

Knight Foundation School of Computing and Information Sciences

Spring 2023 Senior Design Project

Vocabulary In Reading Studies (VIRS)

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INTRODUCTION

Vocabulary In Reading Study (VIRS) is a service where users can submit images, txt, docx files, and PDFs. The service is then able to extract words from these formats and provide a detailed data representation relating to these words and categorization based on multiple filters as to which those words may fall under.

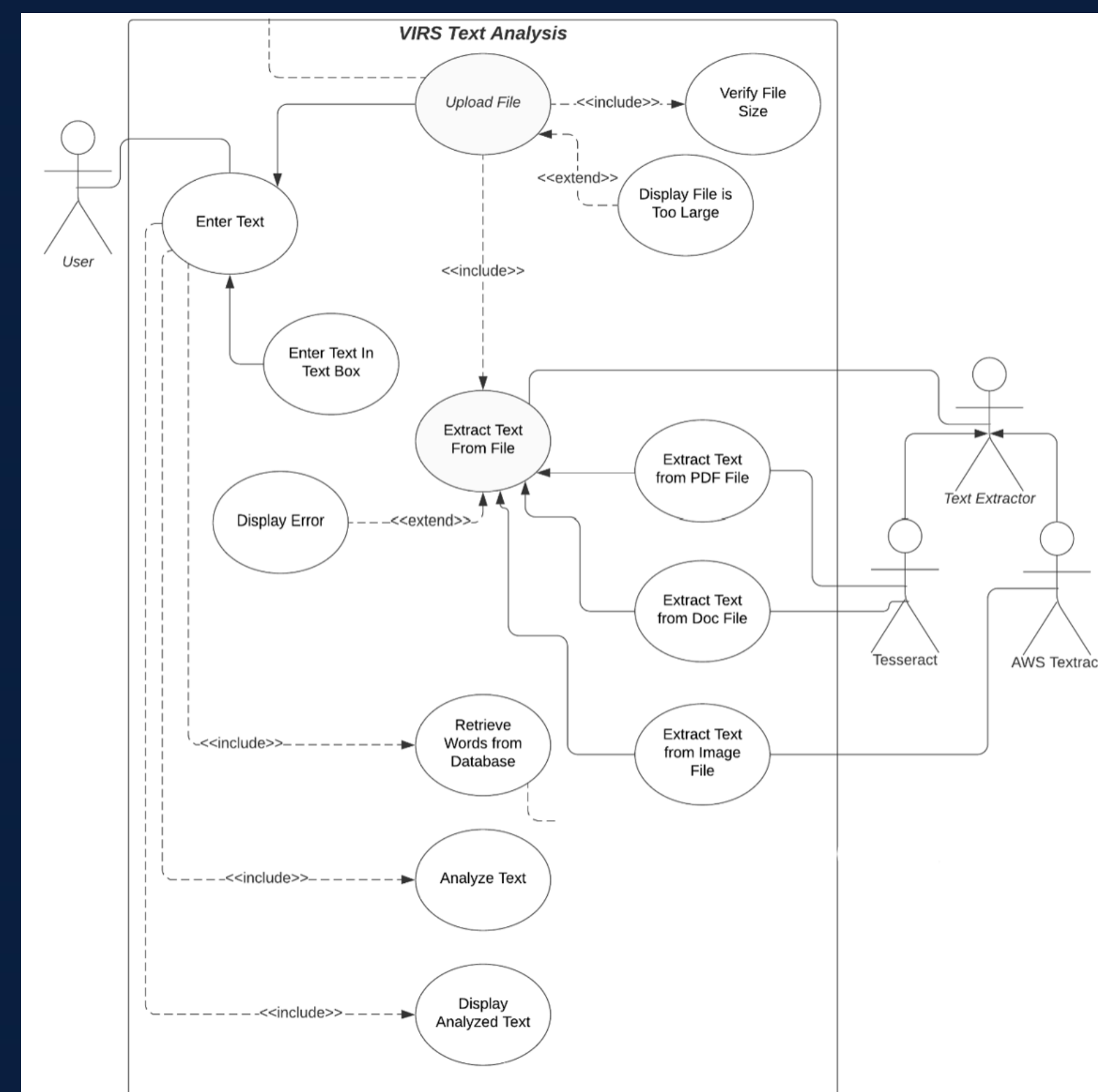
PROBLEM

1. The feature where PDFs were submitted and the text from these files displays was not working properly.
2. The feature where Docx were submitted and the text from these files displays was not working properly.
3. The text display from these files needed to be able to be analyzed by the VIRS functionality and display information about the words extracted

