Team **11**

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Talio: Your personal Task List Organizer Backlog

Stakeholders:

- **User**: a person who wants to use the application to keep track of their tasks
- **Admin**: the person that is able to start the server of the application and can manage all the users and their boards

Terminology:

- **Board**: A unique container containing lists, having a title and being identified by a key.
- **List (Column)**: A container containing 0 or more cards. A list is located on a board. A list represents the status of the collection of cards that it contains. A list has a name, representing the task-status the list represents.
- **Card:** A container representing a specific task. A card is located in one and only one list.
- **Tag**: A label containing a short description that can be attached to a card.

Epics:

- **Minimal App** *(See mock 1)* - A functional task organizing application will have some basic features that a user can make use of to organize their tasks. These basic features are the minimal requirements the applications should have, for the user to be able to organize their tasks.
    - As a **user**, I want to have a board, so that I can visually organize my tasks in a way that I have a clear overview of what should be done and can see the status of each task.
    - As a **user**, I want to access my board without any registration, so I don't have to log in.
        - A user goes directly to the board.
    - As a **user**, I want to give the board a title, so that I can get an idea of what tasks the board consists of.
    - As a **user**, I want to change the title of the board, so that I can be able to always get an idea of which tasks the board contains, even if the type of tasks change over time.
    - As a **user**, I want my board to be able to be accessed and modified by multiple users, so that I can collaborate with other users in organizing tasks.

- ○ As a **user**, I want to add a list to the board, so I can organize my cards, and therefore also my tasks, by the current status of my tasks.
- ○ As a **user**, I want to give a list a name, so that I can indicate the status of the cards the list contains.
- ○ As a **user**, I want to edit a list's name, so I have the flexibility to change the status a list represents, without deleting it.
- ○ As a **user**, I want to remove a list from the board, so I can clear up the board from lists that don't represent valid status' of any of the cards on the board (anymore), or from lists that only contain cards that I want to discard anyway.
    - ■ When removing a list, all of the cards it contains will also be deleted.
- ○ As a **user**, I want to add a card to the board by putting it in the left-most column, so that I can represent any new tasks I have on my board.
    - ■ An added card has a name/ title representing the task.
- ○ As a **user**, I want to edit the title of a card, so I have the flexibility to change the task a card represents, without deleting the card.
- ○ As a **user**, I want to remove a card from the board, so that I can clear up the board from cards that don't represent my tasks at a given moment anymore.
- ○ As a **user**, I want to immediately see if someone writes or edits something on the board (auto synchronization), so there are no conflicts on the board caused by multiple users, and all updates on the board are immediately visible.
- ○ As a **user**, I want to drag and drop cards within a list, so I can display my tasks by priority.
- ○ As a **user,** I want to drag and drop cards between lists (from list to list), so I can display a task by its status by placing it in the corresponding list that represents its status.
- ○ As a **user**, I want that all the actions I have made on a board are saved in a database, so I can view exactly where I left off the next time I use the application.
    - ■ The changes are saved in real time.
- ○ As an **admin**, I want to (re)start the server without losing the boards.
- ○ As an **admin**, I want that the server does not crash when a user drops out, so I can just leave the server running in the background.

- ● **Multi-Board** *(See mock 2) -* A user will be able to create, access and use multiple different boards on the application, to organize their tasks for different activities or situations in an organized fashion.
    - ○ As a **user**, I want to be able to create multiple boards to organize different kinds of tasks on different boards, so that I can keep each individual board more clear.
    - ○ As a **user**, I want the boards that I created to have unique keys, so that other users can use the key of a board to access that board.
        - ■ All boards should be able to be accessed by multiple users.
    - ○ As a **user**, I want to see no board if I search for a board using an invalid/non-existing key.
    - ○ As a **user**, I want to see an overview of all my boards, so I can get an idea of all the tasks from all the boards I have at a given moment.
        - ■ The overview contains the titles of the boards a user has created.

- ■ The overview contains the titles of the boards a user has joined using a key.
  - ○ As a **user**, I want to be able to switch from a board I am currently working on to another one of my boards, so I can be able to organize my tasks on various boards.
    - ■ The user will be able to swap boards by clicking on a board while all boards are being displayed by the overview option.
  - ○ As an **admin**, I want to delete boards which are inappropriate, so I can maintain an appropriate environment across the application.
    - ■ The admin has the power to delete any board.

