Amber Liu Al7bf 10/23/2018 #Section 106(3:30-4:45)

Yes, my implementation produced the correct results when comparing results to the output files provided. Originally, there was a difference of 1142 words when I ran the program, but after I added the –w flag to ignore all the whitespaces and sort the results, it worked in the end.

The output was far more faster with the -O2 flag, making the program run nearly three times as fast. Without flag it required 5.19047 seconds, while with the flag it was 1.4686 seconds.

On Mac OS With O2:

250x250 = 26013 words in 3.708 seconds

300x300 = 2855 words in 1.37793 seconds

Without –O2 flag:

250x250 = 26013 words in 8.95592 seconds

300x300 = 2855 words in 5.19047 seconds

Big Theta Running speed =  $c^4+r+w$ 

Problems I encountered were mainly trying to read the dict file and grid file in wordPuzzle.cpp. It was really easy to get lost in the long nested loop for rows, and columns. Another problem relating to this is the ifstream and reading the input file which I wasn't really familiar with. I think the lab instruction was kind of unclear about this, which I had to do some reading and searching for. I also had many problems with the makefile and I didn't really understand what the instructions were saying for a.out.

Shell scripting went pretty smooth although I had some syntax problem that kept on happening with printing out the result. Later on I found out that it was a problem with cout in my wordPuzzle.cpp. The instructions for running the shell script was also unclear, and I had to do some research with compiling and running for it to work.