Task management web application

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Links

Balsamiq Wireframe: https://balsamiq.cloud/sgmrki3/pchsyqf

Front-End Repository: https://github.com/yixiann/task-management

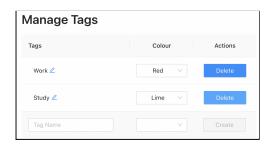
Back-End Repository: https://github.com/yixiann/task-management-backend

Deployed Application: https://task-management-yixiann.vercel.app/overview

User Manual

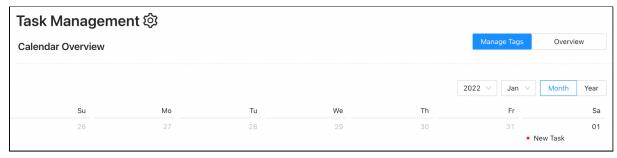


- Click on the "Create Task" button to create a task.
- Click on the "Manage Tags" button to create, delete, update and edit tags.
- Click on the "**Download**" button to download tasks in the table.
- Click on the "Calendar" tab to toggle to a calendar view.
- Click on the "**Gear**" icon to change language.
- Click on **any** of the tasks to view more details about the task.
- Enter information in the search bar about **any** task to filter it in the table.
- Sort tasks by "Task Name", "Details" and "Deadline" in ascending and descending order by clicking on the header.
- Filter tasks by "Tags", "Priority" and "Status" by clicking on the filter symbol next to the respective header text.
- Click on the checkbox of **any** task to select the task for deletion.
- Click on the checkbox of the **headers** to select all the tasks for deletion.
- Click on the "**Delete Selected**" button to delete selected tasks forever.
- Click on the "Arrow" icon and "Page Number" to toggle between pages.

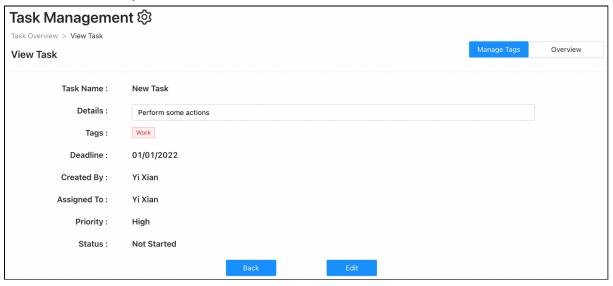


View this by clicking "Manage Tags"

- Click on the **Color Dropdown** to update the color of a tag.
- Click on the "**Delete**" button to delete a tag.
- Click on the "**Pencil**" icon to edit the name of a tag.
- Fill up "Tag Name", select "Color" and click the "Create" button to create a new tag.



- Click on the "Overview" tab to toggle to the overview mode.
- Click on the "Year" and "Month" button to change calendar view mode.
- Select "Year" and "Month" to view tasks by year or month.
- Click on any of the tasks to view more details about the task.



- Click on the "**Edit**" button to edit the task.
- Click on the "Back" button or "Task Overview" breadcrumb to return to the overview page.
- After clicking on the "Edit" button, click on the "Delete Task" button to delete a task and "Cancel" button to revert back to viewing mode.
- Click on the "Save" button to save a task.
- Edit the task details by clicking on the respective fields.

Note:

- 1. It is okay to refresh the page while editing the form.
- 2. Additionally, changes to tags will immediately be reflected even when you are editing the form.
- 3. Changing the name and color of a tag will affect all taskings with that tag.
- 4. Every irreversible action will be accompanied with a modal to confirm your decision.





Hopefully, you will never see the error modal that appears when tasks or tags fail to load or actions fail to be executed:)

Write Up

I had a lot of fun creating this task management application. Not only was it enjoyable, it taught me the importance of utilizing React Components. I wish holidays were longer as there were features that I wanted to implement but did not have sufficient time to do so.

As the app became larger, I realized that components are important as in future if there are any modifications, we can easily make changes throughout the application instead of hunting for places which use the errant code. Consolidating language and utility functions allowed these to be used across the app without it cluttering the main logic of the code as well.

The main issue I faced was when I am configuring the loading spinners for each of the axios requests. I should have used a systematic method to plan when the spinners will spin based on the success and failure of relevant axios requests before implementing it. I would have saved more time.

Things I have to work on:

1. Firebase or Subrabase Authentication

Ultimately a task management application is not practical if there is no user authentication. However, I faced issues with firebase dns records as I did not manage to "prove" that the vercel app belongs to me under DNS configuration. I believe I had to purchase the domain name if I were to implement Firebase Authentication. If I had chosen to use JWT tokens from scratch, I may have been able to implement it. However, in future I would love to learn how to use these to speed up deployment and reduce the need of integrating with other third party authentication.

2. The axios request for deleting multiple taskings are actually a series of multiple delete task request

This is slow and not scalable. I hope to learn how to bypass this in future.

3. Pagination of taskings

To decrease load time, I should have implemented pagination to decrease the amount of time data takes to be sent to the front end.

4. Mobile Screen Friendly

Currently the webpage just shrinks when viewed on mobile. Considering that most users would like to update taskings on the go using their mobile phone, I should optimize the app for mobile devices as well.

Nonetheless, thank you for providing me with this wonderful opportunity and guidance! I enjoyed every bit of it and hope to create larger applications that will benefit society in future!