- ● **Detailed cards** *(See mock 4)* - Users can add more information to their cards, to get a clearer picture of their tasks and what should be done to complete them.
  - ○ As a **user**, I want to add descriptions to cards, so I have more context/ extra information of the task at hand.
  - ○ As a **user**, I want to create a nested list for a task by adding subtasks to it, so I can display which steps are required to complete the task.
    - ■ A task containing a nested list of subtasks has two counters which can be seen when viewing the card on the board; one for the number of completed subtasks and one for the total amount of subtasks.
    - ■ Adding a subtask to the nested list increments the second counter.
    - ■ A task whose nested list contains 0 subtasks has no counters.
  - ○ As a **user**, I want to be able to check off subtasks of a task which I have completed, so I can keep track of my progress on the task.
    - ■ Checking off a subtask increments the value of the counter representing the number of completed subtasks.
    - ■ If all the subtasks in the nested list of a task are checked off, the two counters which are seen when viewing the card from the board will be replaced by a checkmark.
    - ■ When a subtask is created, it is unchecked by default.
  - ○ As a **user**, I want to be able to remove a subtask that I previously added to a nested list, so I have the flexibility to change the nested list, without deleting the task.
    - ■ Removing a subtask from the nested list decrements the counter representing the total number of subtasks.
  - ○ As a **user**, I want to be able to uncheck a subtask that I previously checked off, so I have the flexibility to undo a check off of a subtask, without deleting the subtask.
    - ■ Unchecking a subtask decrements the value of the counter representing the number of completed subtasks.
  - ○ As a **user**, I want to add a deadline to a task, so I can keep track of when the tasks I have created should be completed.
    - ■ A card with a deadline has an icon, containing the day and the abbreviation of the month of the deadline, which can be seen when viewing the card on the board.
  - ○ As a **user**, I want to indicate that I have completed a task before its deadline has passed, so I can see on the board that the task is done on time.

- The icon on the card representing the deadline can be clicked to make it turn green, indicating that the task has been completed on time.
  - As a **user**, I want to know when the deadline of an unfinished task has passed, so I can know whether I am falling behind on any tasks.
    - The icon representing a deadline turns red if the deadline is passed and the icon was not set to green.
    - If the icon is green when the deadline has passed, it won't turn red.
  - As a **user**, I want to be able to change or remove a deadline I have previously set for a task, so I have the flexibility to undo an assigned deadline, without having to delete the task.

- **Tag support** *(See mocks 4 & 5)* - Users can add tags to their cards, which may help them in categorizing and identifying their tasks based on context, or any other meaningful categories the tasks might fall under, or the properties the tasks have.
  - As a **user**, I want to set (multiple) tags to my tasks, so I have a way to categorize my tasks based on the characteristics of the tasks, and have a way to identify my tasks at a quick glance based on their tag.
    - A new tag can be created and attached to a task.
    - A to-be-added tag can be selected from a list of previously created tags.
    - A newly created tag is added to the list of created tags automatically.
  - As a **user**, I want to remove tag(s) of a task, so I have the flexibility of removing the task out of a certain grouping, without having to delete the task.

- **Customization** *(See mocks 3 & 5)* - Users are able to customize elements of the application they are using to a certain degree based on their personal interests, so that they may have a more pleasant experience using the application.
  - As a **user**, I want to change the background color of the board, so I can work on a board with an appearance that I prefer.
    - The color of the background can be changed using a color palette.
  - As a **user**, I want to choose the color of the tags that I can attach to my tasks, so I can easily distinguish tags from one another, and therefore also the categories in which the tasks (containing tags) fall under.
    - Choosing a color for a given tag is done when creating the tag.

