>
119 .page {
120   text-align: left;
121   max-width: 750px;
122 }
123 </style>

```

Cập nhật ContactBook:

```

43 <script>
44 import ContactCard from "@/components/ContactCard.vue";
45 import InputSearch from "@/components/InputSearch.vue";
46 import ContactList from "@/components/ContactList.vue";
47 import ContactService from "@/services/contact.service";
48 export default {
49   components: {
50     ContactCard,
51     InputSearch,
52     ContactList,
53     data() {
54       return {
55         contacts: [],
56         activeIndex: -1,
57         searchText: "",
58       };
59     },
60   },
61   watch: {
62     searchText() {
63       this.activeIndex = -1;
64     },
65   },
66   computed: {
67     contactStrings() {
68       return this.contacts.map((contact) => {
69         const { name, email, address, phone } = contact;
70         return [name, email, address, phone].join("");
71       });
72     },
73     filteredContacts() {
74       if (!this.searchText) return this.contacts;
75       return this.contacts.filter((_contact, index) =>
76         this.contactStrings[index].includes(this.searchText)
77       );
78     },
79     activeContact() {
80       if (this.activeIndex < 0) return null;
81       return this.filteredContacts[this.activeIndex];
82     },
83     filteredContactsCount() {
84       return this.filteredContacts.length;
85     },
86   },
87   methods: {
88     async retrieveContacts() {
89       try {
90         this.contacts = await ContactService.getAll();
91       } catch (error) {
92         console.log(error);
93       }
94     },
95     refreshList() {
96       this.retrieveContacts();
97       this.activeIndex = -1;
98     },
99     async removeAllContacts() {
100       if (confirm("Bạn muốn xóa tất cả Liên hệ?")) {

