

# Scrum Board Application

## Stakeholders:

- **User:** Any person should be able to join and create boards, with full editing rights.
- **Admin:** The person who hosts the backend on their computer.

## Terminology:

- **Board:** a collection of lists, can be accessed by multiple people with a password.
- **List:** a section of the board which contains the relevant cards and a title representing it.
- **Card:** a task with a description, tag and nested task list.
- **Tag:** simple word that can describe a task.
- **Nested task:** a task which is defined inside of a card, used to indicate smaller steps to achieve the task stated in the title of its card.

## Minimal Application

As a user, I want ...

- To be able to create a board without registering, so I can increase my efficiency working in a team.
  - Created board appears in my overview.
  - Created board appears in the overview of another client.
  - Created board is added to the database.
- To be able to join the board without registering, so I can easily access the boards.
  - When running the application you are joined to the main and the only board (minimal requirements).
- To be able to collaborate with other users on the same board, so I can work on the same board with other users.
  - The board is systematically synchronized.
  - The board can be edited by other users at the same time.
- To be able to create lists in boards, so I can organise my cards.
  - Created lists appear in my overview.
  - Created lists appear in the overview of another client.
  - Created lists are added to the database.
- To be able to remove a list from boards, so I can organise my cards.
  - Removed lists are deleted in my overview.
  - Removed lists are deleted in the overview of another client.
  - Removed lists are deleted from the database.
- To be able to create cards in lists, so I can manage my work.
  - Created cards appear in my overview.
  - Created cards appear in the overview of another client.
  - Created cards are added to the database.
- To be able to remove cards from lists, so I can manage my work.
  - Removed cards are deleted in my overview.
  - Removed cards are deleted in the overview of another client.
  - Removed cards are deleted from the database.
- To be able to drag a card and drop it into another list, so I can organise the board .
  - The card is removed from one list.
  - The card is added to the other list.

- The card is switched to another list in the database.
- Each card should have a title with which it can be identified.
  - Each card needs to have a title added to it.
  - The title is used to identify the card.

As an admin, I want ...

- To host the server which contains the boards, so the boards are accessible.
  - The boards can be accessed by users without having to host the server.
- To restart the server without losing the boards, so no data is lost.
  - The data of the boards will be saved in a database.
- That the server does not crash when a client drops out, so I can just leave the server running in the background.
  - The server will always be accessible regardless of any user leaving the application.

## Multiple board functionality

As a user I want...

- To be able to create multiple boards, so I can divide my work.
  - When creating a new board the application will provide the user with an automatically generated unique key using a hashing function.
  - Board and cards will have the same features as in the minimal application.
  - Upon start of the application, user gets a prompt in which they can either create or join a board.
- To be able to join multiple boards, so I have access to the work of my colleagues.
  - User can enter a key and collaborate in a board with other users.

## Card details

As a user I want...

- To be able to add details to cards, so I can define the cards more accurately.
  - Cards will have a description which will be stored in the database.
- To be able to add nested task lists to cards, so that it is easier for me to track my progress inside of a bigger task.
  - Nested tasks will be stored in the database as a data structure.
  - Tasks inside a card can be marked as completed with a single click.
  - User can define as many nested tasks as they want.

## Tag support

As a user I want...

- To be able to add tags to cards, so I can organise my cards.
  - Cards will have a list of tags with which they can be identified.
  - Tags will be stored in the database.
  - Tags will have customisable colours.

## Customisation

As a user I want...

- To be able to add colours and backgrounds to cards, lists and boards.
  - User can change the colour of cards, lists and boards.
  - User can change the background of cards, lists and boards.

# Keyboards shortcuts

As a user, I want...

- To be able to use keyboard shortcuts, so the application becomes easier to use. (eg: When typing the name of a card, if *enter* is pressed the card is created).
  - User can navigate to the next element by pressing tab.
  - User can add a card to a list by:
    - Clicking on an empty space on the list.
    - Pressing control + 'L'.
  - User can edit a card in the list by:
    - Using tab to select what they want to edit (title, description) and typing.
  - User can delete a card from a list by:
    - Using tab to select the card and pressing delete.
  - User can finish editing a card by:
    - Pressing enter.
    - Pressing control + 'S'.
  - User can confirm their choice of key (and password) by pressing enter.

# User interface

As a user, I want ...

- To have a visually consistent and intuitive application, so I can enjoy using it.
  - Have a very easy and gentle learning curve whilst using the application.
  - Buttons should be intuitive and there should be no ambiguity about its purpose.
  - The overall design of the application should look like the mockups at the end of this document.
- To be able to read my tasks quickly, so I can optimise my time further.
  - Have a good clean font.
  - Text should always be big enough to read from a distance. (No getting closer)
  - Font size will automatically adapt to the user's window size.
  - Text contrast ratio should follow the WCAG2 guidelines. (At least 4.5)

# Password-protected boards

As a user, I want...

- To be able to set a password for a board, so only authorized people can edit it.
  - When creating a new board, user has the option to add a custom password to a board such as in the first mockup.
  - If no password is set, anybody with the board key will be able to access and edit the board.
  - When no password is given, the user will receive a popup warning them of the board being read/write for everyone with the key.
  - Password is stored in the database.
- To have a recovery key, so I can change the password.
  - A recovery key will be generated for the user upon creation of the board.
  - When changing the password, this key will be required.
  - If the key is wrong, the user will get a warning.
  - Key is stored in the database.

# Card images

- To be able to add images to cards.

- Upon creation of a card, user can upload an image from his computer or via an URL.
- Image is stored in the database.

## Mocks

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# Welcome back

### Join

Key

Password (Optional)

Join

### Create

Password (Optional)

Confirm Password (Optio

Create

— ×

TODO + ...

Title ...  
Description  
Tag +

Doing

Done

+