

The assignment allowed me to learn the basics of web programming and have a brief insight into real-world software development. It differs from my previous experiences in some ways. Previously, I mostly wrote small pieces of code to be thrown away. However, through this homework, I gained a greater appreciation of the value of code craftsmanship and how existing ideas and tools make things easier (though I doubt I am yet good at it, as demonstrated by my 1000 lines index.html). Furthermore, adding additional features turned out to be more challenging than I expected. I underestimated the efforts needed to put existing libraries together. For example, I still cannot work out how to use the documented callback option on adding chips by Materialize CSS to automatically search for tasks, and nothing I googled resolves it, so I had to cover up by creating a search button instead. I suspect that it has been deprecated. Lastly, in contrast to courses I have taken so far where there are often a syllabus and answers to be discovered, in this more open-ended assignment, I was more initiative in choosing what to delve into and do with my newly-gained knowledge.

## **User manual**

### **Creating a user account:**

To create a new account, click on the SIGN UP tab. Enter your desired username and password. You may then proceed to sign in.

### **Signing in:**

To sign in, switch back to the SIGN IN tab, enter your username and password, and click SIGN IN.

### **Add tasks:**

Click on the ADD NEW TASK button at the top left of the task table. To enter tags, for each tag, type in your tag name, then press ENTER key.

It is recommended to have tags in hyphenated format. For example, this-is-a-tag.

### **View tasks**

The app paginates by 8 tasks per page. On signing in, you will see your latest tasks. To see older tasks, navigate with the PREV and NEXT buttons at the top-right corner of the tasks table.

### **Update task/ Mark task as done/ Delete:**

To update a task, click EDIT and enter the new information. To mark a task as done, click MARK AS DONE. To undo marking as done, click MARK AS DONE again. To delete a task, click DELETE.

### **Filter tasks (local):**

Enter task name and tags. You can only filter by one tag. Click on “Active only” checkbox to see only tasks that are not done.

### **Search all tasks (send requests to the server):**

To search through all tasks, click on the “Search all tasks” checkbox. Enter task name and tags. Search is fired automatically as you type in the name field. Press the SEARCH button if you want to search by tag.

### **Delete user for admin:**

Open Rails console: rails c

Select the user whose name is “test”: `user = User.find_by(username: “test”)`

Delete the desired user: `user.delete`

### **API:**

#### **Sign up:**

POST <http://cvwo-application-ho-si-binh.herokuapp.com/v1/users>

```
{
  "user": {
    "username": "test",
    "password": "12121212"
  }
}
```

#### **Authentication:**

POST <http://cvwo-application-ho-si-binh.herokuapp.com/v1/auth>

Body:

```
{"username": "test", "password": "12121212"}
```

You will get a response of form

```
{
  "id": 5,
  "token":
    "eyJhbGciOiJIUzI1NiJ9.eyJ1c2VyX2lkIjo1LCJleHAiOjE1ODEzMjE4NjV9.qyw8LImF4dsEdId
    kWkGxlfZdbp-a_Elt51Iqx9CpU2o"
}
```

Then, in the subsequent requests, add to the header

“Authorization”:

```
"eyJhbGciOiJIUzI1NiJ9.eyJ1c2VyX2lkIjo1LCJleHAiOjE1ODEzMjE4NjV9.qyw8LImF4dsEdId
kWkGxlfZdbp-a_Elt51Iqx9CpU2o"
```

#### View tasks:

GET <http://cvwo-application-ho-si-binh.herokuapp.com/v1/users/x?page=y>  
 where x is the id of the user and y is the desired page number.

#### Add task:

POST <http://cvwo-application-ho-si-binh.herokuapp.com/v1/tasks>

Body (deadline stored as a string of form DD/MM/YYYY):

```
{
  "task": {
    "category": "cat-1 cat-2 cat-3",
    "deadline": "01/01/1970",
    "done": false,
    "name": "Task name",
    "user_id": 5
  }
}
```

#### Update task/ Mark task as done:

PATCH <http://cvwo-application-ho-si-binh.herokuapp.com/v1/tasks/x>

where x is the id of the task.

#### Delete task:

DELETE <http://cvwo-application-ho-si-binh.herokuapp.com/v1/tasks/x>

where x is the id of the task.