- **Keyboard shortcuts** - Users are provided with some keyboard shortcuts which may simplify certain actions that can be done in the application. These keyboard shortcuts will be beneficial for the user experience.
  - As a **user**, I want to use keyboard shortcuts which fulfill certain actions within the application, so I can work with the application more efficiently.
    - A shortcut to quickly add a new card (Ctrl + K)
    - A shortcut to quickly add a new list (Ctrl + L)
    - A shortcut to move a card up/down the list it is in (using the up and down arrow keys after clicking on a card once, when viewing the card from the board)

- **Password Protected Boards** - Users are able to create password protected boards, which provide a layer of security for these boards. Creating password protected boards may limit the degree of freedom other users will have on said boards.
  - As a **user**, I want to be able to create password protected boards, so that other users who don't have access to the password of these boards can only view them, and therefore not modify them.
    - Users will be asked to fill in a password if they are trying to join a password protected board.
  - As a **user**, I want to be able to have full access in editing a password protected board, after unlocking it by filling in its correct password.
    - Unlocking a password protected board also grants the user the ability to change the password of that board.
  - As an **admin**, I want to be able to unlock password protected boards and edit them.

- **Live interaction** - All users on a given board can keep track of what other users on the same board are doing. This can improve the cooperation on the board and improve the user experience.
  - As a **user**, I want to see if another user is working on/ editing a card live, so I know whether I will be interrupting someone else's work on a card if I start working on said card.
    - A card which is being worked on by a user has its title in bold letters, so that other users can be indicated that the card is being worked on.
    - A user should be able to see whether a card is being dragged and dropped.
    - A user should be able to see whether a card's information is being edited.
  - As a **user**, I want to see how many other people are looking at the board I am working on, so I know if there are other people currently looking at the board, and if so, how high the activity on the board is.
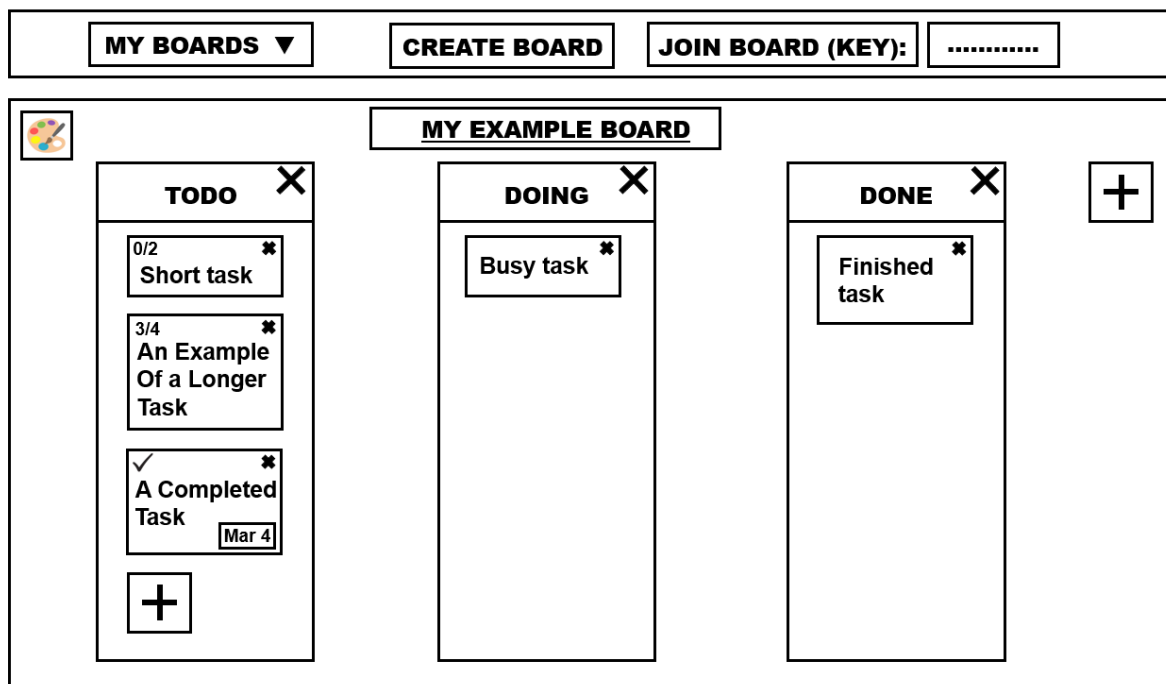   - A number representing the number of users on a board is shown next to the board's title.