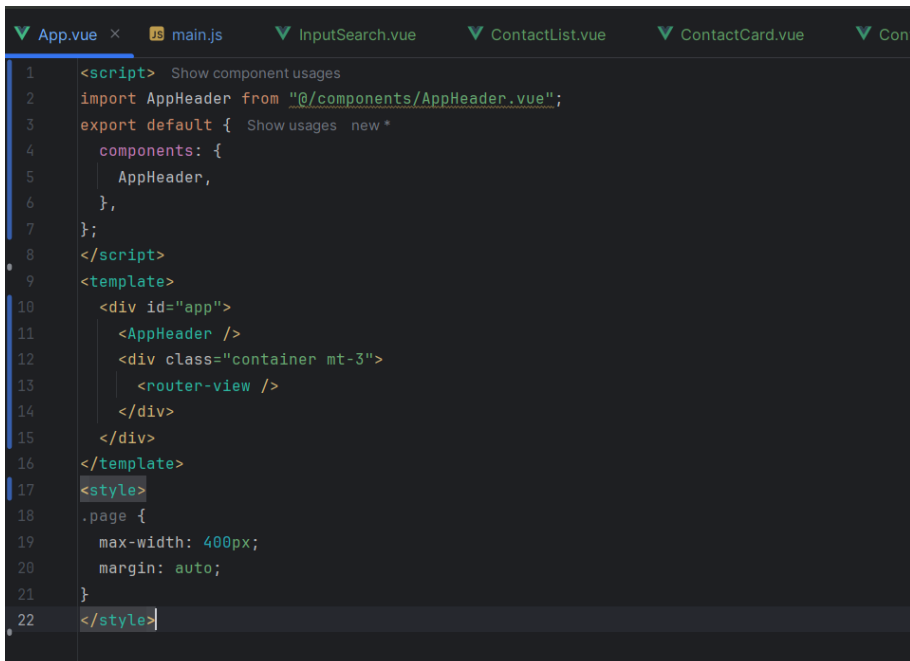
```

```

101         try {
102             await ContactService.deleteAll();
103             this.refreshList();
104         } catch (error) {
105             console.log(error);
106         }
107     },
108 },
109     goToAddContact() {
110         this.$router.push({ name: "contact.add" });
111     },
112 },
113     mounted() {
114         this.refreshList();
115     },
116 };
117 </script>
118 <style scoped>
119 .page {
120     text-align: left;
121     max-width: 750px;

```

Tập tin src/App.vue chứa định nghĩa cho component gốc của ứng dụng:

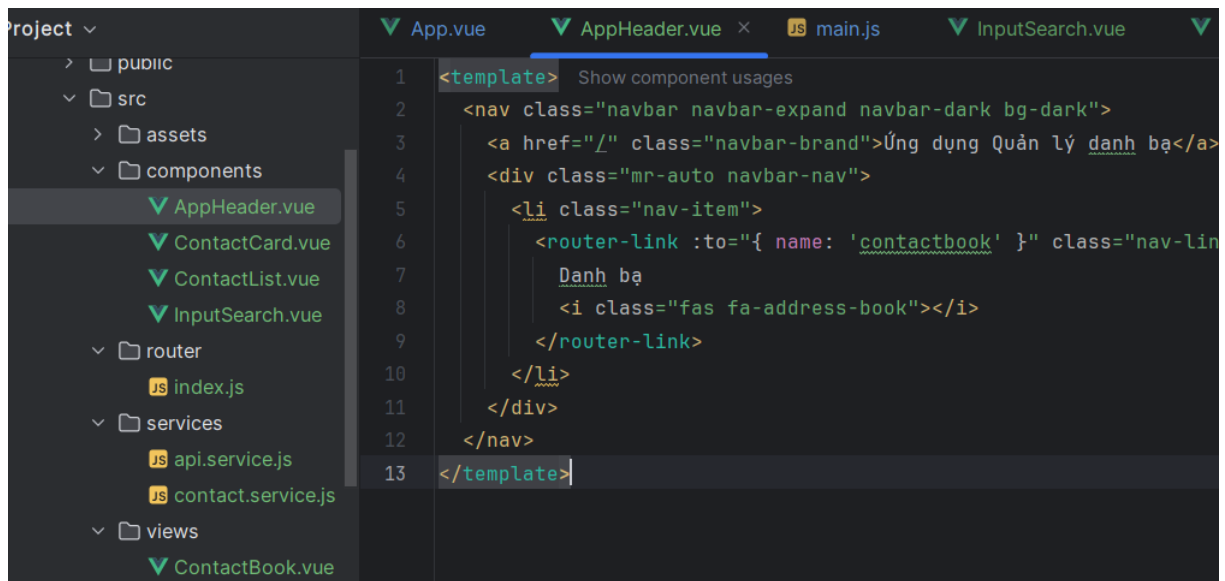


```

1 <script> Show component usages
2 import AppHeader from "@components/AppHeader.vue";
3 export default { Show usages new *
4     components: {
5         AppHeader,
6     },
7 };
8 </script>
9 <template>
10     <div id="app">
11         <AppHeader />
12         <div class="container mt-3">
13             <router-view />
14         </div>
15     </div>
16 </template>
17 <style>
18 .page {
19     max-width: 400px;
20     margin: auto;
21 }
22 </style>

```

Thành phần AppHeader (src/components/AppHeader.vue) định nghĩa thanh điều hướng toàn cục của ứng dụng:



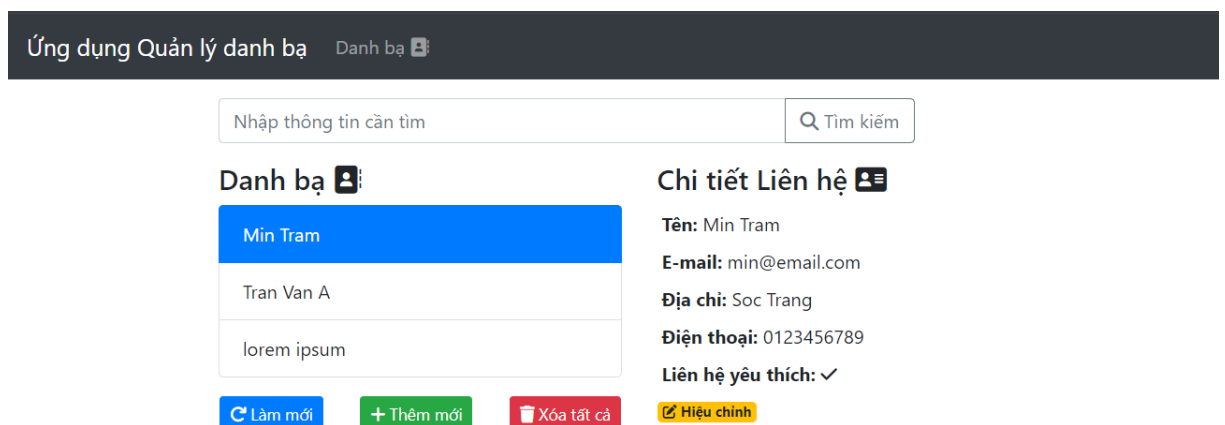
Chạy ứng dụng Vue:

