This report will be graded based on the evidence the report provides of how your group carried out user testing and learned from the process.

<u>User Testing Plan:</u>

Who are our users?

Participant number one: Akalie

Interviewer: Gabe Molitor, Technology: Matin Horri & Nathan Kohane, Notes: Dida Jarso

Participant number two: Ben

Interviewer: Lorenzo Vega, Technology: Matin Horri & Nathan Kohane, Notes: Elliot Woolley

Goals of the test

- Ask the user to accomplish specific tasks using the interface; observe where the user has issues, makes errors, etc.
- Determine whether participants can complete tasks successfully and independently.
- Assess their performance as they try to complete tasks, to see how well our design works.
- Review the interface with the user to get feedback about how well it addresses their needs, and see how much users enjoy using it.
- Identify problems and their severity
- Improve the interface based of user's feedback

Testing Plan

Introduction: Thank you for agreeing to participate in user testing for our note taking application. Please remember that we are not testing your ability to use the software, but the software itself, and that any and all feedback you can offer us is valuable. We also ask that you think aloud while using the software, so that we can gain more insight into how someone might use our app. We will be recording notes based on events that happen during the test, but these notes will not be tied to you in any way. Additionally, these notes will be deleted once the project has completed. Finally, we would like to remind you that you may choose to end the test at any point during the session for any reason.

***************** New User Instructions *****************

User Instructions:

- Log in to their account
- Choose between light and dark themes
- Open the corresponding folder for the class you're attending
- Create a new document for the topic being covered in lecture
- Add a photo icon/label for the document
- Take notes of what is on the powerpoint, making sure to format how you think fits best
- Add an image to the side-bar
- Ask the user what they thought worked and didn't work with the prototype.

Note: the user instructions were changed to better fit the scenario we wanted the user to accomplish during user testing. We made the instructions simpler, added in instructions to use the extra features we had added, and we also accounted for any bugs that had surfaced during development to prevent any hiccups or crashes

***************** Old User Instructions *****************

User Instructions: Ask the user to direct their attention to a laptop with a powerpoint presentation. Then prompt the user to create a new subject. Next, tell the user to open the subject and take notes of what is on the powerpoint, making sure to format correctly. Finally, ask the user to add an image to the side-bar. Finally, ask the user what they thought worked and didn't work with the prototype.

Team Roles: The interviewer will directly interact with the participants, giving instructions and encouraging the user to think aloud. Gabe or Lorenzo will act as the interviewer in each of these tests. As the group member most familiar with the prototype, Nathan will be in charge of monitoring the prototype in all tests. The application will be loaded on Matin's Android tablet, so he'll also help make sure the technology runs smoothly in both tests. Dida and Elliot will each take notes on one of the tests.

Challenges: If a user manages to break the prototype in a way that is unrecoverable, then we will step in to reset and/or remedy the situation. However, if a user finds themselves stuck in a situation that isn't catastrophic to the prototype's functionality, we have decided to let them try and solve the problem themselves. If the user encounters such a problem, we will encourage them to vocalize and talk through their thinking as they try to solve the problem. If the user is unable to solve a non-catastrophic problem themselves, we will step in and reset the situation. Since our focus is mainly on simplicity and ease of use, we will try to be as hands off as possible during our user testing.

User Testing Notes 1:

- Log in to their account
  - Guesses that settings is used to login, navigates to account
- Choose between light and dark themes
  - Chooses theme without difficulty
- Open the corresponding folder for the class you're attending
  - Opens folder without difficulty
- Create a new document for the topic being covered in lecture
  - Creates new chapter, carefully matching the chapter title
  - Noticed that they put Chapter 5 instead of Chapter 6, Asks if they can rename chapters
- Add a photo icon/label for the document
  - Hesitates before clicking to add an image, does not seem certain
- Take notes of what is on the powerpoint, making sure to format how you think fits best
  - Overview
    - User takes notes, putting each slide bullet point on a new line.
  - Upper Respiratory Tract
    - Puts highest level of slide bullet points in a top level section, puts the next level of bullets one section deeper
  - Lower Respiratory Tract
    - User would like to use bullet points and indentation. User would prefer this instead of adding a deeper section.
    - User puts the bronchi, bronchioles, and alveoli in a new subsection of this section
- Add an image to the side-bar
  - User adds an image to the side-bar
- Ask the user what they thought worked and didn't work with the prototype.
  - They liked that they could add subheadings. "It makes it so that you can see every topic broken up
  - It would be nice to be able to have more than one picture for each topic
  - Brought up bullet points again.
  - Would like more formatting in general (highlighting, color changes, etc.)
  - They liked the light and dark themes.
  - They liked the ease of adding photos, compared it to Google Docs, citing that this formats them better
  - Would like headings to be editable
  - Would like to draw, would sometimes prefer drawing to typing

