Introduction

Hello, welcome. Thank you for registering for the test, how are you? We are Skybees. Our goal for today is to present you designs that we've been working on and ask for your feedback to improve the design. This test should take about 30 mins. My classmate will be here to help me take note. So we're going to videotape the session. But the video is for note taking and analysis only. It's primarily for our internal use. It's strictly for research and not for public promotion. If you are fine with video taping the session, please sign this Consent Form.

Let me tell you a bit about our designs. We are currently developing a service to support senior travelers with diabetes. Our application name is LightHouse, our goal is to carefree diabetes support anywhere you are. We have created example scenarios describing typical tasks a senior diabetic traveler might perform during travels and designed a safe all-in-one injection space and a platform for diabetes travel care to support these tasks. I would like to present these designs to you and ask for feedback to improve the analytic application. I will give you a scenario description and some tasks to do.

We will start by talking for a few minutes about your personal information, physical health, what problems you face, that sort of thing. Then, we will give you a scenario and a few tasks that we want you to do and give your feedback on. After we will wrap up, I'll ask you a few more questions and give you a post test questionnaire to fill out and we're done. Do you have any questions about that?

Another thing to note is that you will be working with a prototype. This is not a full functioning system. The prototype consists of visuals depicting insulin injection areas and a series of smartphone screens with integrated buttons. Don't be hesitant in using the prototype. You can't break it. While some links work, there are others links or other items that don't work.

First you will start by reading the scenario out loud, after you start completing the tasks. While completing the tasks, make your best effort to complete each one. If you need help, ask for it. Tell us when you think you have completed each task and when you are starting the next task. We would like you to "Think aloud" as you go through the tasks. Tell us what are you doing, what are you looking for and what are you expecting, what do you not understand, what is missing etc. If you are silent for some time I will remind you to keep thinking aloud. Sometimes I may have to ask you to move on before you finish a task. When I do this it does not mean that you have failed the task, sometimes it may be that we have learned all that we need to know about this task. We prefer that you move on to the next task rather than wasting your time.

Please remember that we are testing and evaluating the prototype and not you. Actually, you are testing our prototype and we want you to give us honest feedback on what you think about the prototype to help us improve it. I am not part of the development team so you will not offend me with your honest feedback. At any time during the test, if you need to take a break or step out for a moment, you may do so, just let us know. Any questions before we begin. Let's start!

Background Questions

- 1. Do you enjoy traveling? Do you travel often?
- 2. Do you mind telling us your age? Can you share with us your age range?
- 3. Could you please briefly describe your current physical well-being?
- 4. What is your daily routine of managing your medication, and how does it impact your health?
- 5. How do you ensure yourself to take your medication?
- 6. When you're traveling, will you search for diabetic-friendly restaurants? How do you find them, and do you encounter any challenges in doing so?
- 7. Have you ever heard of diabetic-friendly restaurants? What standard do you think fit in diabetic-friendly restaurants? Do you find any diabetic-friendly restaurants while traveling?
- 8. On your travels, how often do you get insulin injections? If so, where do you normally get injections?
- 9. Have you ever heard of insulin injection? Do you see someone do that in public?
- 10. Have you ever encountered health or medical issues while traveling, and if so, how did you deal with them? Are you willing to share this experience with us?

Background Scenario

You are Janet, you are diagnosed with diabetes 2. Your main job responsibility is to take your medications during the trip. Your primary task is to stabilize your blood sugar levels.

Task 1

It's Thanksgiving holiday, and you're enjoying a short trip in San Diego with your friends & family daughter and grandson. It is now 12:00, which means it's time for lunch to regulate your blood sugar. (Please remember that before you can eat, you must take your insulin injections 30 minutes before the meal.) Staying mindful, it's important to maintain a healthy diet to control your blood sugar levels.

Open the app and search for restaurants which are diabetes-friendly. Check out reviews from other members of the diabetic community. After choosing to go to a restaurant, the app will send you injection reminders. (can you understand this two buttons) Locate the nearest lighthouse and set it as your destination.

Follow-up questions

- 1. Tell us about how important it is for you to be able to access information about diabetic-friendly restaurants and explain your reasons behind this answer.
 - 2. *(filter that you want)*
- 3. How strong is your interest in researching the nearest lighthouse?

Post-task questions

4. How relevant was this task for your situation?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------------|---|---|---------|---|---|---------------|
| Not relevant | | | Neutral | | | Very relevant |

5. How easy or difficult was it for you to find a diabetic friendly restaurant?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------|---|---|---------|---|---|-----------|
| Very difficult | | | Neutral | | | Very easy |

6. How satisfied are you with the nearest injection space after performing this task?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------|---|---|---------|---|---|----------------|
| Not satisifed | | | Neutral | | | Very satisfied |

Task 2

You are now in the lighthouse, where it's time for you to administer your injection. An AI chatbot will give instructions in the lighthouse. In the lighthouse,

Perform your injection

Try to explore the vending machine

Welcome to the Lighthouse, here at the entrance wall, you have a vending machine, On the top, there is stocked with 2 medical kits containing alcohol wipes and disposables. On the lower level, you can find some sugar-free snacks, enjoy exploring the foods. When you want to enter the Lighthouse, just push the door to enter the space. On the wall in the lighthouse, you can find a folding table and chair.