```
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> npm run dev

> contactbook-frontend@0.0.0 dev
> vite

VITE v5.4.2 ready in 401 ms

➔ Local:   http://localhost:3001/
➔ Network: use --host to expose
➔ press h + enter to show help
```



Lưu thay đổi vào git và GitHub:

```

PS E:\SCH00L WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git add -u
warning: in the working copy of 'package-lock.json', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'package.json', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'src/App.vue', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'src/main.js', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'vite.config.js', LF will be replaced by CRLF the next time Git touches it
PS E:\SCH00L WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git add src/components/ src/router/ src/services/ src/views/
PS E:\SCH00L WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git commit -m "Display contacts received from the server"
[master a17031d] Display contacts received from the server
13 files changed, 490 insertions(+), 12 deletions(-)
create mode 100644 src/components/AppHeader.vue
create mode 100644 src/components/ContactCard.vue
create mode 100644 src/components/ContactList.vue
create mode 100644 src/components/InputSearch.vue
create mode 100644 src/router/index.js
create mode 100644 src/services/api.service.js
create mode 100644 src/services/contact.service.js
create mode 100644 src/views/ContactBook.vue

```

```

PS E:\SCH00L WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git push origin master
Enumerating objects: 27, done.
Counting objects: 100% (27/27), done.
Delta compression using up to 8 threads
Compressing objects: 100% (18/18), done.
Writing objects: 100% (20/20), 6.70 KiB | 2.23 MiB/s, done.
Total 20 (delta 4), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (4/4), completed with 4 local objects.
To https://github.com/phaspez/contactbook-frontend.git
71863f9..a17031d master -> master

```

5. Bước 5: Tạo trang lỗi 404 không tìm thấy trang

Thêm định nghĩa route khớp với tất cả các URL:

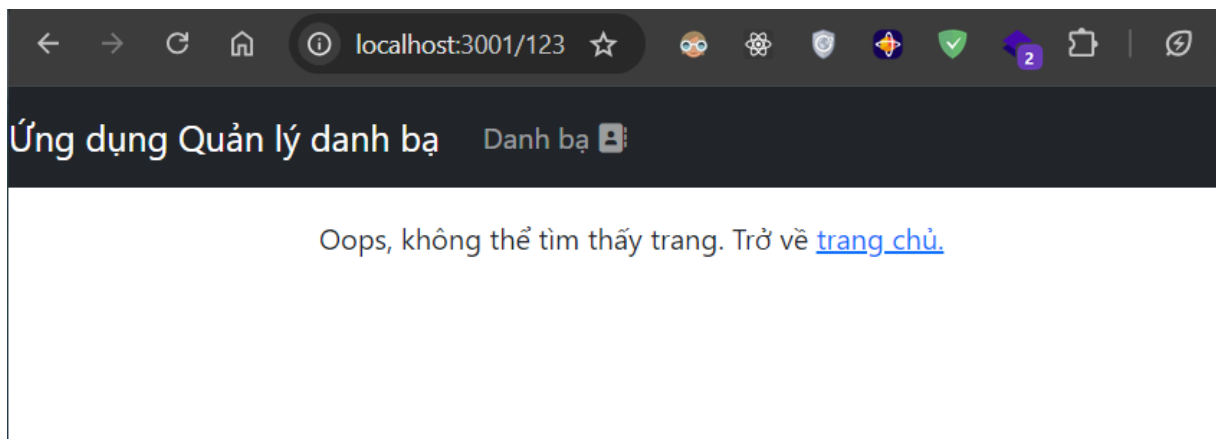
```