User Testing Review 1:

Overall this user test went well. Sitting with someone who is using our application and thinking out loud is highly valuable. We were able to witness some insightful thoughts and actions about our project. A small challenge from user testing was that we were unable to see what the user was typing while they were typing. We have what they wrote down saved, so we do have access to it, but writing notes about what they wrote in real time proved to be difficult with our setup. Another challenge was getting our user to think out loud all of the time. Especially for a task like note-taking, as that's not a task where someone typically thinks out loud. It's important to note though that a user may perform differently while thinking out loud, so perhaps it's best to only ask some users to think out loud and let the others interact with the application naturally.

What We Learned

We learned what worked with our application and what didn't work with our application. User Login could be its own icon instead of buried under Settings. Some users liked the hierarchical note-taking feature, stating that it makes it so that you can, "see every topic broken up." Other users shared that they didn't see the point, as they could type all of their notes in a single box. A user misnamed a chapter, and pointed out that there's no change name feature. Our users also expressed a desire for multiple images and more formatting options (highlighting, bold, italics, bullet points, etc.). Some Users liked the theme options and praised how easy it was to add photos. They compared adding photos to Google Docs photo adding, which struggles with image placement and surrounding text placement. A user also showed interest in drawing instead of typing. Their expectation with a tablet is that they would be able to draw/write instead of being confined to typing. We learned the importance of having many testers, as each user will interact with an application differently. Some may love a feature or find it intuitive; others may dislike a feature or find it confusing or unnecessary.

User Testing Notes 2:

Log into account: User pressed account, put in information and submitted it with feedback

Choose a different theme: User chose the theme, pressed dark, dark theme was on.

Create a new document: User pressed add chapter, typed in "The Respiratory System", pressed ok

Add a photo icon: User pressed on the thumbnail, added photo. Went back as well

Write notes on Overview: User pressed on main note space, typed in a few notes using the touchscreen.

(Upper Res): User did not initially press subsection, and put in notes into the main body. User claimed that they were hoping that there was a way to indent information.

(Lower Res):

Users still did not add subsections, and instead tried inputting information into the main body.

Showing User The App

User noticed the subsection button, but he believed that it would have been another "Add Chapter" button like in the main menu. He stated that people could make it more clear like "Add subsection".

Comments: "I don't know how I would really use this". Stated that maybe for specific diagrams it would be useful.

Q. What makes it inconvenient to use?

- For learning less content it wouldn't be useful. Maybe if there was more content it would be useful. I also suck at using tablets. "If I could take all my notes in the main box, why would I separate them?".

Closing Thoughts?

- User went through the app and checked out the settings page for each button, and was able to navigate to and back easily.

Did you find some parts easy or hard to navigate?

- User expected that when you press on a chapter that it would open automatically, instead of pressing open.

- It's organized nicely, and it allows for easy organization. However, for them it wouldn't work out since they don't "organize them as nicely".

User Testing Review 2:

This test was a difficult one. On one hand we got to see how a user would go into our app blindly, but on the other hand it displayed a big issue that we would need to tackle in the future. Having the user complete the notes without using the main functionality of the subsections showed a lack of clarity in our app. This was a challenge, as even the user brought up how it would be helpful to include indentation for different sections in the notes. Therefore the user was not able to fully understand our app. Although we had that issue come up, this helped us know how to improve our application. By seeing how the user didn't use the app correctly, we found that by adding clearer button labels like "add subsection" instead of "add chapter" would prove to be useful, and also that adding a way to guide the user would prove to be beneficial.

What We Learned

The main takeaway from this user test was that clarity is key to a successful application. In our prototype, when one of the users tried to type notes in the note screen, they did not press "Add chapter" to add a subsection to the notescreen, and just typed out everything in the main body. This went against our purpose of the note app, and it wasn't utilized to its full potential. Once we prompted the user in the end about how they were "supposed" to input the notes, they saw how we planned for them to write. This contrast from the first user test showed us that the application is not as simple without instructions as another program may be, even with labeling the buttons. The user also stated that they personally wouldn't use it, but they could see it being useful if there are multiple diagrams to take notes on. They were not our target audience of medical students, which would have to deal with diagrams often. Therefore keeping our focus there seemed to be the correct move. Another thing we found as well was that navigating the application seemed to be easy for the user, and that if there were less notes to write then the user might not find a use for splitting them into big

subsections. Overall, if we spend more time on trying to guide the user on how to use the program effectively, they may be more inclined to use it, and will end up with less confusion. This could be done with a tutorial for first-time users or a help section in the app.