Appendix

[1] - Interview 1 with client: The scenario

(Me): Hi, I'm N. In my computer science course, I was asked to do an interview where I ask a client for information about their day-to-day problems to do a project where I can solve the problem. Let's start with the first question. What are some time consuming or inefficient issues that you encounter?

(Client): I think that I struggle to learn new key words in my English class. It's hard for me to keep consistency if I don't remember the previous key words. My studying methods are ineffective and it's time consuming not being able to move on to new words without remembering old ones.

(Me): What are the consequences/difficulties that arise from not solving the issue?

(Client): The consequences are having to revise old notes every time which is ineffective and time consuming for my learning. I can't move on to new content without learning the old words. Also, I'm not engaged enough with the content I'm learning.

(Me): How is the issue currently solved?

(Client): I currently rely on online translators which sometimes have errors. They don't necessarily help me learn either. I try to make notes on paper but I lose them or can't keep track of old and new content.

[2] - Website comparing Java and C++

Meltzer, Rachel. "C++ vs Java: A Guide for Beginners." *Course Report*, 21

December 2021,

https://www.coursereport.com/blog/c-vs-java-a-guide-for-beginners. Accessed

3 September 2022.

[3] - Interview 2 with client: Success Criteria

(Me): The purpose of this program is to help you learn and remember new words in an engaging way, let you personalize and interact with the program, and help you organize the content you learn. This second interview is to discuss the program's

requirements in order for it to be successful. Let's start with the first question. What would this program need in order to be successful?

(Client): I think that a program that works on my school Mac laptop and my home WIndows desktop that lets me add, remove and save new words, has a section for me to write down the pronunciation, and things that I connect the words to would help me to easily remember the words. I would also like to be able to view the definitions and copy information between my devices.

(Me): How would the program be organized?

(Client): I think that alphabetical order would be the best way to organize the words. And maybe record the date where I added the new words.

(Me): What inputs would the program need?

(Client): I think that the date I add the new words, the new words, their pronunciation, and things I can connect/relate them to.

(Me): What do you think about an interactive game that tests your knowledge?

(Client): I think that an interactive game that lets me test my understanding or correct use of the vocabulary words would help me engage with the words and learn faster.

(Me) What would you not want in this program?

(Client): I want the program to be easy to understand for me, so no complicated or too advanced words for now would help me control the program better.

[4] M. "English Student - Evaluation." Personal interview. 16 Jun 2023.

(Me): What do you think about the login page?

(Client): I think it was a good idea to add a login page as a security measure and that it even tells you if it's empty.

(Me): And from the vocabulary list, what improvements do you think could be made?

(Client): All the textboxes work correctly and I can easily write text, but maybe adding images would be helpful. I think that would be better than writing things I associate the word with. And for the input for a new vocabulary word, I think it would be very helpful for the program to check spelling mistakes and notify me if any are made.

Additionally, it would be helpful to get the translation alongside the definition of a word.

(Me): Did you understand the labels and each button's name?

(Client): Yes, I think the labels and buttons are clear and simple for me to know what they mean and do.

(Me): Were you able to run the program on your own device?

(Client): Yes, I was able to use the program on my laptop and everything worked correctly, including the game.

[5] - Website comparing AWT, Swing, and JavaFX

Singh, Japkeerat. "What is JavaFX and how is it different from Swing and AWT?"

Medium, 24 September 2018,

https://medium.com/@japkeerat21/what-is-javafx-and-how-is-it-different-from-

swing-and-awt-54de995e4869. Accessed 25 June 2023.

[6] - Dictionary API

Free Dictionary API, https://dictionaryapi.dev. Accessed 25 June 2023.

[7] - Website explaining Cell Factory

"Cell (JavaFX 8)." *Oracle Help Center*,

https://docs.oracle.com/javase/8/javafx/api/javafx/scene/control/Cell.html.

Accessed 20 August 2023.