English to Pig Latin Converter LC-3 Project Proposal

Sharon Steinke

Utah Valley University

Author Note

Research is being conducted by current student, Sharon Steinke, at UVU. No funding is needed nor provided. Research is supported and to be approved by Dr. Thackeray. All correspondence about this proposal should be addressed to Sharon Steinke, Student, Utah Valley University, Orem, UT 84058, email: [10718177@uvu.edu](mailto:10718177@uvu.edu).

Abstract

This proposal is meant to introduce the shareholder, Dr. Thackeray, to the proposed English to Pig Latin Converter LC-3 Program. This proposal will outline the rules of converting English to Pig Latin and explain how the program will work in pseudocode. Within this proposal you will find an explanation and background, an introduction to Pig Latin, a project discussion, problem statement, perceived needs, and application, a project goals, deployment strategy, constraints, and timeline, and flow chart.

Keywords:

Pig Latin: A language game using English to talk in secret.

Consonant cluster: A group of consonants with no intervening vowel.

Suffix: The ending of a word.

**Background and Explanation**

Sharon is a student at UVU studying computer science. This is a beginner program aimed at enhancing programming knowledge and exploring different possibilities through computer programming.

# Pig Latin

Pig Latin is a language that is derived from the English language. English words, in most cases, are altered by moving the initial consonant of a word to the end and adding a new suffix. While English is not the only language that has a coded language like Pig Latin, it is the language that will be focused on for simplicity’s sake. There are three simple word conversion rules.

1. For words that begin with a consonant immediately followed by a vowel
2. Remove the consonant from the beginning of the word and add it to the end of the word. “pig” = “igp”
3. Add the suffix “ay” to the end of the new word. “igp” = “igpay”
4. For words that begin with consonant clusters
5. Remove the consonant cluster from the beginning of the word and add it to the end of the word. “smile” = “ilesm”
6. Add the suffix “ay” to the end of the new word. “ilsem” = “ilsemay”
7. For words that begin with vowels
8. Add the suffix “yay” to the end of the word. “omelet” = “omeletyay”

## Purpose

To provide a user-friendly program to simply the process of translating a word in English to Pig Latin.

### **Project Discussion, Problem Statement, Perceived Needs, and Application.**

This program will translate 3 letter words into Pig Latin. The program will evaluate the first character and determine which rule will be used to manipulate the string. The returned value will be a manipulated string-the Pig Latin translation-of the word. The program will check for three different errors and respond with an appropriate message. It will check for appropriate length, non-letters, and vowels. The program must check for a vowel (including ‘y’) else the rules of Pig Latin cannot be applied.

This project is useful for playing words games with family, friends, etc. This program is perfect for those looking to learn simple three letter words in Pig Latin.

#### Project Goals, Deployment Strategy, Constraints, and Timeline.

The first goal is to receive approval for the project to be completed February 26, 2022. Second is to develop the blueprints or design of the program to be completed by March 5, 2022. The third step is development. The fourth step is debugging. The fifth step is maintenance and potential upgrades or enhancements of the program. The ultimate goal is to translate any three-letter word in English to Pig Latin. A potential goal, depending on time constraints, would be to allow any English word as an input from the user.

A user would get the program from Sharon Steinke, contact information is provided above.

As planned, the program would only handle three letter words and as long as the word had a vowel it would be considered an acceptable word.

The project must and will be completed by April 27, 2022

##### Flow Chart.

Diagram

Description automatically generated

References

Wikimedia Foundation. (2022, January 26). *Pig Latin*. Wikipedia. Retrieved February 21, 2022, from https://en.wikipedia.org/wiki/Pig\_Latin

Footnotes

1Add footnotes, if any, on their own page following references. The body of a footnote, such as this example, uses the Normal text style. (Note: If you delete this sample footnote, don’t forget to delete its in-text reference as well. That’s at the end of the sample Heading 2 paragraph on the first page of body content in this template.)

Tables

Table 1

Table Title

| Column Head | Column Head | Column Head | Column Head | Column Head |
| --- | --- | --- | --- | --- |
| Row Head | 123 | 123 | 123 | 123 |
| Row Head | 456 | 456 | 456 | 456 |
| Row Head | 789 | 789 | 789 | 789 |
| Row Head | 123 | 123 | 123 | 123 |
| Row Head | 456 | 456 | 456 | 456 |
| Row Head | 789 | 789 | 789 | 789 |

Note: Place all tables for your paper in a tables section, following references (and, if applicable, footnotes). Start a new page for each table, include a table number and table title for each, as shown on this page. All explanatory text appears in a table note that follows the table, such as this one. Use the Table/Figure style, available on the Home tab, in the Styles gallery, to get the spacing between table and note. Tables in APA format can use single or 1.5-line spacing. Include a heading for every row and column, even if the content seems obvious. A table style has been setup for this template that fits APA guidelines. To insert a table, on the Insert tab, click Table.

Figures



Figure 1. Include all figures in their own section, following references (and footnotes and tables, if applicable). Include a numbered caption for each figure. Use the Table/Figure style for easy spacing between figure and caption.

For more information about all elements of APA formatting, please consult the APA Style Manual, 6th Edition.