JS main.js  InputSearch.vue  ContactBook.vue  JS index.js  NotFound.vue
1  import { createWebHistory, createRouter } from "vue-router";
2  import ContactBook from "@views/ContactBook.vue";
3  const routes : [{path: string, component: {co... = [
4      {
5          path: "/",
6          name: "contactbook",
7          component: ContactBook,
8      },
9      {
10         path: "/*",
11         name: "notFound",
12         component: () : Promise<{...}> => import ("@views/NotFound.vue"),
13     }
14 ];
15 const router : Router = createRouter( options: {
16     history: createWebHistory(import.meta.env.BASE_URL),
17     routes,
18 } );
19 export default router;

```

```
JS main.js InputSearch.vue ContactBook.vue index.js NotFound.vue x
1 <template> Show component usages
2   <div class="page">
3     <p>
4       Oops, không thể tìm thấy trang. Trở về
5       <router-link to="/">trang chủ.</router-link>
6     </p>
7   </div>
8 </template>
```

Kiểm tra URL không tồn tại:



Lưu các thay đổi vào GitHub:

```
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git add src/router/index.js src/views/NotFound.vue
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git commit -m "Create 404 page"
[master 10aa9d0] Create 404 page
2 files changed, 13 insertions(+)
create mode 100644 src/views/NotFound.vue
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git push origin master
Enumerating objects: 12, done.
Counting objects: 100% (12/12), done.
Delta compression using up to 8 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (7/7), 757 bytes | 378.00 KiB/s, done.
Total 7 (delta 3), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (3/3), completed with 3 local objects.
To https://github.com/phaspez/contactbook-frontend.git
a17031d..10aa9d0 master -> master
```

6. Bước 6: Tạo form để thêm hoặc cập nhật liên hệ

Cài đặt thư viện vee-validate và yup:

```
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> npm i vee-validate yup