Follow-up questions

- 1. What essential tools are required for you to perform the injection, and are there any additional features or functions in this space that concern you? *Choose the needed item.*
- 2. How does it make you feel when you complete the injection in this designated area as opposed to a public space?_o
- 3. To what extent does the AI chatbot assist you, both in terms of functionality and emotional support, when using this space?

Post-task questions

4. How easy or difficult was it for you to use this space or vending machine?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------|---|---|---------|---|---|-----------|
| Very difficult | | | Neutral | | | Very easy |

Task 3

You and your family have just completed a satisfying lunch at a diabetes-friendly restaurant, and you're preparing to depart.

Step tips:

Saved the restaurant into a diabetes-friendly restaurants list. And check the diabetes-friendly restaurant list. Update your restaurant rating and leave a review for the community. After you leave the restaurant, the app will send you a reminder to monitor your blood sugar levels.

Follow-up questions

- 1. Would a voice recognition system make you want to write a review? Does it increase your motivation to leave a review?
- 2. How do you feel about creating a diabetic-friendly community?
- 3. Do you find the reminder to be useful?
- 4. What do you feel when you see the reminders?

Post-task questions

5. How important do you think it is to leave the reviews and ratings about the diabetes-friendly restaurant?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------|---|---|---------|---|---|----------------|
| Not important | | | Neutral | | | Very important |

6. How effective do you consider the reminders for monitoring your blood sugar?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------|---|---|---------|---|---|-------------|
| Not useful | | | Neutral | | | Very useful |

Task 4

While going back to the hotel, you find that you have run out of your medication and need to locate a pharmacy or a substitute for your medication in an unfamiliar place, your grandson is getting impatient, and you might find a pharmacy map complex and require assistance in navigating it.

Request the AI chatbot in locating a nearby pharmacy where you can find the medication you need.

Input the destination and set navigation to the pharmacy.

Follow-up questions

- 1. Do you think it is more convenient to communicate with an AI chatbot or you prefer to communicate with a real assistant?
- 2. What tone or style of interaction do you prefer in an AI chatbot?

Post-task questions

3. How do you feel about communicating with the AI chatbot?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------|---|---|---------|---|---|-----------|
| Not warm | 3 | | Neutral | | | Very warm |

4. To what extent did the AI chatbot assist you in locating the specific pharmacy you were looking for?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------|---|---|---------|---|---|--------------|
| Not helpful | | | Neutral | | | Very helpful |

Scenario-based questions

- 1. Are there any key details missing from this scenario?
- 2. How does this process match your process of meditation in your trip?
- 3. What differences or similarities do you see?
- 4. What did you think of the whole process?
- 5. How would you improve it?
- 6. Would you buy use this product?
- 7. Would you recommend it to a colleague friend or family member?

Design-based questions

1. What do you think of the labels and the structure of information on the screen? Are they relevant or are they misleading?

2. What do you think of the information on the screen? Is this an appropriate way to start the process and organize your work?

- 3. How does the terminology match or differ from what you are familiar with?
- 4. Was there functionality included that you would not use?

Wrap-up questions

- 1. Overall what are your general impressions about the prototype?
- 2. What did you like the most?
- 3. What did you like the least?
- 4. Would you buy this product?
- 5. Would you recommend it to a colleague? (why we repeat it?)

Post-test survey

1. Overall, how useful would this application prototype be for you to take your medications during the trip?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------|---|---|---------|---|---|-------------|
| Not useful | | | Neutral | | | very useful |

2. Overall, how much functionality was missing from the prototype that you would need to take medications during the trip?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------|---|---|---------|---|---|-----------|
| none | | | Neutral | | | very much |

3. Overall, how easy or difficult was it for you to perform tasks today?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------|---|---|---------|---|---|-----------|
| very difficult | | | Neutral | | | very easy |

4. Overall, how attractive was the user interface?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------|---|---|---------|---|---|-----------------|
| very unattracitve | | | Neutral | | | very attractive |

5. Overall, how consistent was the user interface?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------|---|---|---------|---|---|-----------------|
| very inconsistent | | | Neutral | | | very consistent |

6. Overall, how well did the terminology presented in the prototype match your needs?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------|---|---|---------|---|---|-----------------|
| very poor match | | | Neutral | | | very good match |

7. Overall, how satisfied are you with this application prototype?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------|---|---|---------|---|---|------------------|
| no satisficted | | | Neutral | | | very satisficted |

8. Which functionality, if any, was missing from this prototype application?

| 9. Would you use this application prototype to help you to take medications du | uring the trip? |
|--|-----------------|
| Yes | |
| No | |
| Why? | |
| | |