# Definitions

* Rewrite: List of sentences used to replace a single sentence in a piece of writing. For each sentence, the user creates multiple rewrites, each of which is stored in a list. Once the user has finished adding rewrites, they pick the one they like the best, and it is inserted into the document. Replacing the original sentence.
* Prototype: Works on a paragraph one sentence at a time allowing the user to store rewrites for each sentence in the command line.

# Rational

Advanced text editing software such as MS Word have many features. However, I find one feature lacking; this is the ability to select each sentence, rewrite it, while keeping a record of each rewrite. The only solution I can find is essay.com. It is either $6/mo. or $300 once. I believe this program lost its sense of scope. It only needed to solve one problem.

You can do this manually, but it’s a lot to do for each sentence. It can be automated with a program to get as out of the way of the user’s creative process as possible. This is proven to work from essay.com and my prototype program. At the end of the day rewriting each sentence like this is subjective to the writer. What isn’t subjective however is that the software needs to stay as out of the way of the user and their creative process as possible. This means a well-designed, simple, intuitive GUI. Like the one proposed.

# Current System

* Write in MS Word or Libre Office, then copy and paste into my prototype build. The prototype works, but is:
  + Not user friendly.
    - No GUI
    - The menu is clunky.
    - All text based, no mouse functionality.
  + (Technical) Uses vectors where linked lists would be optimal.
  + Current implementation can only save progress of one rewrite.
  + Has no spellcheck/grammar check. Not sure if this is a bad thing.
  + Only accepts one paragraph at a time.
* Once the paragraph is edited, I copy and paste it from the rewrite program back into the editor.

# Alternatives

* Essay.com
  + Too much money, either subscription (no) or $300.
  + Does more than it needs too.
  + Tries to replace MS Word. (Crazy)
  + Does achieve the requirements.
* There may be an extension to MS Word or libre office.
  + I did not find any extensions like this. But it may exist.
* Highlighting sentence in MS word and creating comments.
  + This is clunky at best unusable at worse.
  + Have to copy and paste manually from the comments on the side of the document.
  + Having multiple comments for each sentence clutters the document.
  + Meets some requirements. Functionality, not user friendliness.
* Create a new text editor.
  + Competition is fierce and developed so many features for so many different users.
  + Lack of experience. Systems analysis, programming, understanding of tools.
  + Re-inventing the wheel.
  + Could be cheaper for a user that hasn’t bought MS Word. But Libre Office is free.
  + Would achieve the requirements.
* Create an application to be used in tandem with current text editors.
  + Already have a working prototype.
    - Can take a paragraph pasted from favorite text editor, edit each sentence.
    - Meets functional requirements.
    - No user-friendly requirements. (Command line application.)
  + Proven.

# Requirements

* Paste your work into the application.
* Each sentence can be worked on, on the left side of the application a list will be correlated to that sentence. These are the rewrites.
* Able to save work. Including all the rewrites.
* Dark mode. Why would you need anything else?
* Allow the user to insert/delete sentences.
* GUI with the ability to:
  + Display work on the right side of application.
  + Display rewrites on the left side of application.
  + When you click a sentence on the right side, the left will highlight the rewrite list for that sentence.
  + When you are working on a rewrite (left side) it will highlight the sentence it is editing in the work on the right side of the application.
  + Click and drag sentences around with mouse.
  + Click and drag paragraphs around with mouse.

# Scope

Application will leverage popular text editors. The only functionality it needs is to re-organize and edit a near-final draft by allowing the user to move sentences, paragraphs, create, and use rewrites for each sentence.

# Prototype

The Prototype works in the command line as seen below.

A screenshot of a computer program

Description automatically generated

The user has a prompt at the bottom of the window, you can create a new rewrite by typing and hitting enter. Notice the rewrites list has another entry below.

A screenshot of a computer program

Description automatically generated A screen shot of a computer

Description automatically generated

Now you can press “1” then “enter” to insert that new rewrite into the paragraph.

A screenshot of a computer program

Description automatically generated A screenshot of a computer program

Description automatically generated

Notice the sentence with the white boxes around it has changed. Finally you can enter a letter corasponding to the menu option to perform the action it is associated with.

Overall, the prototype has a learning curve but once the user gets over that, it achieves its goal. I would like to remove that learning curve and the clunkiness that is a command line application.

# Tools

* C++
* wxWidgets Libraries for GUI.
* Cloin.