added 7 packages, and audited 55 packages in 4s

11 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```


Copy file form.css và tạo tập tin ContactForm.vue trong src/components:

```
main.js InputSearch.vue ContactBook.vue form.css ContactForm.vue x vite.config.js package.json
1 <template> Show component usages
2 <Form @submit="submitContact" :validation-schema="contactFormSchema">
3   <div class="form-group">
4     <label for="name">Tên</label>
5     <Field name="name" type="text" class="form-control" v-model="contactLocal.name" />
6     <ErrorMessage name="name" class="error-feedback" />
7   </div>
8   <div class="form-group">
9     <label for="email">E-mail</label>
10    <Field name="email" type="email" class="form-control" v-model="contactLocal.email" />
11    <ErrorMessage name="email" class="error-feedback" />
12  </div>
13  <div class="form-group">
14    <label for="address">Địa chỉ</label>
15    <Field name="address" type="text" class="form-control" v-model="contactLocal.address" />
16    <ErrorMessage name="address" class="error-feedback" />
17  </div>
18  <div class="form-group">
19    <label for="phone">Điện thoại</label>
20    <Field name="phone" type="tel" class="form-control" v-model="contactLocal.phone" />
21    <ErrorMessage name="phone" class="error-feedback" />
22  </div>
23  <div class="form-group form-check">
24    <input name="favorite" type="checkbox" class="form-check-input" v-model="contactLocal.favorite" />
25    <label for="favorite" class="form-check-label">
26      <strong>Liên hệ yêu thích</strong>
27    </label>
28  </div>
29  <div class="form-group">
30    <button class="btn btn-primary">Lưu</button>
31    <button v-if="contactLocal.id" type="button" class="ml-2 btn btn-danger" @click="deleteContact">
32      Xóa
33    </button>
34    <button type="button" class="ml-2 btn btn-danger" @click="Cancel">
35      Thoát
36    </button>
37  </div>
38 </Form>
39 </template>
```

```

40 <script>
41 import * as yup from "yup";
42 import { Form, Field, ErrorMessage } from "vee-validate";
43 export default { no usages new *
44   components: {
45     Form,
46     Field,
47     ErrorMessage,
48   },
49   emits: ["submit:contact", "delete:contact"],
50   props: {
51     contact: { type: Object, required: true }
52   },
53   data() {
54     const contactFormSchema = yup.object().shape( additions: {
55       name: yup
56         .string()
57         .required( msg: "Tên phải có giá trị." )
58         .min( min: 2, message: "Tên phải ít nhất 2 ký tự." )
59         .max( max: 50, message: "Tên có nhiều nhất 50 ký tự." ),
60       email: yup
61         .string()
62         .email( "E-mail không đúng." )
63         .max( max: 50, message: "E-mail tối đa 50 ký tự." ),
64       address: yup.string().max( max: 100, message: "Địa chỉ tối đa 100 ký tự." ),
65       phone: yup
66         .string()
67         .matches(
68           regex: /((09|03|07|08|05)+([0-9]{8})\b)/g,
69           options: "Số điện thoại không hợp lệ."
70         ),
71     });
72     return {
73       // Chúng ta sẽ không muốn hiệu chỉnh props, nên tạo biến cục bộ
74       // contactLocal để liên kết với các input trên form
75       contactLocal: this.contact,
76       contactFormSchema,
77     };
78   },
79   methods: {
80     submitContact() {
81       this.$emit( event: "submit:contact", this.contactLocal );
82     },
83     deleteContact() {
84       this.$emit( event: "delete:contact", this.contactLocal.id );
85     },
86     Cancel(){
87       const reply = window.confirm( 'You have unsaved changes! Do you want to leave?' );
88       if (!reply) {
89         // stay on the page if
90         // user clicks 'Cancel'
91         return false
92       }
93       else this.$router.push( { name: "contactbook" } );
94     }
95   },
96 };
97 </script>
98 <style scoped>
99 @import "@/assets/form.css";
100 </style>

```

7. Bước 7: Tạo trang cập nhật liên hệ

Tạo tập tin src/views/ContactEdit.vue:

```

main.js x InputSearch.vue ContactBook.vue form.css ContactForm.vue ContactEdit.vue x vite.config.js
1 <template> Show component usages
2 <div v-if="contact" class="page">
3   <h4>Hiệu chỉnh Liên hệ</h4>
4   <ContactForm :contact="contact" @submit:contact="updateContact"
5     @delete:contact="deleteContact" />
6   <p>{{ message }}</p>
7 </div>
8 </template>
9 <script>
10 import ContactForm from "@components/ContactForm.vue";
11 import ContactService from "@services/contact.service";
12 export default { no usages new *
13   components: {
14     ContactForm,
15   },
16   props: {
17     id: { type: String, required: true },
18   },
19   data() {
20     return {
21       contact: null,
22       message: "",
23     };
24   },
25   methods: {
26     async getContact(id) {
27       try {
28         this.contact = await ContactService.get(id);
29       } catch (error) {
30         console.log(error);
31         // Chuyển sang trang NotFound đồng thời giữ cho URL không đổi
32         this.$router.push({
33           name: "notfound",
34           params: {
35             pathMatch: this.$route.path.split("/").slice(1)
36           },
37           query: this.$route.query,
38           hash: this.$route.hash,
39         });

