Reid3.py Algorithm:

I. Initialization

    1. Ask user the name of the file that they wish to open

        A. If no file is chosen, or an invalid filename is given, a default text will load

    2. Opened file returned to main program

    3. Text file printed on screen

II. Menu creation

    1. Selection menu printed with options specified in program

    2. User is asked which option they choose

        A User will be asked to choose until a valid selection is picked

III. Run selection based on menu choice

    1. All Word Count

        A. Separates the words in the text and removes punctuation

        B. Iterates through separated words counting each word and adds to dictionary

        C. Create a sorted dictionary

        D. Create a set of the top five values

        E. Calculate and total number of words

        F. Print total number of words and total number of unique words in dictionary

        G. Print top five words and their values from sorted dictionary

        H. Return to main menu

    2. Single Word Count

        A. Asks user for a word to check - Loops until only one word is given

        B. Separates the words in the text and removes punctuation

        C. Iterates through separated words counting each user specified word

        D. Prints how many times, if any, the word appears in the text

        E. Return to main menu

    3. Replace Word

        A. Asks user for a word to replace

B. Asks user what word they would like to replace it with

C. Replace the old word with the new word

D. Separates the words in the text and removes punctuation

E. Iterates through separated words counting each user specified word

F. Prints how many times, if any, the word appears in the text

G. Prints new text on the screen

H. Asks user if they wish to save the file

- If user wishes to save, ask the user what filename they want to use

- Print confirmation if file was saved or not

I. Return to main menu

4. Add Text

A. Asks user if they want to add text to beginning or end of the text.

- Continues to ask until a valid answer is given

B. Asks user what they wish to add to the text

C. Adds the new text to the specified location of the original text

D. Prints new text on the screen

E. Asks user if they wish to save the file

- If user wishes to save, ask the user what filename they want to use

- Print confirmation if file was saved or not

F. Return to main menu

5. Delete Text

A. Asks user what word they wish to delete

- Verifies that only one word was given

B. Replace first occurrence of the user word with an empty string

C. Remove any extra spacing where the word was removed

D. Prints new text on the screen

E. Asks user if they wish to save the file

- If user wishes to save, ask the user what filename they want to use

- Print confirmation if file was saved or not

F. Return to main menu

6. Highlight

A. Asks user what word they wish to highlight

B. Saves word adding '**' to the beginning and end of the word

C. Replaces all occurrences of the old word with the new highlighted word

D. Prints new text on the screen

E. Asks user if they wish to save the file

- If user wishes to save, ask the user what filename they want to use

- Print confirmation if file was saved or not

F. Return to main menu

7. Ransom Text

A. Prints initial statement

B. Alternates toggling each character as either uppercase or lowercase

C. Alternates toggling each character as red or purple

D. Saves one version with color change and one version without color change

E. Prints the version with color change applied

F. Asks user if they wish to save the non-color changed file

- If user wishes to save, ask the user what filename they want to use

- Print confirmation if file was saved or not

F. Return to main menu

8. Exit

A. Exits the program