Hello, my name is Vishva Desai welcome to HCI class CS 6540. We will be implementing the Think Aloud Protocol. To inform you, in this exercise, you have to go to kobo.com and login with the credentials provided in the notepad below. You will choose a free ebook and read the first few pages using the desktop app. As your doing these steps you will need to speak what actions you are performing. This exercise will take about 10-15 mins . This exercise will not reveal your name and identity, will not record you but only your voice and the screen in front of you. This recording will be shared with the University of Utah and will be stored and uploaded on GCloud. The recordings will be used for educational purposes only and will be destroyed at the end of the semester. There are no risks involved beyond everyday risks.

Do you understand these terms?

Your participation is voluntary and You can choose to exit this exercise at any time. You can request to destroy this recording at any time

Having heard all the information about this exercise. Do you consent to participate in this exercise?

Okay lets start the exercise. Please go to kobo.com and read from a free ebook read the first few pages.

Alright, We will be stoping the recording now.

1. 10 points] Describe every problem that your participants ran into. A problem doesn't only mean places where they could not complete the task, but rather any aspect of the interface or interaction where there was confusion or dissatisfaction. The may indicate this verbally or you might observe it in action (e.g., a long pause or actions that don't lead to a solution). For each identified problem, indicate how many participants had that problem. Document these problems with screenshots as much as possible.

A) One of the problem that all participants faced during the exercise was finding the desktop app. Even though there were a couple of locations on the website where one could download the desktop app, the participants found it difficult to find the download option for the desktop app. There is even a portion where one can see the image of the desktop that was misinterpreted to be a button that will lead to the download option. There is a section called 'Apps' which has only IOS and Android apps. Given the name, people expect there to be a desktop app as well.

B) Another problem the participants faced was when adding the ebook to my books, there was no indication of whether it was added or not. When the ebook is added it does not directly go to the book but shows a list of books and then the participant had to find the book they added.

C) The loader is not prominent so the participant did not know whether on click, an action go through or not.

2. [10 points] Document aspects of the experience or interface that were particularly smooth or received praise from participants. As above, indicate how many participants had similar experiences and document these highlights with screenshots as much as possible.

   The book reader itself was quite smooth. None of the participants had any problem navigating between pages.

3. [10 points] Describe 2 (different) concrete suggestions for improvement for the interface/interaction. If applicable, supplement with sketches or mockups (e.g., insert photos of drawings or annotate a screenshot). You are not graded on how polished the mockup is, but instead on the suggestion for improvement (and how well the mockup image conveys the idea behind that suggestion). Ideally (but not necessarily) these suggestions should address issues encountered by your participants.

   The most persisting problem among the participants. It would be more intuitive to find the desktop app if it was available when you search for it in the search bar.

   Another problem was there was no indication when the book was added to my books. Either the interface could take you to the my books tab or the book itself that would be more intuitive to know that the book has been added and you can go ahead and read the book

4. [1 point] Were there any things that your participants had problems with that you weren't expecting? What were they?

   Yes, I did not expect the participants to take such a long time to find the desktop app. It is understandable but the time was more than I had anticipated.

5. [1 point] Were there any things that you expected your participants to have problems with that they didn't have problems with? What were they?

   I expected the participants to have problems with the e-reader since sometimes it scrolled too quickly when using the trackpad. However, no participants had such a problem with it.

1. [10 points] Give all the script(s), exactly, that you used with participants. They must include explaining the recording (including privacy and retention), obtaining consent, and explaining the task. If you asked participants any background questions give the exact scripts for those questions.
2. [2 points] How did you get participants to participate? Were there any difficulties?

       I asked participants if they would be interested in a simple HCI exercise to evaluate the ebook app interface which would record their voice and screen. I did not have any difficulties recruiting participants.

3. [2 points] Lay out, in as much detail as possible, who you think are representative users of the system. Are the people who did think-alouds for you representative users? Why or why not?

       I think that the people who did the think-aloud are representative users of the system or maybe a subset of representative users. I would say so because these participants were new users of the system and performed the tasks just the way any new user would. However, the age group of the participants was closely clustered and the participant group was small and not as diverse to represent users over a large region.

4. [2 points] If you wanted to recruit a large number of (as representative as possible) further users for this think-aloud task, how would you do so? Why? I would

5. [2 points] If you asked the participants questions, why did you ask the questions you asked? Were there questions that you wanted to ask but didn't? What were they? Why didn't you ask them? If you didn't ask the participants questions, why not?

       I did not ask the participants any questions since I did not want to interrupt their flow and thought process. I thought maybe asking questions would create unnecessary doubt in their minds.