```

```

40   }
41 },
42 async updateContact(data) {
43   try {
44     await ContactService.update(this.contact._id, data);
45     alert('Liên hệ được cập nhật thành công.');
```

```

46     this.$router.push({ name: "contactbook" });
47   } catch (error) {
48     console.log(error);
49   }
50 },
51 async deleteContact() {
52   if (confirm("Bạn muốn xóa Liên hệ này?")) {
53     try {
54       await ContactService.delete(this.contact._id);
55       this.$router.push({ name: "contactbook" });
56     } catch (error) {
57       console.log(error);
58     }
59   }
60 },
61 },
62 created() {
63   this.getContact(this.id);
64   this.message = "";
65 },
66 };
67 </script>

```

Thêm định nghĩa route đến ContactEdit vào tập tin src/router/index.js:

```
1 import { createWebHistory, createRouter } from "vue-router";
2 import ContactBook from "@views/ContactBook.vue";
3 const routes : [ { path: string, component: co... } ] = [
4   {
5     path: "/",
6     name: "contactbook",
7     component: ContactBook,
8   },
9   {
10    path: "/*",
11    name: "notFound",
12    component: () : Promise<...> => import ("@/views/NotFound.vue"),
13  },
14  {
15    path: "/contacts/:id",
16    name: "contact.edit",
17    component: () : Promise<...> => import ("@/views/ContactEdit.vue"),
18    props: true // truyền các biến trong $route.params vào làm props
19  }
20 ];
21 const router : Router = createRouter( { options: {
22   history: createWebHistory(import.meta.env.BASE_URL),
23   routes,
24 } });
25 export default router; Show usages Phaspez
```

Thêm đường liên kết đến trang hiệu chỉnh từ trang ContactBook:

```
36 </div>
37 </h4>
38 <ContactCard :contact="activeContact" />
39 <router-link :to="{
40   name: 'contact.edit',
41   params: { id: activeContact._id },
42 }">
43   <span class="mt-2 badge badge-warning">
44     <i class="fas fa-edit"></i> Hiệu chỉnh</span>
45   </router-link>
46 </div>
47 </div>
48 </div>
```

Kiểm tra chức năng:

Hiệu chỉnh Liên hệ

Tên

Min Tram

E-mail

min@email.com

Địa chỉ

Soc Trang

Điện thoại

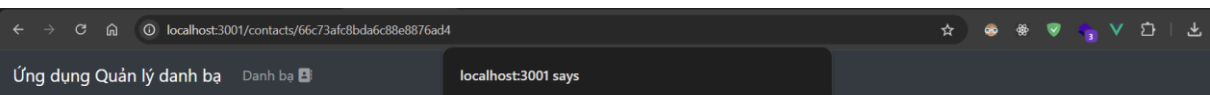
0123456789

☒ Liên hệ yêu thích

Lưu

Xóa

Thoát



Hiệu chỉnh Liên hệ

Tên

Min Tram

E-mail

min@email.com

Địa chỉ

Soc Trang

Điện thoại

0323456789

☒ Liên hệ yêu thích

Lưu

Xóa

Thoát

Lưu các thay đổi trên GitHub:

```
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git add -u
warning: in the working copy of 'package-lock.json', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'package.json', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'src/main.js', LF will be replaced by CRLF the next time Git touches it
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git add src/assets/ src/components/ContactForm.vue src/views/ContactEdit.vue
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git commit -m "Added edit contact page"
[master 0682e80] Added edit contact page
 8 files changed, 288 insertions(+), 3 deletions(-)
 create mode 100644 src/assets/form.css
 create mode 100644 src/components/ContactForm.vue
 create mode 100644 src/views/ContactEdit.vue
PS E:\SCHOOL WORK\PTUD Web\contactbook-frontend\contactbook-frontend> git push origin master
Enumerating objects: 26, done.
Counting objects: 100% (26/26), done.
Delta compression using up to 8 threads
Compressing objects: 100% (14/14), done.
Writing objects: 100% (15/15), 4.60 KiB | 1.53 MiB/s, done.
Total 15 (delta 7), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (7/7), completed with 7 local objects.
To https://github.com/phaspez/contactbook-frontend.git
 10aa9d0..0682e80 master -> master
```

