Deliverable D Group C2.4

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Abstract

This is a document that presents the first prototype for designing a mousse skill application. Included in this document is an explanation of our prototype, the method used to create it, and a description on its objective. This document will also contain a set of values to compare our prototype with our initial target specification. There is also an overall description of the upcoming prototypes.

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1. Introduction

Using the feedback from both client meetings, and the feedback from our TA and lab instructor, our team has created a working prototype using Figma, a web-based interface design tool (access using link below). The prototype was tested with people of different ages and cognitive abilities, similar to that of our client. This deliverable will cover what we will be presenting to our client during our next client meeting, and what information we are looking to derive from the next meeting. This deliverable will also provide a more in-depth description of our prototype, and what changes we plan to implement going forward.

2. Description of Prototype 1

Prototype 1 was developed in order to represent the concept of our design. Indeed, the team built a proof of concept of our mouse skill application design through Figma which is a web-app software that allows the development of interface sketches. This allowed the team to easily visualise the intended concept that we have designed, and it helped us determine some issues that were initially not apparent to us. As a result, this prototype falls into the physical and comprehensive prototype category. Indeed, it represents an overall understanding of our design concept. Hence, we have determined that this concept is of low fidelity due to the lack of detail in it because it was built in order to have a visual description of the design. In other terms, it is far from being a fully implemented concept of our design since we have yet to create the tutorials, exercises, progress tracking and adaptive difficulty subsystems.

Moreover, the objective of this prototype is to communicate the design concept that we have developed. The team decided that our first prototype should have a communication objective because we need to reduce the confusion between us and our client. In other words, it is crucial for both stakeholders to have a similar understanding of the concept to be able to move forward without having issues or misunderstandings. As a result, we can clarify vague information and validate our detailed design.

Furthermore, prototype 1 initially had a communication objective. However, we have integrated a second objective while prototyping and testing which is the learning objective. For a matter of fact, while prototyping, we were able to evaluate our design concept by comparing it to our target specification and by validating the requirements that were initially set to be integrated in our concept. We were able to learn more about our design by determining a set of values for our target specifications. Finally, this prototype was very useful to determine any issues by letting people, such as the team's family, test it and give us their feedback on it.

3. Prototype Documentation

This is a documentation of our prototype 1 which is a proof of concept of our design. Indeed, we have inserted screenshots in order to demonstrate that we were able to communicate and learn from this prototype.

