Personalized Task List Organizer

Stakeholders:

- **User:** Any person who wants to access the application in order to keep their tasks organized;
- **Admin:** A person that manages the server, e.g., starts the server locally.

Terminology:

- **Board:** A representation of all tasks that need doing for one category, split into multiple lists:
    - **Open Board:** A board on which multiple users can add, change and/or delete tasks;
    - **Private Board:** A board on which only one user can work with tasks.
- **List:** A list of tasks that identify one sub-category (e.g. To Do, Doing, Done);
- **Card:** A way for tasks to be represented, with titles, descriptions and tags.

Epics:

- **Board**
    - As a user, I want to maintain my tasks organized in lists, having a good way of keeping track of my activities: what I need to do, what I am currently doing and what I have finished;
        - Present the users with three original Lists - To Do, Doing, Done
        - Allow the users to create new lists by their design
        - Allow users to delete lists as they want
    - As a user, I want to have the overview of my tasks synchronize automatically, such that changes that I make are saved without me having to do anything;
        - Whenever a change is made reload the application to reflect it
        - Whenever another user edits the application, reflect the change in real time to all other devices
    - As an admin I want to be able to access all boards on the server in case I need to take action;
        - Have access to all boards in the DB
        - Private option to delete any board

- **Card**
  - As a user I want to be able to create a card inside the to do list. I will always have multiple tasks happening simultaneously, such as: I can have plenty of tasks that I need to do, but not started yet, or multiple tasks which I am currently working on;
    - Allow the user create a task
    - Save the task in a database so the user can access it later
  - As a user, I want to be able to add/delete new cards or lists. Tasks will always come and go, so I want to be able to constantly add or delete cards;
    - Allow users to delete a card
    - Remove the task from the database as it will occupy needed space
  - Be able to edit an existing card or list. An editing feature is mandatory, as I do not want to delete an entire card/list if I made a mistake in it;
    - Allow the user to edit features of the card by their design
    - Allow the user to add new features to cards
    - Save the changes to the card in the database
  - As a user, I want to be able to add multiple details(subtasks, description) to a card so that it would be easier to achieve a big goal;
    - Create smaller tasks for a task
    - Have a description for a task
      Have the details hidden in the normal view
  - As a user, I want to be able to customize my cards so that I will have more flexibility in classifying my tasks and makes each one more easily identifiable;
    - Change the color of the card
    - Edit card's details (the description, the subtasks)
  - As an admin I want to be able to keep track of all cards which have been created;
    - Store each card on a DB
    - Give each card an unique id so I can distinguish between cards
  - As an admin I want to be able to edit/delete all cards on the server in case I need to take action;
    - Have access to all cards in the DB
    - Private option to delete any card from any board

- **Drag & Drop**
  - As a user/admin, I want to be able to drag and drop features in order to move a card between the lists. This would facilitate the process of moving a card from one list to another;
    - Allow the user to move tasks between lists with their mouse
    - Changes made by dragging and dropping seamlessly update the board status

- **User Access**
  - As a user, I would like to be able to log into the app with a username and to store boards on my profile to have them at a later date;
  - As an admin implementing a username based login feature would make the account creation experience seamless and it would be easy to attribute each board to its creator;
    - Users using their username to access the boards they have access to
    - Making account creation as easy as possible
    - Each username being linked to the board tokens they have access to (view or/and write)
  - As an admin, I want to have a functional multiuser client-server application, so multiple people can use and collaborate on different boards without me updating the users' actions;
    - Host all of the users' activity (edit/add actions) on the server
    - Being able to host multiple users without the app crashing
    - The ability to remove/restore/add a user

- **Multiple boards**
  - As a user, I want to have multiple boards which will contain multiple lists. This feature will give a better organization of the tasks;
    - All boards appear in the overview
    - All the information added to a board is saved in the database
  - As a user I want to be able to make a board open to everyone using the app, or make it private so that more people or only me can access it;
    - Classify a board as either open or private.
    - Request editing access in order to have access to a private board
    - Give access to my boards
  - As a user, I would like to block access to my board for unauthorized people by setting a password to my respective boards;
    - It is simple to convert to and from a normal board to a password-protected one
    - When entering the board, users will have to input the password to gain access
  - As a user I want to share my boards with other users, so I can work with my team on multiple tasks and keep track of them;
    - Each board has a unique token that can be shared across users
    - Each user can be given access to either change or view a board

- **Interface**
  - As a user an important thing I am looking at in an app is how I can interact with it. I would like it to be intuitive and easy to understand the first time I am using the app, as well as making it easy to use so that it motivates me to use it often;
  - As an admin, I aim to deliver an app that is easy to use by consumers, by making it accessible and intuitive in order to motivate the user;
    - The app to have a user-friendly interface that makes it easy and intuitive to navigate
    - Having personalisation available so that the user can make the most out of the app
    - To have a nice design and a good choice of color palette

- **Tags**
  - As a user, I want to have multiple tags for a task. This would make the overview of a task considerably easier by just taking a look at the tags;
    - The tags will appear at the bottom of a card
    - Add/delete tags
  - As a user, I want to be able to customize the tags. This will give me more flexibility and a visually appealing interface. This would make searching tasks easier;
    - The tags can be a difficulty level, a domain, a priority level, or whatever the user wants to name the tag
    - The tags can have multiple colors

