

## **CVWO Final Assignment Writeup**

Having only some prior experience in HTML, CSS and JavaScript programming, using react with rails to build web application was a whole new concept for me. This means that I have to learn to build a react with rails website from scratch solely by myself without the help of any lecturer or teaching assistant that I am used to in school. Despite the challenges, I am glad I took on the challenge as I have accomplished increased competency in building the website frontend and backend components by doing self-learning.

Before embarking on the assignment, I didn't even know how to set up a react with rails website. I am glad that I was able to find a YouTube video and follow the steps to set up the React with Rails framework so that I can program it using vscode. To learn react, I took on a Udemy course about web development and was able to follow through and did 2 other follows through projects before starting on the CVWO Assignments. After learning the fundamentals of React, I finally started frontend programming for the to-do-list application. I started using React to build different components that will be needed in my final website. I have learned that by building small components, it made the website very scalable and can even be reused in other projects or react native. Then, I started using CSS, Bootstrap and Semantic UI to create the website design as per the wireframe design in the Mid Assignment Submission. Learning to use CSS framework such as bootstrap and semantic UI makes designing the CSS faster and easier.

Thereafter, I moved into backend with rails. I have learned that rails are very efficient for a programming as it helps us generate the different html routes after indicating the resources under "routes.rb". Database generation took me awhile to get used to, but I am glad that it was able to generate the table without the use of SQL statements. I was able to achieve the CRUD operations and later also included the tagging system after by adding a foreign key to the task database. As I initially used SQLite, it took me awhile to research and migrate it to postgres SQL but I am glad that I did it.

Finally, I did some testing to make sure that the website worked as what I wanted. Fixed some bugs and I was ready to deploy it to Heroku. Heroku has a comprehensive step by step guide to deploy the website and it didn't take me long to finally deploy the website up to <http://eh-todolist.herokuapp.com/>.

Overview, I have accomplished and solved many minor problems along the way to build a to-do-list website that has a decent design and functionally. As I have learned, if I encountered programming problems along the way, there is a high chance someone else did too and solutions are available online given by the community. I am glad that I was able made a simple full stack website on my own and believe that I will be able to overcome any other challenges to come if I am selected for the CVWO module.

Name: Low En Hao (A0200239U)

## **User Manual:**

Website: <http://eh-todolist.herokuapp.com/>

### **Add Filter Tag:**

The screenshot shows the 'Add Filter Tag' section of the application. A sidebar on the left contains a 'Filter' dropdown menu with 'None' selected, a 'Delete Tag' button, and an 'Add Tag' section with a 'Test' input field and an 'Add Tag' button. A main area displays a list of tags. An alert box at the top says 'eh-todolist.herokuapp.com says Add this to the list of tags?' with 'OK' and 'Cancel' buttons. Annotations include: 'Step 1: Enter Tag Description in the textbox' pointing to the 'Test' input; 'Step 2: Press Add Tag' pointing to the 'Add Tag' button; 'Step 3: Click "OK" when the alert box appears' pointing to the 'OK' button; and 'Step 4 (End): Tag list will be updated here' pointing to the tag list area.

**Step 1:**  
Enter Tag Description in the textbox

**Step 2:**  
Press Add Tag

**Step 3:**  
Click "OK" when the alert box appears

**Step 4 (End):**  
Tag list will be updated here

### **Filter Task:**

The screenshot shows the 'Filter Task' section. A sidebar on the left has a 'Filter' dropdown menu with 'None', 'Important', and 'Test' options. The main area, titled 'My To Do List', shows a list of tasks: 'Exercise' and 'Important (Tag: Important)'. Each task has an 'Update' button and a trash icon. Annotations include: 'Step 1: Click on the filter dropdown to select filter' pointing to the 'Filter' dropdown; and 'Step 2 (End): Task will change automatically base on the chosen filter tag' pointing to the task list.

**Step 1:**  
Click on the filter dropdown to select filter

**Step 2 (End):**  
Task will change automatically base on the chosen filter tag

### **Add Task:**

The screenshot shows the 'Add Task' section. A sidebar on the left has a 'Filter' dropdown menu with 'None' selected, a 'Delete Tag' button, and an 'Add Tag' section with an 'Add New Tag' input field and an 'Add Tag' button. The main area shows a task list. An alert box at the top says 'eh-todolist.herokuapp.com says Task created successfully' with an 'OK' button. Annotations include: 'Step 1: Enter Task Description' pointing to the task input field; 'Step 2: Click on the "Tag" icon to add tag for the task' pointing to the tag selection icon; 'Step 3: Click on "Add" button' pointing to the 'Add' button; and 'Step 4 (End): Click on "OK" button and task will be created' pointing to the 'OK' button.

**Step 1:**  
Enter Task Description

**Step 2:**  
Click on the "Tag" icon to add tag for the task

**Step 3:**  
Click on "Add" button

**Step 4 (End):**  
Click on "OK" button and task will be created

### Update Task:

**Update Task**

Task  
Test

Tag  
Important

Update

**Step 2:**  
A modal will appear, update the task description / tag as you like

**Step 3 (End):**  
Click on the “Update” button to update

The screenshot shows the 'To Do List' application interface. A green line traces the path for the 'Delete Tag' step: it starts at the 'Filter' dropdown menu, moves to the 'Delete Tag' button, and then continues to the 'Delete Task' step. The 'Delete Task' step is indicated by a red box around the trash icon and a text box that says 'Delete Task: Click on the “bin” icon to delete a task'. The 'Delete Tag' step is indicated by a text box that says 'Delete Tag: Select the tag from the dropdown, then click on “Delete Tag” to delete'. The 'Delete Tag' button is highlighted with a red box. The 'Delete Task' step is indicated by a red box around the trash icon.

**Delete Tag:**  
Select the tag from the dropdown, then click on “Delete Tag” to delete

**Delete Task:**  
Click on the “bin” icon to delete a task

**Step 3 (End):**  
Click on the “OK” button to delete the completed task

**Step 2:**  
Click the “Completed” button

**Step 1:**  
Check the task which has been completed