Mocks:

Mock 1: Minimal application
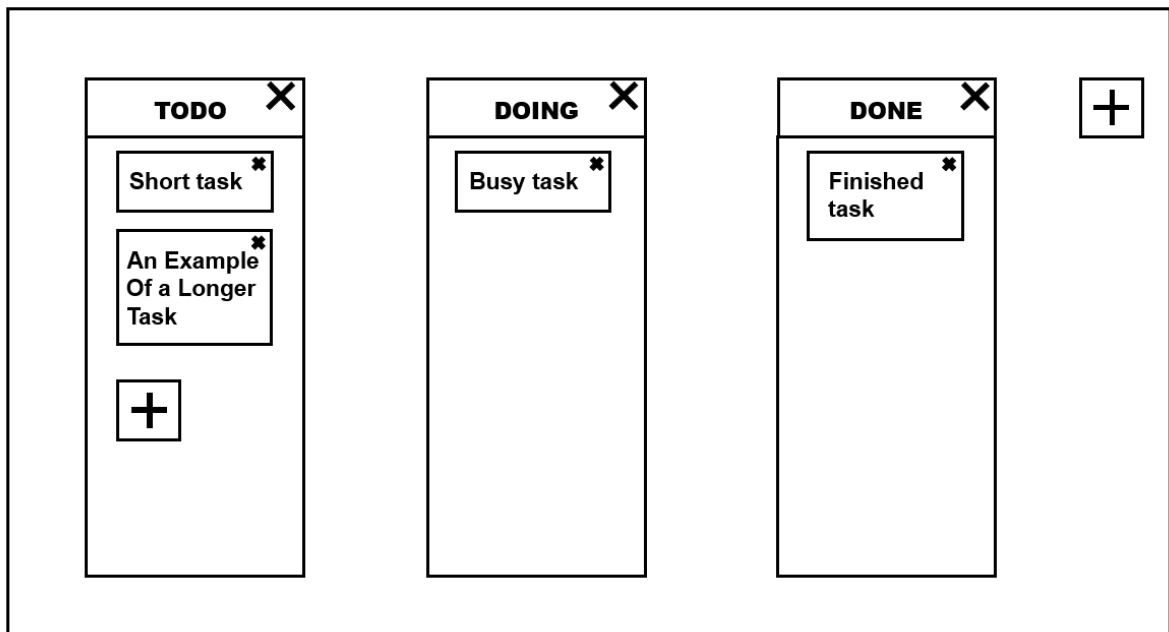
This mock shows that a user can add and remove tasks. It also shows that a user can add and remove lists. If a user removes a list, then all the tasks within the list will be deleted.

Mock 2: The application with additional features

This mock shows the application with additional features, which the minimal app doesn't have. The mock shows that a user can create a new board, or join an already existing board created by another user by typing in the key of a board. The user can also view all their

boards by clicking on the "my boards" menu. While all the boards are shown, the user can click on one of them to swap their current board with that one.

The mock also shows that certain tasks can have a nested list containing subtasks. This is indicated by the two numbers on a card, which are divided by a slash. The right number represents the total amount of subtasks, while the left number represents the number of subtasks that are completed (see "Short Task" and "An Example Of a Longer Task"). A task where all its subtasks are completed has a checkmark in the place where the numbers should be (see "A Completed Task"). A task with no subtasks has no indicating numbers or checkmark (see "Busy Task").

Furthermore, the mock shows that a task can have a deadline. The card "A Completed Task" has a deadline of the 4th of March, which is displayed in a button that can be clicked to make it turn green (indicating that the task is completed on time). If the deadline has passed and the task is still not done, the button turns red.

The color palette icon is explained in Mock 3.