8. Bước 8: Tạo trang thêm mới một liên hệ:

localhost:3001/contacts/add

Ứng dụng Quản lý danh bạ Danh bạ

localhost:3001 says
Liên hệ được tạo thành công.
OK

Thêm Liên hệ mới

Tên
Dipper Pines

E-mail
dipperp@gmail.com

Địa chỉ
California

Điện thoại
0301111112

☒ Liên hệ yêu thích

Lưu Thoát

Ứng dụng Quản lý danh bạ Danh bạ

Nhập thông tin cần tìm

Danh bạ

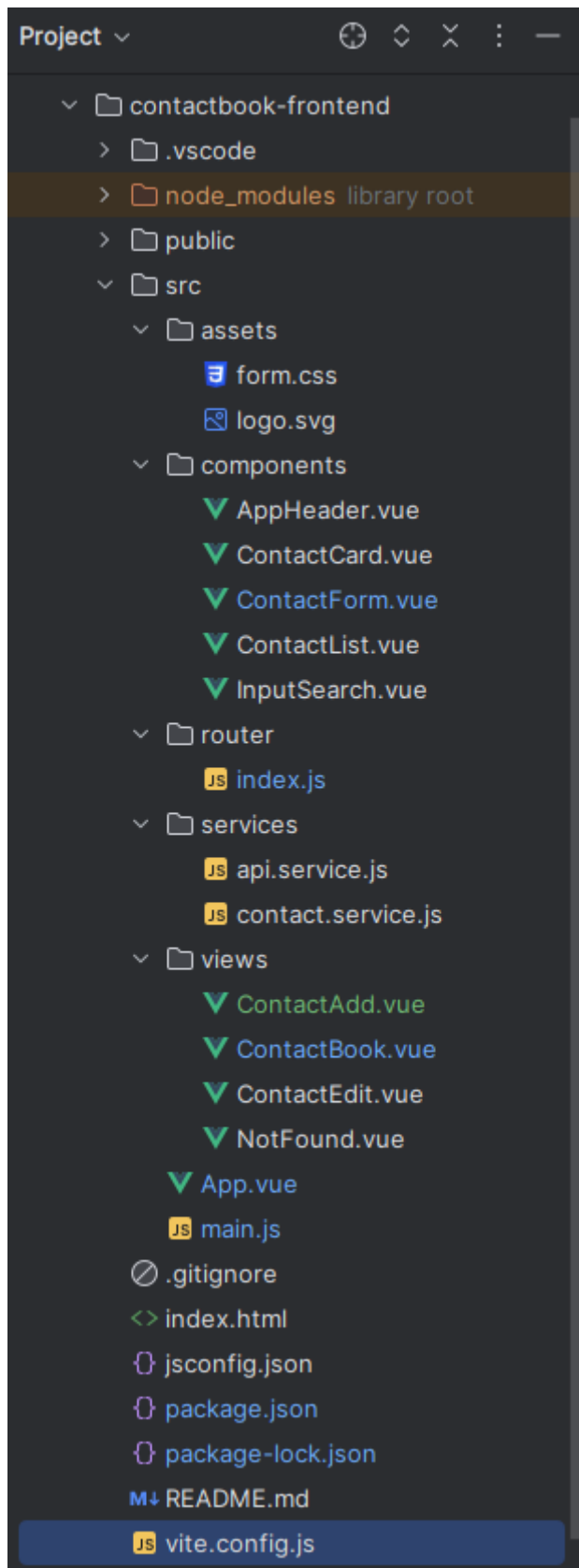
Min Tram
Tran Van A
lorem ipsum
Dipper Pines

Làm mới Thêm mới Xóa tất cả

Chi tiết Liên hệ

Tên: Dipper Pines
E-mail: dipperp@gmail.com
Địa chỉ: California
Điện thoại: 0301111112
Liên hệ yêu thích: ✓
☒ Hiệu chỉnh

Thư mục dự án:



Link GitHub dự án: <https://github.com/phaspez/contactbook-frontend>