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nw9ca

inlab.pdf

10/17/17

Did your implementation produce the correct results? Did you have to reformat your output?

My implementation did not produce correct results at first since the searching part in wordPuzzle.cpp did not implement correctly. (It worked when I tested it 4x7.grid.txt)
Since *printed* variable causes words lost in case that there exist more than one word in the same direction. Thus, I deleted the variable and put a condition 'a == x.length()' before printing the result. Also, I need to reformat all my output in order to check with x.out.txt.

How much faster was your program with the -O2 flag?

Running with -O2 flag increase my average time from 10.7976s to 9.995 s when running 300x300.grid.txt and words2.txt. Thus, it speeds up 7.43%.

What was the speed of your implementation? How fast did it run on the 250x250 grid using words.txt as the dictionary file? What about words2.txt and the 300x300 grid? -- If you ran it on a different machine other than the ones in Olsson 001, specify so.

	MacBook Pro (mid 2012)	ASUS
250x250grid.txt words.txt:	16.836s	16.108s
300x300.grid.txt words2.txt:	9.995 s	10.001s

What is the big-Theta running speed of your program? We are really only interested in the word search part, not the part where you populate the hash table. Please do this in terms of r (rows), c (columns), and w (words).

You can assume that the maximum word size is some small constant. Only consider the word-search component of the program, and not the file reading or hash table creation time.

rcw

What problems did you encounter when implementing this lab?

- I got a segmentation fault when running in Terminal while it can run in debugger. Then, I found that my hash number is overflow, so I just had to change the type to be unsigned int

- At first, my result did not match due to the four loops did not print the result correctly as explained in the first question. Then, I had to add a condition that a = size of the string on the forth loop.

- My first hash function is very slow, so it will take at least an hour to run on larger grid.

How did your shell scripting writing go? What do you think of shell scripts so far?

I think that it is very interesting topic, and would be useful to write the program in the future. It is helpful such that I do not have to type many commands in order to run only one program. I think the shell scripts are the old code implementation, so it is very sensitive and somehow difficult to debug due to its details i.e. syntax.