

Talio Backlog

Stakeholders:

- **User:** A person that can start the client and connect to a server
- **Admin:** A person that maintains the server and represents the contact for users, if there are issues with the application..

Terminology:

- **Client/Server:** Users start a client application on their computer. They can define the IP of the server to connect their application
- **Board:** Similar to a whiteboard, a board can hold an arbitrary number of lists
- **List:** A list is a column on a board. A list can hold an arbitrary number of cards
- **Task:** A task is a single item that can be put into a list.
- **Workspace:** A workspace is a local overview over all boards that a user has added

Non-Functional Requirements

(This section was not requested in the template)

- The application is built with Spring/JavaFX
- Client/Server Communication is performed via HTTP and JSON
- It must be possible to connect at least 10 clients simultaneously
- Change synchronization between clients feels “instant” (takes less than 1s)

Epics and User Stories

Basic Requirements

Note that all(!) basic requirements must be met to pass the course

The basic requirements cover a basic task-list organizer. The application has a client-server architecture. While it must be possible to connect multiple clients simultaneously to one server, the server can only host a single board, which is used by all connected clients at the same time. The appendix contains mockups for the “client connect” and a “board overview”.

The overall metaphor for this stage of the application is that of a Scrum board on which a team can organize post-it notes that describe the contents of a sprint. As such, the application has a single scene that shows an overview of all lists and their corresponding cards. From this overview, it is possible to add/edit/remove lists, add/edit/remove tasks, and drag and drop tasks to change their order and move them between the existing lists.

As a user, I want...

- To connect to a Talio server of my choice, so I can manage my tasks.
- To disconnect a client, so I can switch to another server.
- To connect multiple clients at once, so I can run Talio on my workstation and my laptop.
- To see all my tasks at once, organized in lists, so I can get an overview of what's going on.
- To create new lists, so I can organize tasks in multiple categories.
- To give my lists a title, so I can describe the nature of all contained tasks.
- To rename existing lists, so I can change the focus of a list.
- To remove existing lists, so I can clean up my board.
- To create tasks, so I can formalize the work that I have to do.
- To assign tasks to lists, so I can organize and structure my work better.
- To edit tasks, so I can correct typos.
- To remove tasks, so I can clean up my board when work is done or becomes unnecessary.
- To order my tasks, so I can reflect their priority implicitly through their spot in the list.
- To see any update of others directly reflected in the overview, so I can keep Talio open on a second monitor without needing to manually refresh.
- To drag and drop tasks with the mouse, so I can rearrange the tasks on the board.

Multi-board (highest priority)

Add support for multiple boards to Talio. Each individual board should work the same as described in the basic features, but it should be possible for a user to switch between boards and create new ones as necessary. For ease of use, a workspace makes it easy for a user to switch between several joined boards. The appendix contains a mockup of such a “workspace”.

The metaphor for this application stage is the existence of multiple whiteboards that are distributed throughout a building. When a team needs a new way of coordinating tasks, they can start a new whiteboard in any room. Everybody who knows the room, can go there and interact with the tasks.

As a user, I want...

- To create a new board, so I can organize unrelated tasks in different places.
- To describe a board with a title, so I can express the scope of the tasks that I want to include.
- To rename a board, so I can correct typos.
- To remove a board, so I can clean up when the board is no longer required.
- To copy an invite key for a board, so I can invite others to join a particular board.
- To join an existing board, so I can contribute to boards that were created by others.
- To see a list of all boards that I have joined, so I can switch between them easily.
- To leave a board, so I stop seeing boards that do not interest me anymore.
- My client to remember the joined boards, so I see the same workspace when I reconnect.
- To keep separate workspaces for connections to different servers, so I can switch contexts.
(You do not need to allow multiple simultaneous connections, just store workspaces per unique connection string)

As an admin, I want...

- To use the client app, so I can perform maintenance tasks on the server.
- To use a server password, so admin features are not accidentally used by regular users
(No requirements on how this is realized. Ideas: use a server config file or generate a random password on start and print it in the server log)
- To see an overview of all existing boards on the server, so I can interact with them.
- To delete boards from the overview, so I can clean up the server.

Card Details

Add support for additional task details to Talio. In the basic setting, a task only has a title. Through this extension, it will become possible to open the details of a task and add additional information, like a description and a nested task list. The appendix contains a mockup for opened “task details”. Also note the additional markers for descriptions and task progress in the “board overview” mockup. An important property of the system is that all changes in the system should directly be propagated to all clients, no manual refresh should ever be required.

As a user, I want...

- To add a simple task directly in the overview, so add multiple tasks in a sequence is easy.
- To open task details through double-click, so I can add further details.
- To see a description indicator in the overview, so I know which tasks have a description.
- To see task progress in overview, so I can understand how many subtasks are already done.

As a user that is looking at the detailed view of a task, I want...

- To close the details and return to the overview, so I can continue planning.
- To delete the task, so I can remove tasks from the board that are done or outdated.
- To add a description to a task, so I can provide additional context information.
- To add a nested task list, so I can define required steps for finishing a larger task.
- To add/edit/remove elements in a nested list, so I can update the subtasks as needed.
- To change the order of elements in a nested list, so I can reflect priorities.
- To tick on/off elements in a nested list, so I can indicate which subtasks are already done.
- Changes of me or other to be directly synchronized with all clients, so all overviews and detailed task views on all clients are always up-to-date.
- To return to the overview when the task is deleted by someone else while I have it open, so I do not spend time working on a non-existing task.