- **Search and filter**
  - As a user, I want to be able to filter tasks, either by keyword, task name, or tag;
    - When searching something, the places in the application where we have a match will be highlighted
  - As a user, I want to be able to search for specific boards by their name or id;
    - The search bar is displayed somewhere at the top of the application
    - Check whether the entered text has any correspondence with any board in the DB

- **Keyboard shortcuts**
  - As a user, I would like to be able to use a variety of key combinations to access features like card/list/board creations easier;
  - As a user, I should also be able to find out about these keyboard shortcuts by simply hovering over their respective buttons (as in, hovering over the '+' button shows how the keyboard shortcut for adding a new card);
    - Shortcuts are intuitive and functional
    - Shortcuts are easily identifiable

- **Progress tracker**
  - As a user, I would like to track how many tasks I've finished as a percentage of the number of tasks on a board;
    - Mark tasks as done and have a progress bar as a ratio between done and not done tasks
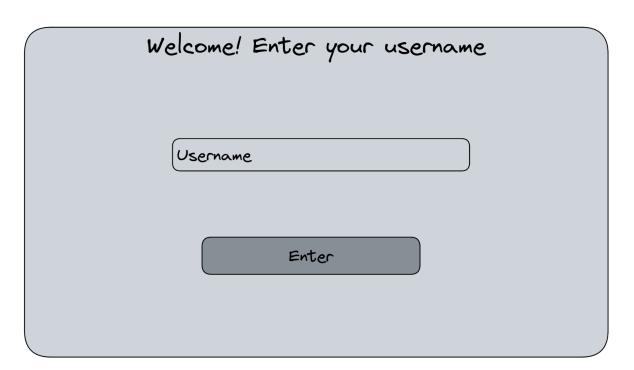
- **Notifications**
  - As a user, I would like to be reminded of due tasks, so I don't forget to do it;
    - When I create a task, I should be able to add a deadline to it
    - If I create a task with a deadline, the program should send me notifications to the board as a reminder to finish the task
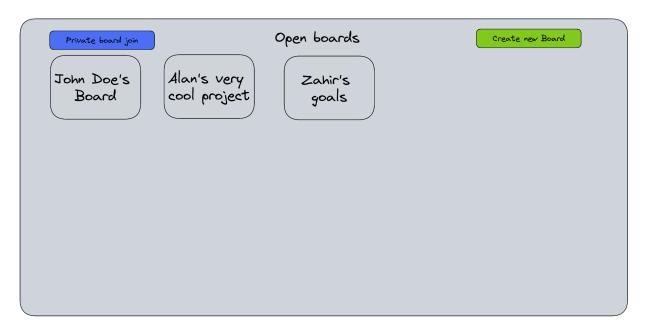- **Backup**
  - As an admin, I want to have a backup and restore functionality so that in case of a data loss, the user can still have their boards.
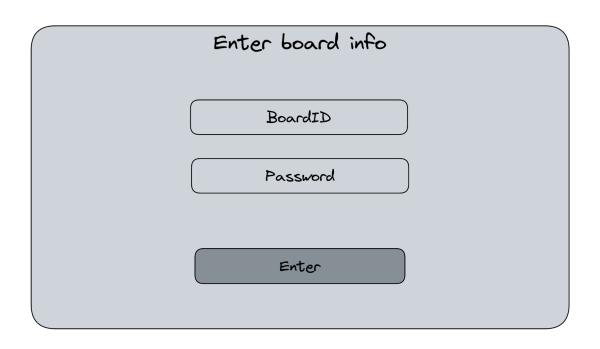
MOCKS

Username Entry Screen

Welcome! Enter your username

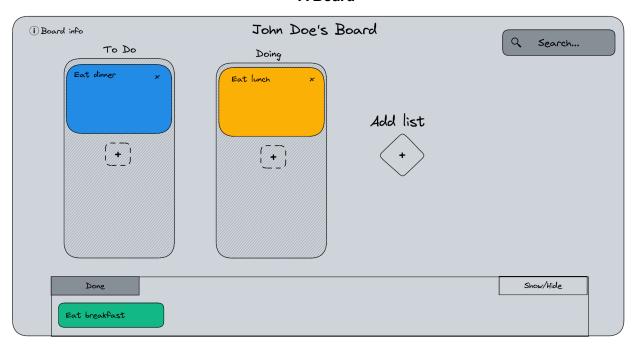Username

Enter

Main Screen With Open Boards

Private board join

Open boards

Create new Board

John Doe's Board

Alan's very cool project

Zahir's goals

Password entry screen (for private boards)

Enter board info

BoardID

Password

Enter

A Board

John Doe's Board

ⓘ Board info

Search...

To Do

Eat dinner ✕

+

Doing

Eat lunch ✕

+

Add list

+

Done

Eat breakfast

Show/Hide

A card's details

Card details ←

Eat dinner 🖉

Description

Going to have a nice dinner at a fancy restaurant 🖉

Subtasks

☐ Schedule dinner

☐ Order food

⊕ Add subtask

Color:

✓ Deadline: 03 03 2023

21:00

Tags

Food ✕ Life ✕ +