**CVWO Winter Mid-Assignment Submission Write-up**

**HE XINYUE A0204712U**

**Github Repository:** <https://github.com/eksinyue/cvwo-todolist-xinyue>

Basic Use Cases

* Todo-List
  + Each todo item consists of title, due date, description, type and if it has been done.
  + CRUD operations for each todo item
    - CREATE - Click on the **“+”** button to add a new to do item
      * Todo title MUST be filled otherwise a warning message will be shown and todo is unable to be saved.
    - READ - Click on any todo item in the list to display its detail.
    - EDIT – Click on the **“✎”** to edit the details / mark it as done.
    - DELETE - Click on the **“✖”** button to delete a todo item
* Search bar
  + Search by title, description, type or due date by typing the relevant information inside the search bar
  + Sort todo items in the list by its due date / created date (by default) by clicking on the relevant buttons.

Execution Plan

* Create React-Rails Application with react-rail Gem [COMPLETED]
* Create Primary model Todo [COMPLETED]
  + CRUD [COMPLETED]
* Implement a tagging system to categorize tasks [IN-PROGRESS]
* Add search functionality [COMPLETED]
  + Search by title, type, description, due date, etc. [COMPLETED]
* Add sort functionality [COMPLETED]
  + Sort by due date [COMPLETED]
  + Sort by created date (by default) [COMPLETED]
* Improve user interface using CSS [IN-PROGRESS]
* Optional Tasks:
  + Cron
  + Typescript
  + Hosting - Deploy to Heroku
  + Redux
  + Docker

Progress Timeline & Challenges faced

|  |  |
| --- | --- |
| Date | Progress |
| 10/12 – 12/12 | Learning Ruby - Codecademy |
| 13/12 | Learning HTML & CSS - Codecademy |
| 14/12 | Learning Ruby on Rails – Codecademy  Learning Rails – RoR official guides  Codecademy Rails tutorial uses an older version of Rails 🡪 switch to Rails website guides |
| 15/12 | Create Rails Application with Bootstrap Gem  Create Primary model Post - added create & destroy function |
| 16/12 | Post – added show & update function  Create Secondary model Note - added create & destroy function  Though a todo list app with basic CRUD functionality was developed, the frontend was developed in the rails view in erb and React was not used this time. **To view this version: check “cvwo-todolist-withoutReact” folder.** |
| 17/12 – 19/12 | Learning Recreate part I & II– Codecademy  Learning Recreate– React Docs |
| 20/12 | Learning Git – Codecademy |
| 21/12 | Followed online tutorial built a todo list -- frontend recreate app with rails api (separate apps)  <https://medium.com/@pamit/todo-list-building-a-react-app-with-rails-api-7a3027907665>  After exploring the various methods of integrating rails with react, I was unsure about which one to adopt for this project 🡪 if to build the backend and frontend in two separate apps or simply integrate the two with webpacker/gem. |
| 22/12 | Failed to initialize a rails-react application with webpacker  Unable to solve “Webpacker::Manifest::MissingEntryError” unable to display component content on localhost |
| 23/12 | Initialized a new Rails Application with react-rails gem (git was used to track commits)  Set up rails backend – json  Created several React components to display todo list (on a new git branch – test-react) |
| 24/12 | Develop React component to support create, edit & delete functionality |
| 25/12 | Added search bar, sort functionality (by due date / by created date), Datepicker, Flash Message to replace alert, etc. |
| 26/12 | Worked on css styling of the website   * Completed todo * Style for active link/links while hovering, etc.   Created secondary controller and model Subpost  I wished to build a subtodo list under each todo item with create and delete functionality. However, I have yet figured out how to work with associated models in react and json. |
| 27/12 | Added type & description columns for todo items  Attempted on building a tagging system  I intend to use the ready-to-use react tagging component ‘React-Tags’ however installing the package seems to interfere with the existing ‘React-rails’ package as “uncaught error: cannot find module 'react\_ujs'” error was shown. |
| 28/12 | Tidy up the files for mid-submission |

P.S.

To run the programme on local machine:

Download the zip file from Github 🡪 run “rails db:migrate” in terminal

🡪 run “rails s” 🡪 open <http://localhost:3000> in browser to view the website