Tags

Adds support for task tagging to Talio. Tags can be considered as a classification system and affect both the board overview and task details. Users will be able to maintain a tag list per board and add these tags to their tasks. The high-level idea of this feature is illustrated in the mockups for “board overview”, “task details” and “tag management”.

As a user, I want...

- To open the list of tags for a board, so I can explore and maintain the available tags.
- To add tags to tasks in the task details, so I can mark certain properties for a task.
- To see simplified highlights of tags in the overview, so existing tags are easy to spot.

As a user that is looking at the list of tags for a board, I want...

- To add a specific tag, so I can maintain a good classification system.
- To edit a specific tag, so I can fix typos.
- To remove a specific tag, so I can clean up the list.

Customization

Adds various color customization options to the Talio application. The customization allows to give boards a theme to make them more recognizable. The options also touch previously implemented features, like the board overview or the tag management. The “customization” mockup in the appendix illustrates the color management view that is used to define the general theme of a board.

As a user, I want...

- To open a color management view, so I can define the color scheme for a board.
- To select a color preset for a task in the task details, so I could highlight the task.
- To define font/background colors for each tag in tag management, so I can customize their appearance.
- To pick colors from a color wheel, so I do not have to worry about color codes.

As a user that is looking at the color management view, I want...

- To define the font/background color of a board, so the board can be identified on first glimpse.
- To define the font/background color for lists, so I can make them follow the general theme.
- To reset the background color for a board, so I can revert changes to a reasonable default.
- To reset the background color for lists, so I can revert changes to a reasonable default.
- To add/edit/remove color presets for tasks that define font/background color, so tasks will be colored consistently.
- To promote one task color preset as default, so all tasks will look the same unless changed.

Keyboard Shortcuts

Adds several keyboard shortcuts to the application to make it easier to use. The shortcuts present a cross-cutting concern and integrate with most of the existing features. An important concept for the shortcuts is a “highlight” of one task that puts it into focus, like a colored border or a brighter/darker color for the task. Shortcuts are then executed in relation to this task.

As a user, I want...

- To press “?” anywhere in the application to open a help screen, so I can look up shortcuts.
- To hover with the mouse over a task to highlight it, so I can activate shortcuts.
- To see a highlight of the currently selected task, so I know which task is in focus.
- To move the task highlight with arrow keys (Up/Down/Left/Right), so I can select other tasks.
- To press “Shift+Up/Down” to change the order of tasks in the list, so I can re-prioritize.
- To press “E” to edit the task title directly in the overview, so I do not have to open the details.
- To press “Del” or “Backspace” to delete a task, so I do not have to open the details.
- To press “Enter” to open the task details, so I do not need a mouse to get more information.
- To press “Esc” to close the task details, so I can get back to the overview.
- To press “T” for a popup for adding tags (by mouse click), so I do not have to open the details.
- To press “C” for a popup for color preset selection (by click), so I do not have to open the details.

Password Protection (lowest priority)

Adds password protection as a feature to boards. Any user can lock any board with a password. Only users that unlock the board by providing the password are able to change anything (incl. tasks, tags, colors, ...). Users that do not provide the password can still open the board in read-only mode.

As a user, I want...

- To see a lock symbol in the board overview, so I know the protection status of a board.
- To click the unlock symbol and provide a password, so I can unlock write access to the board.
- To click the lock symbol and provide a password, so I can lock a board.
- The client to store the password locally, so boards get auto-unlocked when I open them again.
- To change or remove the password of a board, so I can alter the access level.
- To get a popup when I try to edit a task on a protected board, so I realize that I cannot change it.
- To see a read-only warning in the details view of a task, so I realize that I cannot change it.

As an admin, I want...

- Change/remove passwords of password protected boards, so I can help users that have locked themselves out of their boards
- Delete password-protected boards, so I am not hindered in any clean up activity

Mockups

All mockups are used to illustrate the vision and to ease the feature description. The final UI does not have to look exactly like the mockups and can visualize the functionality in a different way, as long as all requested functionality is covered.

Client Connect

Server Address:

Board Overview

TODO

Setup team repositories X

Get lunch X

Task with description X

Has Subtasks (2/3 done)

+

Doing

Give lectures X

Done

Prepare slides X

+

Task Details

Prepare lecture slides X

I still need to polish the lecture slides for several upcoming lectures.

Tasks

☒ Collaborative Software engineering X

☐ Git Assignment X

urgent (x)

teaching (x)

+

Workspace

Create/join new board:

Add

Your Boards:

- Tasks for Lectures Open
- Research Open
- Household Chores Open

Tag Management

Tags for this Board:

- Feature Request x
- Bug x
- Urgent x
- This is a tag x

Add tag

Customization

Customization

Board Colors

Reset

Background



Font



List Colors

Reset

Background



Font



Task Colors

B F

• Highlight



set as default

• **Some Colors (default)**



• Less relevant



set as default