REQUIREMENTS

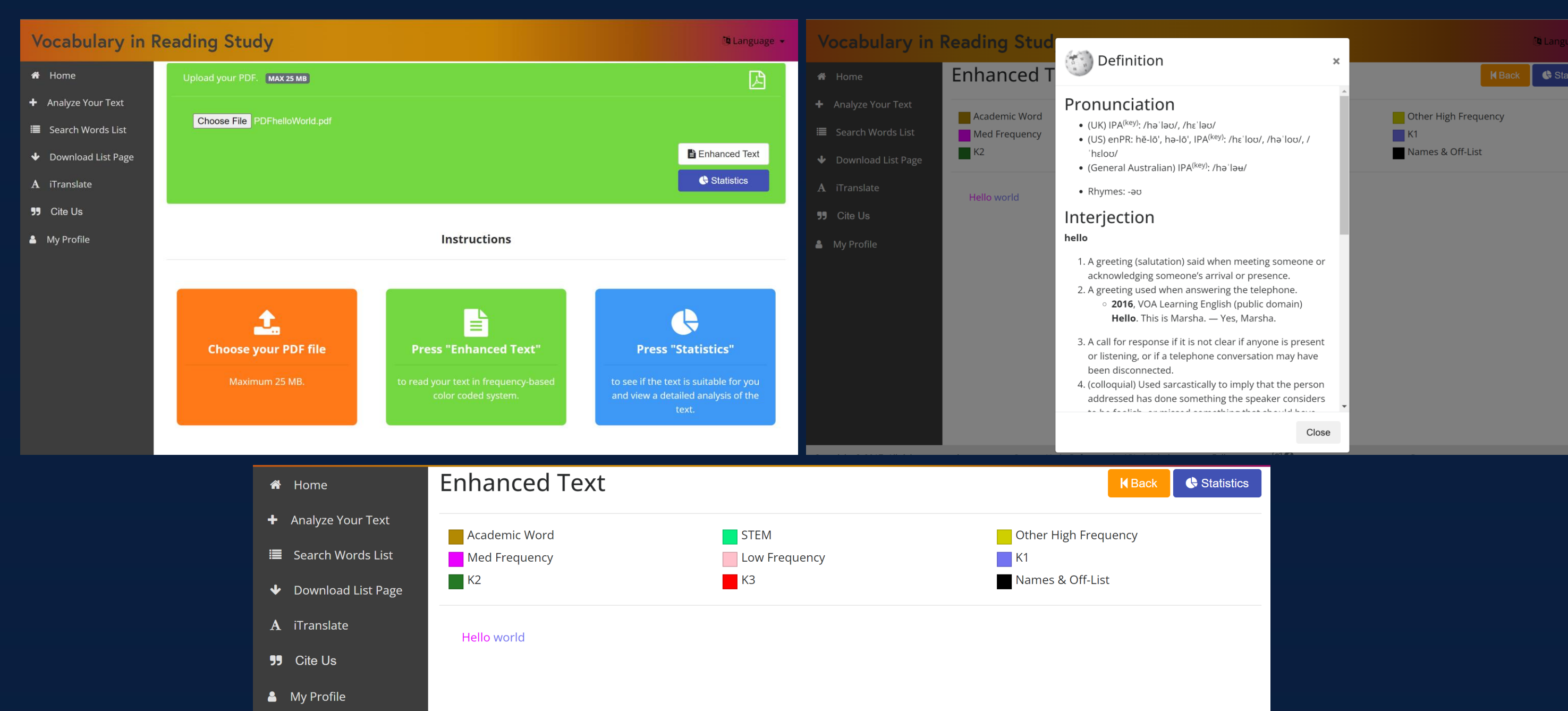
- The User should be able to Upload PDF files and have the text extracted from the file.
- Users should be able to upload Docx files and have the text extracted from the file.
- After the text is extracted from the files the user should now be able to see displayed information about the extracted text.

SYSTEM



Here we can see on a basic diagram how the system works with any kind of input from the user converts it into text, if it is not text already, and then analyzes the text to display said text with its respective information.

MAJOR IMPROVEMENTS



The Files can now be read, and the site can now display the text from these files. These extracted words will now be highlighted accordingly, and the user can now display information about every single word in the text, like pronunciation, definition, among others.

SUMMARY

My team and I were able to improve upon the work of the previous yet very capable students who worked on this project. With these fixed features we are now able to present a more complete and intuitive experience for any future users of VIRS, so they can always count on it as a valuable tool to help them or others in better understanding the English vocabulary. My team also benefited by working on this project by gaining experience on all these different tools used to complete it and by working with our mentor who did a great job guiding us on making an overall great product.

ACKNOWLEDGEMENT

I want to say thank you to our great mentor Eric Dwyer, who guided us through the semester to complete a great project and who genuinely wants to create a tool to help people and improve education.