

Backlog - Requirements Engineering

1 Stakeholders

- *User* - All users of our application, they are able to create boards using an id/key and modify it.
- *Admin* - A user that can unlock password protected boards, remove or add boards, and restart the server. An admin is also a user at the same time.

2 Terminology

Board Refers to the main screen of our application, contains lists which in turn contain entries.. 1

Entry Refers to a task added to the board, organised on the vertical axis under a specific list.. 1

List Are on the horizontal axis, encapsulate entries.. 1

3 The objective

An overview: We are building a personal task list organizer. The main page is a board that contains lists and these lists, in turn, contain cards that can be added, removed and moved between the lists.

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4 Epics

4.1 Mandatory requirements

1. *As a user* I want an application to manage my tasks, and track their progress so I can organize my thoughts.
 - (a) A Server Application (using Spring Boot)
 - (b) A Client Application (using JavaFX)
2. *As a user* I want my changes to be saved remotely after I exit the application so that I don't have to keep it running at all times.
 - (a) After an application restart the board should persist.
3. *As a user* I want to be able to modify my entries and lists so that I can organize my tasks well.
 - (a) Entries can be added.
 - (b) Entries can be removed.
 - (c) Entries can be edited.
 - (d) Lists can be added.
 - (e) Lists can be removed.
 - (f) Lists can be edited.
4. *As a user* I want to pick a username before entering a board so that authors can be identified.
 - (a) Username input (no registration).
 - (b) You can view the username of the board author.
5. *As a user* I want an intuitive interface so that I can easily use the app.
 - (a) Buttons do what they are expected.
 - (b) Descriptive and concise titles.
 - (c) Simple descriptions.
6. *As a user* I want to be able to order the entries so that I can prioritize them however I want.
 - (a) Entries can be arbitrary ordered, and the order persists.
7. *As a user* I want to have see changes happen in real time so that the board can function much like a whiteboard in a room of people would.
 - (a) Changes are relayed real-time, to all users.
8. *As a user* I want to be able to drag and drop entries so that I can organize tasks in an easy way.
 - (a) Entries can be drag and dropped between lists.
9. *As a user* I want to be able to to join a board(s) created by another user so that we can collaborate on task organization.
 - (a) A board or boards can be join by multiple users and the changes are synchronized.
10. *As a user* I want the created entries to be identifiable by their title.
 - (a) The entries are visible on the board as their titles.

4.2 Multiple boards

1. *As a user* I want to be able to create a new board so that I can have different boards for different projects.
 - (a) Boards can be created by users.
2. *As a user* I want to be able to join different boards so that I can collaborate with others.
 - (a) Boards can be joined by their identifier. (Figure 1)
 - (b) Generation of SHA-1 identifiers for boards.
3. *As an admin* I want to be able to manage boards of other users so that I can administrate the system.
 - (a) Boards can be deleted by admins.
 - (b) Boards can be edited by admins.

4.3 Detailed entries and boards

1. *As a user* I want to be able to add entries with details so that I can organize my tasks better.
 - (a) Entries have descriptions.
 - (b) Entries can be tagged.
2. *As a user* I want to be able to add sub tasks to tasks so that I can group tasks properly.
 - (a) Sub tasks can be added to tasks.
 - (b) Sub tasks can be removed and edited.
3. *As a user* I want to be able to customize entries and boards so that I can make boards aesthetically appealing.
 - (a) A background color can be chosen.
 - (b) Tags can be colored.
 - (c) Font size and color can be changed.
 - (d) Basic font decorations can be used.
4. *As a user* I want to be able to attach media to entries so that I can specify my tasks better.
 - (a) Pictures can be added to entries.
 - (b) Attachments can be added to entries.
 - (c) Both of these can be removed from an entry.
5. *As a user* I want to be able to filter the entries so that I can find entries speedily.
 - (a) Entries can be filtered based on tags.
 - (b) Entries can be filtered based on titles.

4.4 Security

1. *As a user* I can password protect my boards so that unwanted actors cannot edit my boards.
 - (a) A password can be set on a board.
 - (b) A password protected board cannot be joined without the password.
2. *As a user* I want to be able to pick the access level for my boards so that only I can edit it but others can view it.
 - (a) A board can be set password protected for writing (p.p.w.).

