CS142 **Assignment 5** Spring 2025

Given: Wed, Feb 19
Due: Thu, Feb 27, 3:00 p.m.

1. (20%) Redo the last exercise of the previous assignment to make sure that your funtion is implemented as efficiently as possible. *Hint*: If you used repeated `push_back`'s, reserve enough capacity ahead of time. (If you already did that in the last assignment, simply resubmit the same solution.)

2. (80%) Add a *search* command to the file viewer we created in class. This command asks the user for a string and finds the first line that contains that string. The search starts at the first line that is currently displayed and stops at the end of the file.

   If the string is found, then the file will be scrolled down so that the line where the string was found becomes the first line that is currently displayed.

   If the string is not found, the program prints the following error message:

   ```
   ERROR: String X was not found.
   ```

   where *X* is replaced by the string entered by the user. After the error message is printed, the user is asked to press enter to continue, just like when a file does not open. The program then redisplays the lines that the user was viewing before the *search* command was executed.

   Modify the program as little as possible. Make sure you assign new responsibilities to the most appropriate components. Use the C++ string

operation `find`. Consult Section 3.2 of the notes for details on this operation.