# Introduction

Making sure all data is consistently formatted and all stored in the same location can be difficult, especially in the case of tutors. They already have several options with positives and negatives, you can’t beat the convenience of just taking attendance on a piece of paper, but this can be easily lost and needs to be digitised later. Then there’s just putting attendance straight into mylo but with it’s less than ideal UI, but consistent formatting and having all the data in one location is a big upside. So with this in mind I was given the daunting and perilous task of creating a mobile app prototype with the convenience of paper and the data storage of mylo. The app

# Usability Goals and Design Principles

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# Testing Methodology

For gathering users, I predominately just asked close friends who had time available. This introduced several biases straight away as the users would be bias towards the design knowing that I made it, making them potentially speak more favourably of the design. Also, none of these users were tutors so that is another issue with this user set, they are not accurate to the actual user base the app is designed for and as a result, they would potentially have no reference point of similar solutions or the actual use cases of this app. The users were also all aged 20 to 22 and almost all attended university, this highlights a bit of a lack of diversity as all the users were fairly tech literate people from maybe slightly higher than average socioeconomic standing.

For user testing I used remote talk aloud testing over Discord that I recorded with OBS after getting the user’s consent. This was due to covid safety and the convenience and easy recordability of the tests. I first ran the users through what the app was and what it would be used for, then I explained that we would be doing talk aloud testing and what that entailed. After this I ran the users through the test tasks, these test tasks were:

T1: Bob Roberts has been accidently added to the class instead of Robert Bobs, remove Bob and add Robert instead.

T2: Bob Roberts is bragging about getting an A in week 3, find his grade to see if he deserves to brag or not.

T3: All the tutors are having a bet on which tutorial got the best average mark in week 4, find your average for that week to see if you should bother to participate.

T4: Week four has been configured incorrectly, change it to use a score instead of a grade.

T5: You've just finished the week 4 tutorial, give Bob Roberts his grade of a B.

These test tasks were to check if the app meet the following success requirements:

R1: Remove a student.

R2: Add a student.

R3: Add a grade to a student.

R4: Students have an ID and name.

R5: Summary of marks each week.

R6: Summary of marks for each student

These requirements and test lead to the tasks matrix that is figure 1 in the appendix.

To round things off I ask each user if they had any final thoughts to gather any last-minute feedback and get their overall thoughts of the prototype.

During this user testing I gathered both qualitative and quantitative data in the form of feedback from the users and noting where mistakes were made for qualitative data, and for quantitative I took timings from the recording for how long it took each user to finish each task. This data can be potentially used to make comparisons to future revisions of the prototype and app to get a rough idea of if the improves have made the app more useable and/or efficient. Ideally for good quantitative data I would need many more users to test to smooth over the data and find a more realistic average from the data, I would also most likely need to run separate user test to get truly accurate timing data so that I could not do talk aloud testing as this will most likely add more time to the test as the users might spend more time trying to articulate what they think (Budiu, 2017).

# Testing Results and Discussion

Overall, the user feedback and testing went very well. There was one reoccurring piece of feedback that I got from all the users that was it was not obvious that the lists of student’s grades on the student page and the list of students and their grade on the week page were clickable, so to help with this I added arrows at the edge of each item in the list to indicate that a listed item is clickable similarly to how Reddit does in it’s settings app.!!!!! Add reference to reddit design and add screenshots showing change!!!!!!! I also made all the list have consistent styling to further help show that all the lists are clickable.

# Conclusion

Having survived my perilous task of sitting at my computer, drawing some things and then talking to people, we have a complete prototype with one user feedback and revision cycle.

# References

Budiu, R., 2017. *Quantitative vs. Qualitative Usability Testing*. [online] Nielsen Norman Group. Available at: <https://www.nngroup.com/articles/quant-vs-qual/> [Accessed 17 March 2021].

# Appendices

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Tasks Matrix | | | | | | | |
| Requirements | | | | | | | |
| Tasks |  | R1 | R2 | R3 | R4 | R5 | R6 |
| T1 | x | x |  | x |  |  |
| T2 |  |  |  |  |  | x |
| T3 |  |  |  |  | x |  |
| T4 |  |  |  |  |  |  |
| T5 |  |  | x |  |  |  |

Figure 1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Time Users Took to Complete Tasks in Seconds | | | | | |
|  | Task 1 | Task 2 | Task 3 | Task 4 | Task 5 |
| User 1 | 63 | 10.28 | 23.48 | 10.53 | 38.28 |
| User 2 | 30.48 | 7.77 | 20.76 | 34.04 | 32.61 |
| User 3 | 88.32 | 14.55 | 31.04 | 31.8 | 26.09 |
| User 4 | 46.67 | 27.7 | 31.39 | 30.53 | DNF |
| User 5 | 34.36 | 8.45 | 11.76 | 20.92 | 21.66 |
| Average | 52.57 | 13.75 | 23.69 | 25.56 | 29.66 |

Figure 2