Describing the problem:
In Spanish ab initio classes, students are trained to develop linguistic abilities and understanding of Spanish to enable them to communicate successfully in the environments of the language. That usually entails the memorization of vocabulary, which many fail to attain. Even though the students are using books in class, teachers say they are not very effective in terms of the retaining and recurrency of vocabulary as students may not review the content after it was covered. According to **Mrs. Morey, a Spanish teacher and our client for this solution**, many students lack the awareness and repetition of the words they don't understand. She mentioned that students, after making a mistake in their test, don't usually look back to their mistakes, and as a result, they make the same mistake later. She would like something that can help with her students' memorization learning and target the particular words that they have failed to comprehend ("learn from their error").

Proposed solution:
I proposed an object-oriented solution, utilizing the Java framework and incorporating a simple graphical user interface (GUI). In this program, users can go to "word collections", where they can view/create their own word collections, or "training mode", to practice words. In the collection section, users can create a collection, where the words and their definitions are inputted. Each collection will result in an object with 2 Array Lists for flexible storage, one storing the "front" (for the word) and another storing the "back" (its definition). As for the training, I proposed that there will be 3 kinds of exercises which the user can choose: "remember and check"; "guess and type"; and "multiple-choice". Mrs. Morey added that it is harder for students to convert from English to Spanish as opposed to the other way around, and so, that could be another 3 other types of exercises to put in the training section ("reverse" remember and check; "reverse" multiple-choice; and "reverse" guess and type).

The inquiry of whether the addition of a predetermined list of words would be necessary was made and Mrs. Morey has welcomed the idea (refer to the recording "CS IA interview1"). Mrs. Morey agreed to give me a list of words, as shown in the appendix, to put in the program and that will be available in the program from the start for students to know. Since I plan for the program to work independently on each computer, there needs to be some sort of offline permanent storage, and so, I have chosen to use text files for storage. With the capability of creating words and learning them with more engagement, the Java application proposed should resolve my client's problem described, providing a more effective way of learning Spanish.

Rationale for programming using language Java:
- Java has been the most familiar programming language to me since I started learning back in grade 10.
- As an object-oriented programming language, Java offers a number of benefits, including code reuse, data redundancy, and simpler troubleshooting through encapsulation, all of which can help me with my program development.
- The graphic user interface (GUI) design process in Java is fairly user-friendly, including capabilities such as JTextField and JPanel.

- With thousands of classes and tens of thousands of methods, the Java class library has a vast ecosystem of libraries and frameworks. This gives my software useful built-in tools and library imports like JFrame and JOptionPane.

Success Criteria:

1. The program will allow the user to input words that they want
2. For each collection, a text file will be created.
3. Words can be added to an existing collection.
4. The program can read every word shown in the text file
5. The user can view a certain word completely
6. The user can edit words from the collection through the program
7. The user can delete words from the collection through the program
8. The user can edit the collection's name through the program
9. The user can delete the collection through the program
10. There will be texts files containing list of words prepared in the program
11. The practice will include a "remember and check" training where the user tries to remember the definition of the word and afterward, he can click for the answer and select whether he has got it or not.
12. The practices will include typing definitions that they have inputted.
13. Some of the practices affect the word's familiarity count.
14. The practices will include multiple-choice type training where the user tries to find the definition amidst 4 options.
15. Words that are more unfamiliar to the user are more likely to be trained on.
16. The practices will include a reverse mode for the typing and multiple-choice training, where instead of finding the definition, the user must think what was the word that meant the definition (guess front with back).

Word count: 473

(See appendix for the interview transcript with Mrs. Morey)