Mock 3: Choosing a background color
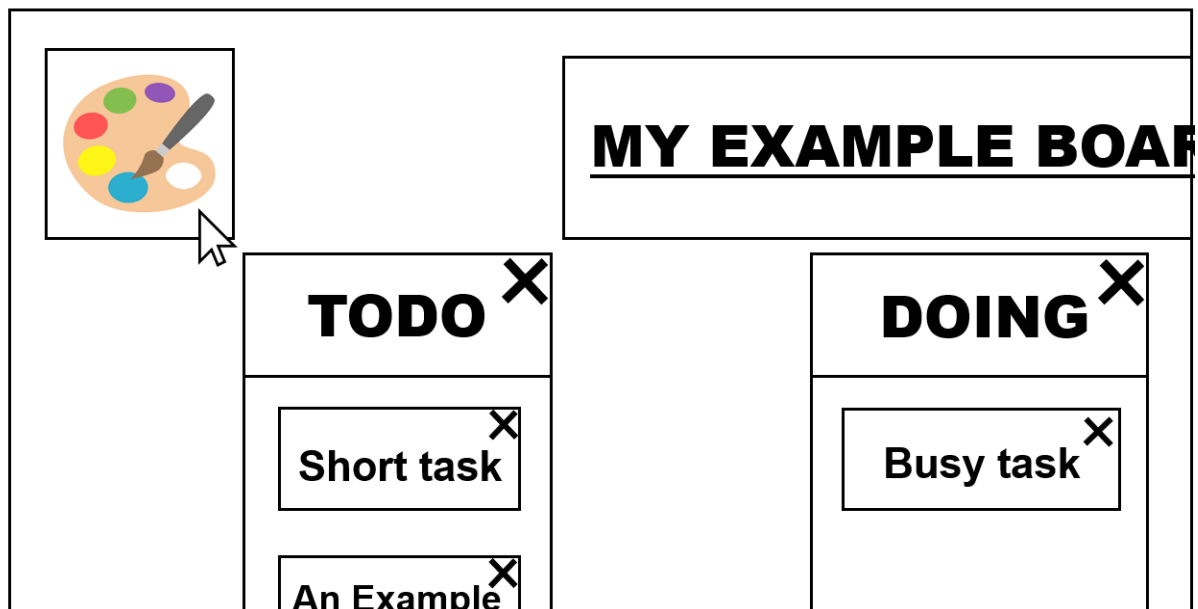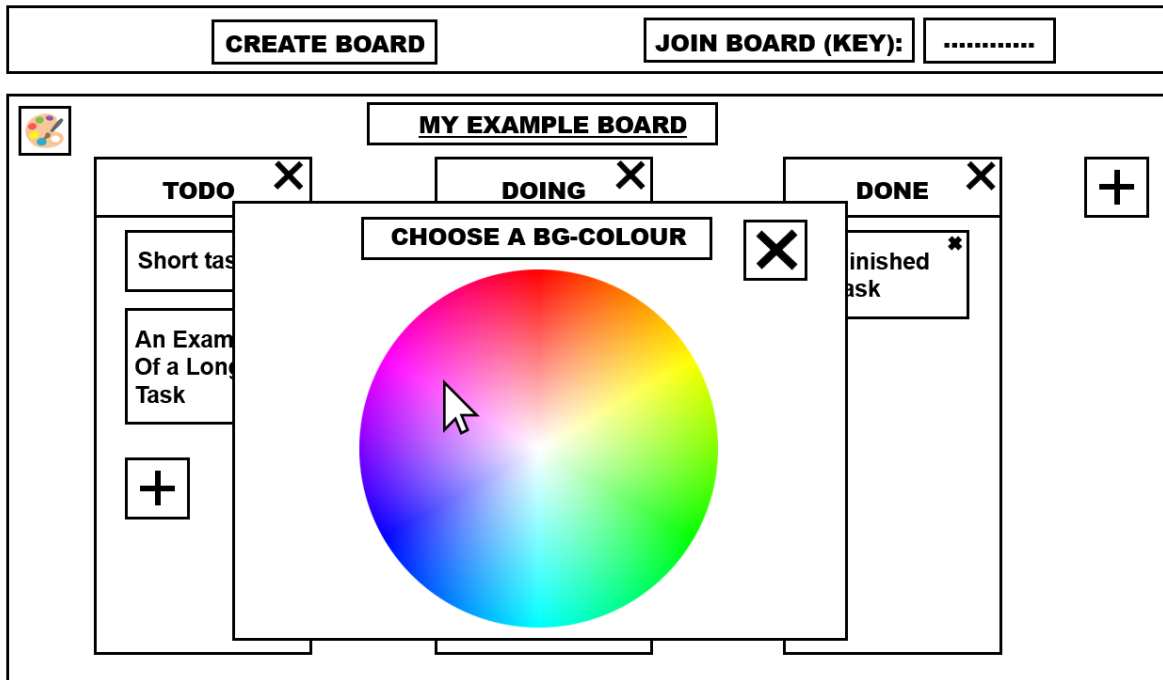
This mock shows what happens when a user presses the color palette icon, which is seen on the top left corner of the board. The user gets to see a color wheel. The user can choose any color on this wheel. The color of the background will change according to the color the user chooses.