Figure 1: Prototype 1 Tutorial subsytem

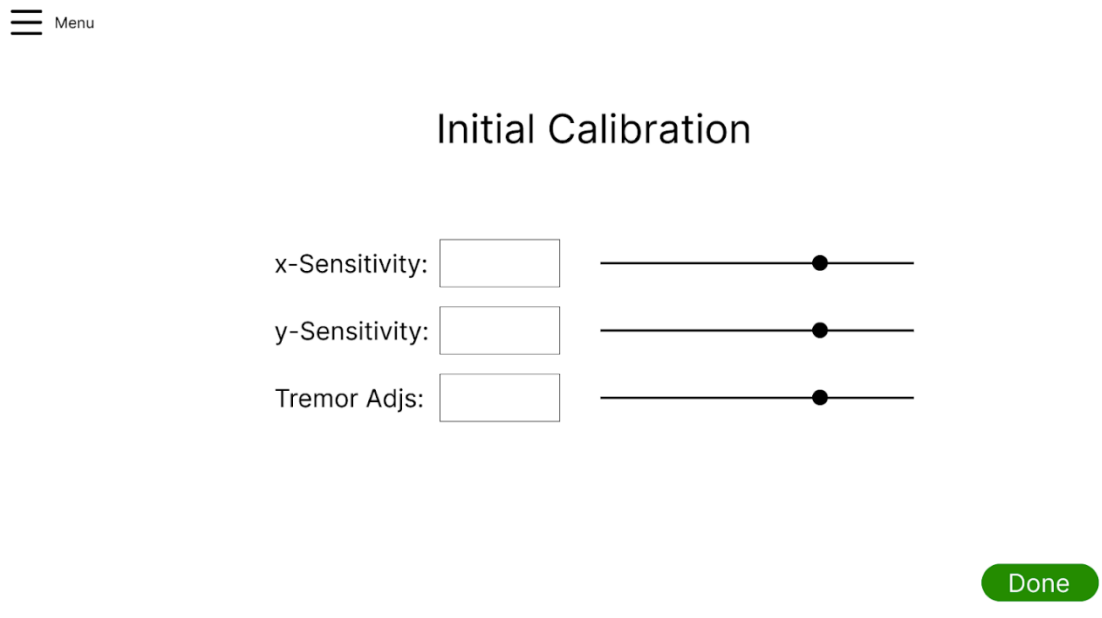

Figure 2: Prototype 1 Mouse calibration

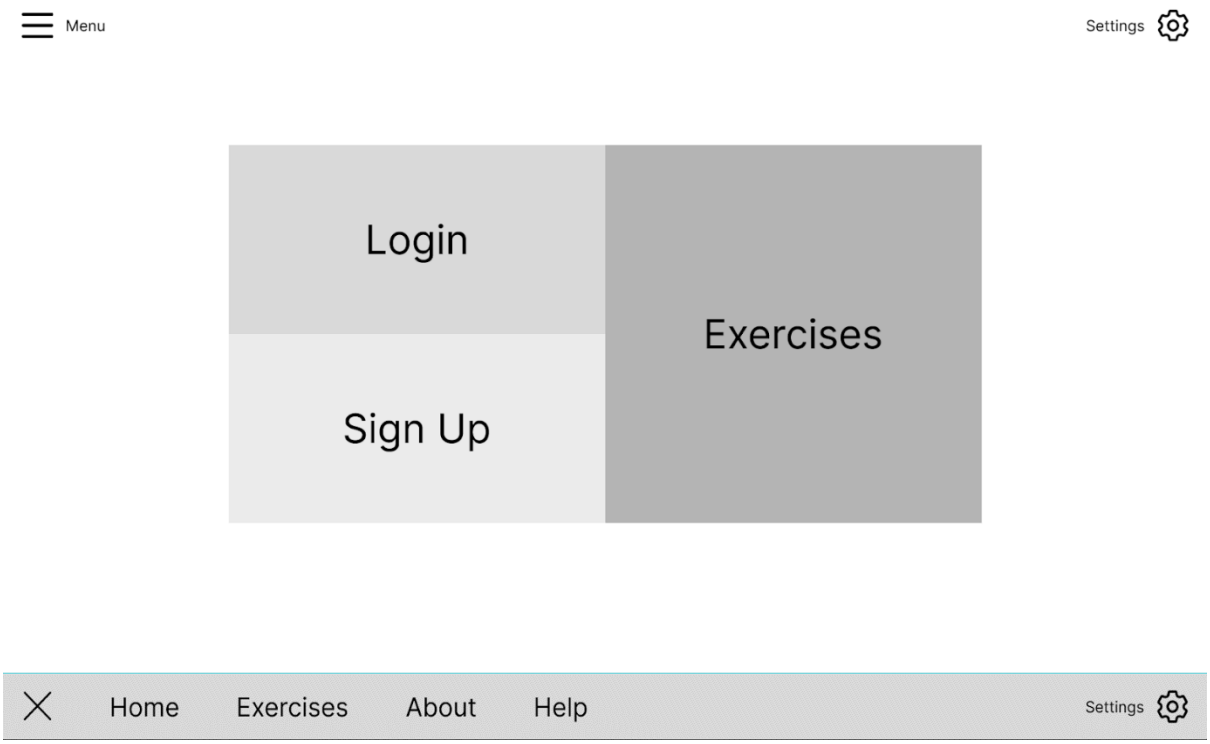

Figure 3: Prototype 1 Menu

Here is a link of our Figma Prototype:
https://www.figma.com/proto/MaVNLJsS7EUlsQQRfFIsbI/GNG-2101-Project-Wireframe?node-id=2%3A12&starting-point-node-id=2%3A12

3. Prototype Testing

The testing of our product was conducted by each teammate, as well as friends and relatives of our teammates. The age range of testers is from 10 to 77 years old. As our client stated, the users of our product are adults, however we decided it would be best to have testers of all age ranges to get the opinion of a broader dynamic, however the opinions of our adult testers was taken into more consideration. Based on our testers experience, we asked the testers to rate target specifications, from 1-5, as our team did. We compared the results to our stated target specification stated in the previous deliverable. We also invited our testers to provide any comments about the prototype. The results are as follows:

User Interface Complexity:

Test Result: 2.5

Ideal Target Specification: 2

Marginal Target Specification: 1-3

Difficulty of Tasks:

Test Result: 3

Ideal Target Specification: 2

Marginal Target Specification: <3

Number of Unique Modules:

Test Result: 3

Ideal Target Specification: 5

Marginal Target Specification: <7

Recommended Age:

Test Result: 16+

Ideal Target Specification: >18

Marginal Target Specification: >15

Some notes, quotes and comments from our testers:

- "Maybe should consider making product into a game format."
- Not exciting for children or people with low attention span
- Needs more tasks.
- Good job with including all of the different mouse functions.
- "Boring"
- A video tutorial would really help.
- Instructions should be read to the user.

