Kanban Board

Objective

> 💡 **Please read the whole documentation carefully!**

In a Kanban board developed with React or Next.js, the user should be able to create tasks and maintain the status of each task. To store the tasks in a database, use the Firestore Database provided by Google Firebase.

Through this task we will measure the following aspects:

- Your thought process, your approach to solving a problem

- Concepts of React/Next.js and JavaScript

- Utilization of a component library

- Flow process from wireframe to UI development

- Usage of CSS and responsive design

- Integration of Database

- Capability to understand any given task

Figma file link (UI reference):

https://www.figma.com/design/LvIrJ2fcRNabf8UHMjBHJW/Front-End-Task?node-id=0-1&node-type=CANVAS&t=FsM3zcjq2IXdSHWn-0

Task Requirements:

- Create a webpage to list all the tasks in their respective columns (TODO | IN PROGRESS | COMPLETED)

- Add a new Task with the selected status

  - Clicking the "Create" button should open a Modal/Popup/Dialog with a Form to create a task (refer to the Figma File)

- Edit an existing task

- Delete a task

- Change the status of a created task to move it into different columns (Usage of Drag and Drop feature is a PLUS)

- Follow the given UI references (could tweak as per your own style as well) → Typography and the color scheme should be similar

- Use the **.env** file for storing the Firebase API key, shouldn't expose to git

- Go through the given Checklist for more info, and mark each one of them as completed accordingly

Process To Follow:

- Create a Notion page and copy all the contents from here

- Create a fresh GitHub repo giving it a relevant name

- Use **React/Next.js** for this task (using Next.js will be a PLUS)

- Configure app for **TypeScript** support as writing the code with TypeScript will be a PLUS

- Consider the provided UI references for developing your UI (not necessarily be the exact same)

- Git commit in proper intervals (it will have an edge in the selection process)

- Push all changes when completed

- **Deploy to Vercel to host your webpage**

- Tick all the items that you have completed in your Notion doc checklist

- Share your Notion doc while submitting the task after filling up the required sections

Task Checklist

> 💡 The following will be categorized into **MUST** do's & **PLUS** do's
>
> **MUST** - The mandatory ones, based on these, the task will be MEASURED. Should submit the task only after completing these.
>
> **PLUS** - Optional, but completing these will give you an advantage in the selection process :)

MUST Do's

- ☑ ~~Created a Notion doc and copied all contents~~
- ☑ ~~Created a GitHub repository~~
- ☑ ~~Used React for the project~~
- ☑ ~~**Integrated Firebase to store your tasks**~~
- ☑ ~~Complete all the tasks mentioned above~~

   Task Requirements:

- ☑ ~~Implemented proper error handling~~
- ☑ ~~Deployed on Vercel~~

PLUS Do's

- ☑ ~~Made git commits with appropriate commit messages~~
- ☐ Used Typescript
- ☑ ~~Used Tailwind or other CSS Framework~~
- ☐ Using a component library → Ant design (recommended)/Material UI/React Bootstrap
- ☑ ~~UI detailing:~~
  - ☑ ~~Change status with drag- and- drop functionality~~
  - ☑ ~~Followed reference UI~~

Links (MUST)

GitHub Profile: https://github.com/iamadishiv1

Repository Link: https://github.com/iamadishiv1/Kanban_board

Demo Link: https://kanban-board-three-sage.vercel.app/

Learning Outcome (MUST)

🚀 Fill in this section accordingly after completing the checklist

Any complexity/difficulty faced while developing this app?

→Fetching the data form a database like Firestore and dealing with asynchronous operations.

Adding libraries like React DnD for drag-and-drop features makes things even more complex.(Followed reactDND documentation and first I had done basic example)

"Create" button should open a Modal/Popup/Dialog with a Form to create a task is one the good task that I stucked for sometime.

Reason for not completing any one of the Checklist Items (if any)?

→ For this project, I decided not to use TypeScript, Ant Design, Material UI, or React Bootstrap due to time constraints and to focus on mastering the core React concepts. As a beginner, my primary goal was to get comfortable with React and Firebase while ensuring that the core functionalities were implemented correctly.Using additional tools like TypeScript or a component library would have required extra learning time, which could have detracted from focusing on understanding the basics and ensuring the app worked as intended. Instead, I prioritized using Tailwind CSS for styling to keep things simpler and more manageable, which allowed me to focus on the logic and structure of the application.

Did you get to learn anything new/key concepts?

→ Yes, I learned several key concepts while working on this project:

- Learned Firebase integration for data storage and retrieval.

- Implemented React DnD for drag-and-drop functionality.

- Improved understanding of React component structure and state management.

- Gained experience with Tailwind CSS for responsive UI design.

- Enhanced error handling in asynchronous operations.

- Learned the deployment process using Vercel.

Do you think this task is gonna benefit you in the job?`

→Yes, this task will benefit in a job by:

- Strengthening React and Firebase skills, which are widely used in the industry.

- Demonstrating the ability to build interactive UIs with drag-and-drop functionality.

- Showcasing experience in deploying applications, which is essential for real-world projects.

- Highlighting problem-solving abilities through error handling and debugging and How to work on real life projects.

- Improving proficiency in modern CSS frameworks like Tailwind, which enhances UI design capabilities and give me edge over normal CSS and also helps in making responsive website more easily.

Any feedback?

→ Feeback:

- **Clear Instructions**: Task details and UI references were well-defined and useful.

- **Complexity**: Challenging and educational, especially with drag-and-drop and modals.

- **Resource Suggestions**: More guidance on TypeScript and component libraries would be helpful.

- **Support**: Additional tips on handling asynchronous operations and common errors would benefit beginners.

- **Evaluation Criteria**: Clarifying the importance of optional items like TypeScript and component libraries could encourage their use.

References

- https://firebase.google.com/docs/firestore/quickstart#web_4

- https://react-dnd.github.io/react-dnd/docs/overview

- https://ant.design/docs/react/getting-started

Deployment Services

You could host/deploy your app using one of the following services free of cost

- **Vercel**