Mock 4: A detailed task with tag support

This mock shows what happens when a user double clicks on a task. The user sees the option to set and remove a deadline for/from the task, which is located next to the name of

the task. The mock shows a textarea in which a description for the task can be filled. Under the textarea lies a nested list, in which the user can add and remove subtasks. The user can also check off and uncheck a subtask. Moreover, the mock shows that a task can have tags attached to it, and that the user is able to add more tags to the task.

Mock 5: Adding new tags to a task
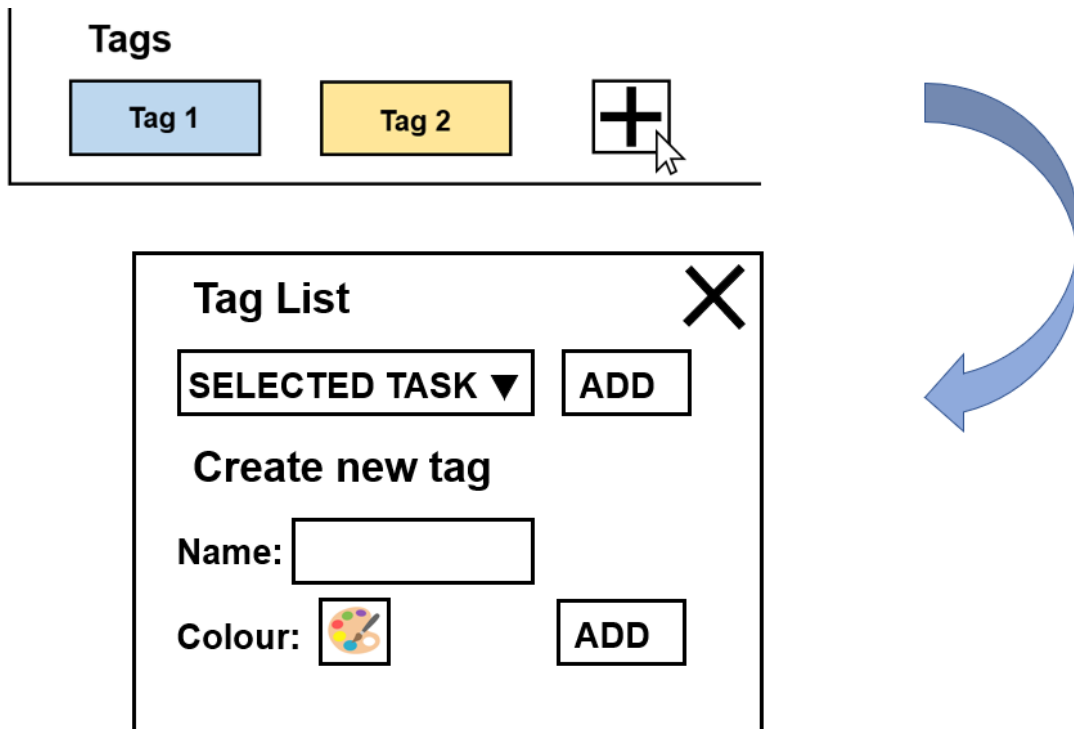
This mock shows what the user gets to see when they click on the "add tag" button. The user can either choose to open up a selection menu of previously created tags, from which the user can choose a tag to add to their task, or to create a new tag by setting its name and background color, which then can be attached to the task. A newly created tag will appear in the selection menu the next time the user wants to add a tag to their task.