After analysing our test results, our team understands that a lot of the feedback revolves around features that we plan to integrate into our future product, such as tutorials, and a "text to speech" reader. These were not possible to include in our first prototype, as our team is under time restraints. However, going forward, we will consider these results to tweak aspects such as user interface, and difficulty. Overall, we are satisfied with the findings and find them fairly consistent with our target specifications. We will use the same testing technique with future prototypes to get feedback as new features are developed.

4. Team Intentions on What Will Be Presented to the Client

By the time we have our final client meeting on February 27th, we intend to have the following things ready to present and show to our client. In the first client meeting, we came in with the intention to learn more about our assignment. Due to this goal, we each showed up to our lab with 10 questions each and yes, some overlapped but our questions combined with the other groups' questions gave us a lot of valuable information that we ended up using to prepare for our second client meeting.

During our second client meeting we came prepared with various concepts, subsystems and interpretations of what the client, Computer wise, has told us from our first meeting. In this meeting we had a goal of figuring out what overall concept that Computer Wise liked the most but also what subsystems they liked the most and if there was a way, we could incorporate these subsystems into the selected concept.

Now, for our third meeting, our goal is to show Computer Wise a bare bones final product with a few basic and functional mouse lessons. We are not intending to have functional sensitivity, colour controls or any other controls that "make life easier". We are simply intending to have an application that is able to open on **our** computers, the application should have the ability to allow the user to click the "Exercises" button and click again on one of the 3 basic and functional exercises that we will create. With what we are showing Computer Wise, we are intending to have one of the people at Computer Wise attempt to use our application. After they use our product, we hope that they will provide us with any feedback, specifically feedback on if our exercises are too hard or too easy. With this, we also hope to receive feedback on the types of exercises or applications we have created to see if the exercises are too childish or demeaning in any way. This feedback will be crucial when completing our final design and will allow us to get Computer Wise a practical and usable end product.

5. Information that will Be Gathered Form Client Meeting 3

Going forward, the following information will be necessary to obtain from the client in order to better fit the need of the clientele:

- Based on our prototype so far, what element did you like/dislike as well as why?
    - This will help gauge the client feedback in order to better be inline with the client goal.
- If it's possible to allow one of the users at Computer-Wise to test our app? If so, how complex is the front webpage?
    - This will allow us to gauge if our definition of a simple and intuitive UI is inline with the user experience when first navigating our website.
- Are the users able to read what is being displayed on the screen?
    - This will help with the accessibility features of our website.
- Were our exercises easy to comprehend? Was there any part of the exercises that did not test your abilities adequately? Example, were the exercises impossible to complete?
    - This will allow us to set the difficulty of our exercises in a realistic manner that will not infantilize the users nor make it seem like it’s an impossible exercise to achieve.
- Was the tutorial at the beginning helpful? Did you prefer the 3-D visual representation of the mouse or the videos?
    - Due to time constraints, whichever the client and user prefer will be the method prioritised.
- How does the user connect their accessible mouse onto the computer and how does it translate eye movement into mouse operation.
    - This will allow us to see if our web application needs to take into account the special connection type as well as how big should the icons be in order to accommodate the device.

All questions are to be asked to the client as well as the users in order to better streamline our product and allow to achieve the ultimate goal of introducing mouse operations to inexperienced users.

6. Wrike Gantt Snapshot

https://www.wrike.com/frontend/ganttchart/index.html?snapshotId=7BRwAWv1cjbBtEfnkfl9beq8hGcKva9F%7CIE2DSNZVHA2DELSTGIYA

7. Conclusion

This deliverable acted as a good layout of the next steps our team will take. These steps include improving our existing prototype, preparing a prototype presentation for our next client meeting, and ensuring each team member learns the basics of website coding to be familiar with our products fabrication. We plan to use the information gathered from the next client meeting to solidify our concepts and start creating high fidelity models which will more closely resemble our final product.

8. References

Link for Prototype On Figma: https://www.figma.com/proto/MaVNLJsS7EUlsQQRfFIsbI/GNG-2101-Project-Wireframe?node-id=2%3A12&starting-point-node-id=2%3A12