- (b) A p.p.w. board cannot be edited without the write password.
- 3. *As an admin* I want to be able to override password protections on boards so that I can access all boards.
 - (a) Password protected boards can be joined by admins with no need for passwords.
 - (b) An admin can change or remove a password to a board.
 - (c) An admin doesn't need a write password to edit p.p.w boards.

4.5 Ease of use

- 1. *As a user* I want to be able to easily edit entry names and properties.
 - (a) All task properties can be edited from the overview. (Figure 2)
- 2. *As a user* I want to be able to edit tasks using keyboard shortcuts, so that I can use the application efficiently.
 - (a) Fields can be cycled by virtue of the "tab" key.
- 3. *As an admin* I want to be able to view all active boards so that I can properly administrate the system.
 - (a) Admins can view a list of all boards.
- 4. *As a user* I want to be able to view who authored some change, and view board statistics.
 - (a) Board history can be viewed, with the authors of changes.
- 5. (very optional) *As a user* I want to be able to view board analytics so that I can gather information about my board.
 - (a) Board analytics can be viewed such as: cards created, activity per week, users connected. (Figure 3)

5 Additional Mocks

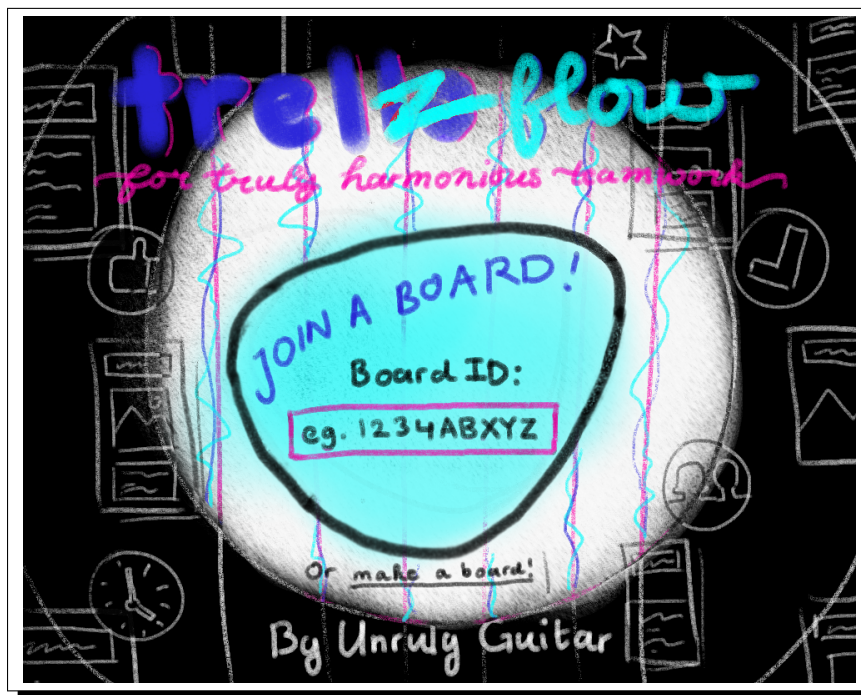


Figure 1: A mock of the join screen

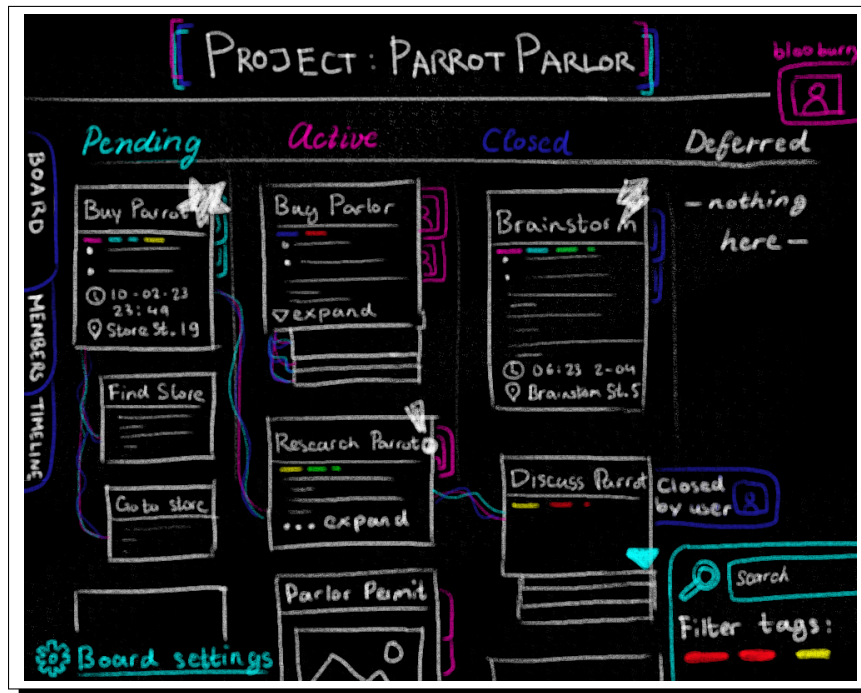


Figure 2: A mock of the board screen

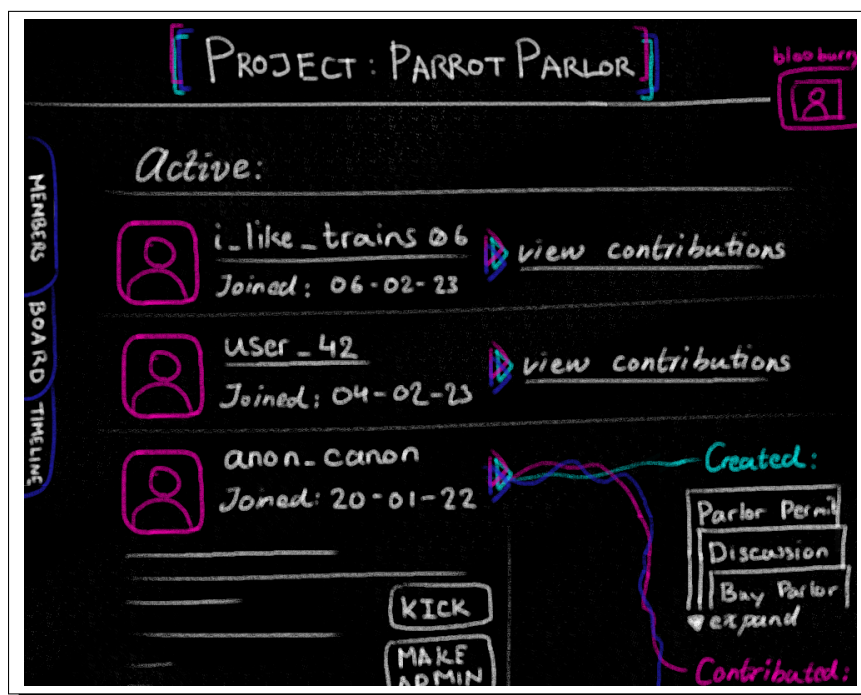


Figure 3: A mock of the analytics screen

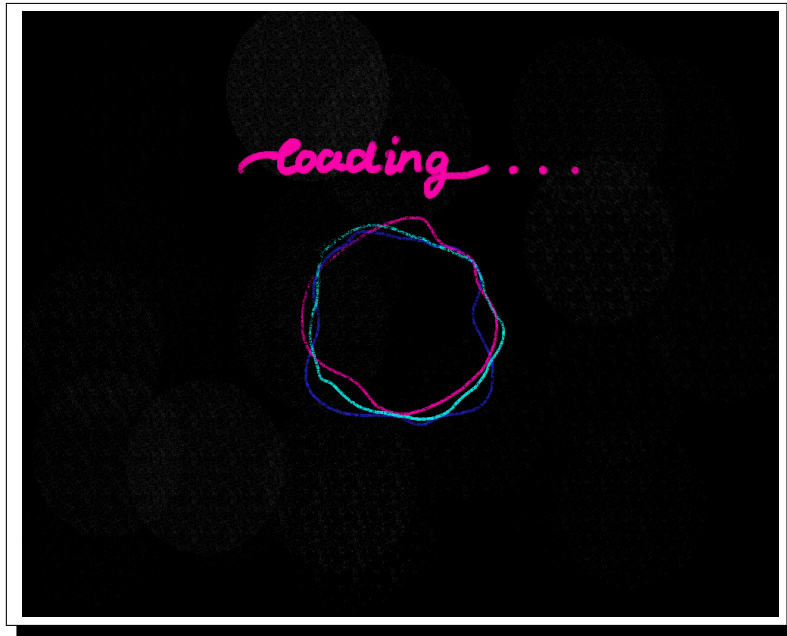


Figure 4: A mock of the loading screen