Introduction

This is an heuristic usability evaluation of an application aimed at providing the user with a list of reminders and a board within which to organize said reminders. We are aiming to determine the viability of our current prototype, and weed out any problems with our design's usability/ functionality in order to be able to address and improve this. This report will lay out our findings and potential improvements found, as well as our methods used to acquire these conclusions.

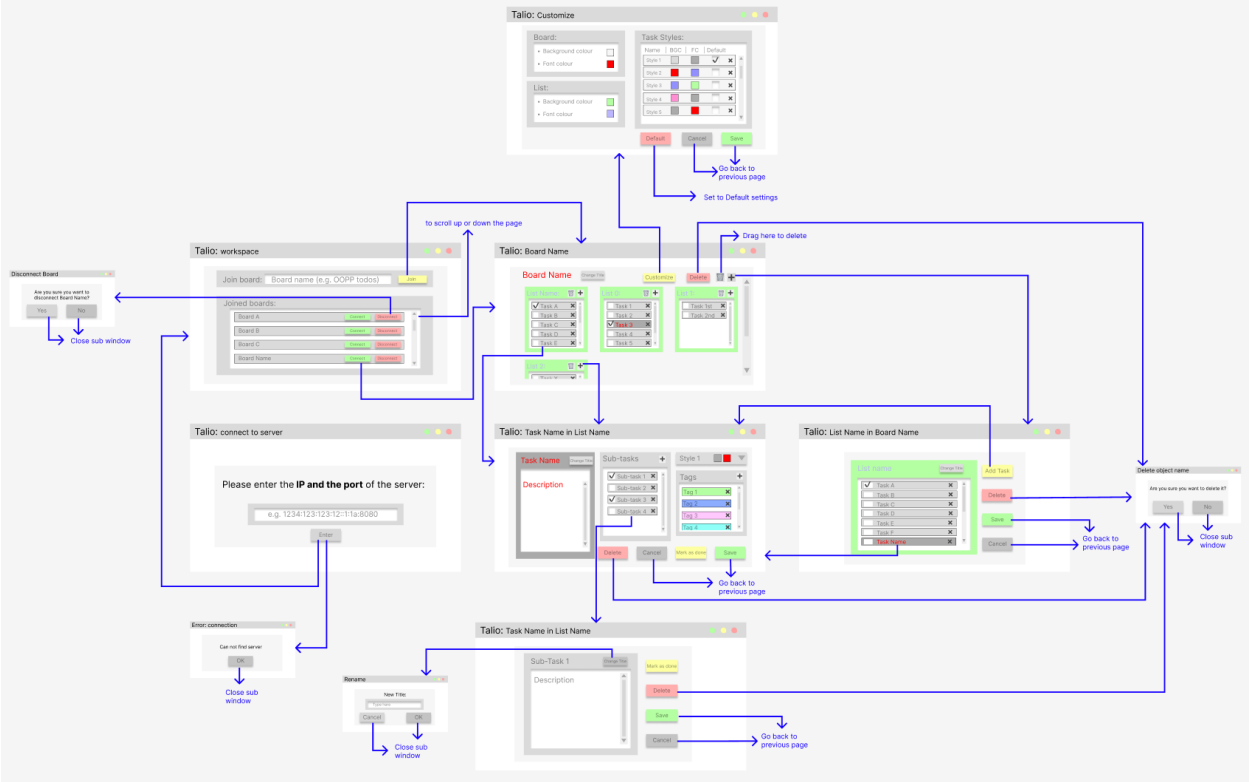

Figure 1

An overview of the prototype in question can be seen pictured above in figure 1. The prototype illustrates a user's flow through the program using a number of arrows to indicate what a certain function/ action will lead to. The prototype is filled with some sample data in order to illustrate what the UI would look like once filled with data, and how it may scale with displaying more or less data. Every separate view in the prototype corresponds to an actual view/ window that will be implemented in the final design, thus giving our reviewers an accurate perspective as to what it would be like to use the program.

Methods

Our prototype was evaluated by experts in the form of partner group 40. Group 40 had 6 members of varying experience. The experts were knowledgeable in java, and UI design. Our group made a prototype for our program in powerpoint form. The prototype had buttons that allowed navigation between slides. Given our prototype the partnered group took a number of steps to evaluate our UI design. We scheduled a meeting with our partner group and sent them

our prototype the day before. Our partner group on their own time looked through and evaluated it. In their private evaluations they wrote notes to mention during the meeting. During the meeting one member of our group (Daniel Langov) met with the other group to present our prototype in person. The rest of the group members met with a member of the other group to evaluate their prototype.

During the meeting the group gave their previously noted suggestions, and new suggestions. After the meeting the experts from our partner group formulated a document with all their suggestions. The document included color coded suggestions to show importance. This document was then sent to us for us to use towards improving our project. They evaluated our prototype with certain heuristics in mind. They focused on suggestions that would improve user usability through making actions more clear, and user errors more avoidable and fixable. Using these heuristics the experts were able to give us a clear and helpful evaluation to improve our UI. The experts collected data in an organized manner to make it clear where the improvements could and or needed to be made. They organized the evaluation into 6 sections focusing on 4 of the central parts of the project, a 5th miscellaneous section, and a section called Tops which notated things they liked. The suggestions were written in the form of quick and concise bullet points that explained what needed fixing and a suggestion as to how to fix it. The bullets were written in ascending order of importance to show what they really thought needed changing, mutating, and or fixing to things that would be nice to have. They also further color coded many of the suggestions allowing for better readability and understanding of importance as well as displaying what issues could be seen between different parts of the project.