6. [4 points] Did you change anything about how you conducted the think-aloud between sessions? If so, what? Why or why not?

7. [2 points] Did you end up answering any questions from the participants? If so, what, and why? In retrospect, should you have handled the situation a different way? If not, why not?

    There were a few direct questions from the participants regarding the navigation of the desktop app and the ebook added to 'my books'. I chose not to answer these questions as I thought they would be able to eventually figure it out if they spend some time looking around the app; which they did. Therefore, I asked them to explore the interface a bit more. I am satisfied with the way I handled the situation because answering such direct questions would make the exercise moot since they would then not attempt to explore the interface and would be encouraged to ask questions at every step.

8. [2 points] Did you end up saying anything (unprompted) to any participant during the task? If so, what, and why? In retrospect, should you have handled the situation differently? If not, why not?

I did not prompt anything to the participants during the task since I did not want to interrupt their flow and thought process. I thought maybe asking questions would create unnecessary doubt in their minds.

9. [4 points] Overall, in terms of the think-aloud method, what worked well? What didn't work well?

It gives a good look at what the app is lacking and what can be made better. It shows the flow that a user usually takes when navigating the application and the part of the interface that interrupts the flow. However, The process is time-consuming and requires a larger sample to know in-depth about the interface.

10. [3 points] When might you decide to use a think-aloud in the future, and why? When would you not use a think-aloud task, and why?

I might use think-aloud for

11. [4 points] What are the strengths of the think-aloud method? What are its weaknesses?

The strengths are

It gives a good look at what the app is lacking and what can be made better.

It shows the flow that a user usually takes when navigating the application and the part of the interface that interrupts the flow

The weaknesses are

To generalize the cumulative experience a larger sample of participants is required which in turn might consume a lot of time to evaluate.

Participants might not fully put their thoughts into words which might leave out gaps in the feedback.

12. [1 point] Did you look up further resources to help you perform your think-aloud project? If so, what were they? Were they helpful? Why or why not?

Yes, I looked up a few examples of the exercise on youtube. One thing that I got from it was to not interrupt the user during their tasks and refrain from directly giving them answers to any questions they have about the solutions to their tasks. This would allow for a more authentic evaluation of the interface.

13. [10 points] Imagine that you are giving advice to someone else (a researcher, new UX professional) who is learning how to do a think-aloud with participants. In approximately 500 words, give them advice and suggest some best practices for a think-aloud. Make as much of the advice as possible the things that "aren't obvious" or "are surprising." You can assume that they have read a basic description of the method, so paraphrasing "you get the participant to think aloud while completing a task," etc., is not helpful.

To start with, I would advise the researcher to first outline the tasks clearly and clearly explain to the participants that they have to speak aloud about their actions. Start by writing a clear script to let the participants know what task they have to do. Go through the tasks themselves first using the think-aloud protocol before starting with any of the participants. Evaluate the self-recording and write down a summary of the experience. Then go through the entire interface to jot down what was missed or left unexplored. Using this evaluation, update the script and the tasks if required. While recruiting

participants for the think-aloud protocol I would suggest recruiting a diverse group of people to get a good sense of the usability of the interface across different groups. The more participants you are able to recruit, you will be able to better generalize the experience with the interface. Start with the first user and clearly explain to them the tasks and get the informed consent. You need to ask the participants if they have any questions before they start with the tasks so that there are no doubts moving forward and they ask fewer questions once they start the task. My advice would be to not interrupt the participants once they start their tasks since that would interrupt their flow of thought and will be more conscious of what you have to say. If they waiver from their tasks nudge them lightly to get them back on track. Before nudging or correcting them in any way give them some time to realize what they are doing wrong and let them correct themselves. Once the participants start performing the tasks they will have a lot of questions to ask you. The way you deal with these questions is very important since knowingly or unknowingly you might just tell them the solution to their tasks and the whole exercise becomes moot in that case. When answering participants' questions you need to make sure you are not giving away an obvious way to the tasks. Your answers need to be indirect and brief. Before you answer their questions I would suggest asking them to explore a bit more and then if they are still puzzled you can give a small hint so that they can move forward with their tasks. However, these hints should not be a direct answer. After each recording, you should evaluate the participants' performance and check if there are any obsolete tasks. Accordingly, you can update the script and the tasks. You can even write up a summary of each recording. Once all participants are done with their exercise you should write down a summary report consisting of the things that worked and the things that didn't work with the interface. You should note down the places you thought were difficult for the participants to work with or understand. This report should give you a good feedback of the interface.