Results

As stated earlier the suggestions from our experts came in the form of a document containing bullet point suggestions for different sections. Here we will summarize the results received from our experts, partner group 40. They gave feedback on our boards lists and tasks, as well as a miscellaneous and pros section.

The experts had a number of criticisms for our boards to improve user usability. They suggest that we make it more clear that a board is an empty board by labeling it as an empty/untitled board. They also suggested adding a scroll bar to our board menu drop down to allow for easier visualization of the boards that can be used. They also suggested adding confirmations to disconnecting or changing to other boards. Another suggestion that was made was to make it more clear when the workspace did not have any boards yet.

They suggest that our lists should have a scroll bar to allow for better viewability for the user.

The experts also suggested a multitude of changes to our task UI design. They suggested that we should have a cancel button for editing the tasks so as to be able to return to the unedited version of the task. They also proposed to make it clearer how to get to the edit tasks scene. A clearer way to delete tasks was suggested as well. The experts also stated that the ordering of the tasks should be made more clear to the user, as well as how the user can change this ordering. They put a focus on the tag feature stating that it should have a scroll bar when a large amount of tags are present. They also suggested that we increase users' ability to add tasks more clearly.

A number of miscellaneous suggestions were made. The experts stated that we should fix the resizing of the scene when we go into edit mode. They suggested that we consider the locations of buttons to make them more consistent, noting that our prototype had many buttons scattered in different places for different scenes. The evaluation also showed that we should fix the login as an admin feature. They also suggested we consider customizable color options.

There were a number of general suggestions made about multiple features. These suggestions were meant to increase user error prevention and user usability. The experts suggested that we add confirmation pop ups whenever disconnecting from a board, or deleting/saving information. Another suggestion made was how to deal with longer title lengths by adding a character limit or handling them some other way. They also suggested we add popups to ensure all new boards, lists, and tasks immediately had a title.

The experts also kindly mentioned a number of pros in our UI design. They liked that our prototype was functional and that it was easy for the user to understand where in the app they were. They also stated that the language used was both consistent and user friendly. These pros are nice to have as they show us what we should keep consistent throughout all the changes we make given from their other suggestions.

No changes were made to their suggestions as they were given to us in bullet format organized by importance and area of prototype. The suggestions were simply written in sentence format to have a clearer understanding of what had and needed to be done.

Conclusion & Improvements:

Across the application based on our own observations, and criticisms from our experts we can conclude that the feel, for lack of a better word, of the UI is rather pleasant and good as it stands. We can extrapolate this from the positive results regarding user-friendly language, consistent naming/UX, and the ease of orientation for the user. Nonetheless, our design is far from perfect and we have identified some room for improvement, both across the entirety of the program as a whole, and the 3 main subcomponents of the program.

Across the program as a whole an important point that we will address is the lack of notification to the user when they are to perform potentially dangerous actions, such as: confirmations for deletion. Another shortcoming that came out of this investigation was the lack of user input requests, for instance for new titles. It should be made more clear to users that they have the ability to add a title when a new board, list or card is created. An additional result that was brought forth in our investigation was the lack of undo/redo functionality, we have however opted not to implement this due to the limited scope of our application and its requirements.

In conclusion, while our current UI design certainly has some good aspects that we will carry forward, we still have quite a lot of particular shortcomings to address and improve. Firstly, we will address the confirmations for deletion, by showing the user a notification box pop-up when they attempt to delete a resource, this pop-up box will request for the user to confirm they would in fact like to delete the relevant resource. Next, we will add a pop-up box requesting the user to input a title when they create a new resource to address the potential miscommunication that was addressed by the investigation. Another change that will be made to transition the prototype into a final design is hiding the username and password fields when the ‘login as admin’ toggle is not selected, since this may confuse users.

In the board management UI we will also make improvements namely; We will add a display with the text; “This is an empty board, create a list by hitting the ‘+’ symbol in the top right corner” on a board when it is empty, in order to indicate to the user that the board is empty, and how to change this. This will aid in the clarity of communication between the program and the user, allowing the user to more easily identify if they are in fact on the right page. And allowing the user to more easily navigate around the program. Similarly to the board empty display we will do the same thing to empty workspaces displaying; “This is an empty workspace, create a board by hitting the ‘+’ symbol in the top right corner”. Next we’ll add a confirmation pop-up, similar to the deletion pop-up, when the user attempts to disconnect/ change boards.

In the list management aspect of the UI we will add a scroll bar (horizontal) since otherwise when the amount of lists gets larger than the width of the window they will simply become inaccessible.

In the task/ card management area of the UI we will add a clear button on each card that leads to the card editing UI since there was no way to reach this before. Also currently there is no way to backtrack from entering the card editing UI. We will add a cancel changes button in order to allow the user to be able to return to the state that the card was in before they started editing.