ITCS 3146 Spring 2016 – Assignment 1

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Type Justification – Documentation

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Alright, this program was a hard one, I had to make a couple changes. First of all I asked the user for the characters per line first because I needed that variable to go into my functions and I had a function that reads in the file, so I had to ask that second and not first, I’m sure that doesn’t make a difference in my grade though.

Ok, so the rundown of my program is this. I’m using a linked list structure to store the text they I read in from the file. It is a single linked list. Alright so how does it work? First of all, I have made 3 main functions, one to read, one to print, and one to free the dynamic memory. The only thing I have in main is the prompt to ask the user for the number of characters per line and then the 3 function calls because it just makes life easier.

So the first function call is the read\_file(). Its pretty basic, it reads in the text file and inserts each word into the linked list as it is read. Next I have the print\_list() function, and it does the load of the work. Basically it first calculates the white space necessary to add after the words have been added without breaking the words apart in-between lines. After it has determined the right amount of spaces needed it just prints out from the linked list while adding in spaces in-between the words but not on the edges of the line. The last function I call is the free\_mem() function, all it does it free up the memory in the linked list after it has been printed, nothing amazing.

Ok so unfortunately I was not able to get the program running perfectly. So a couple things are wrong with the code and don’t work. For one I cannot get the code to identify a new line in-between paragraphs, I have a feeling this is due to the fact that I am reading and inserting words from the test file into the linked list at once but I am not sure since I cannot solve the issue, so what happens is that when you run the code with multiple paragraphs it prints out one big paragraph that is aligned. And the other issue is that with 2 of the test files if the word Impeachment or Ford is not the last word on the last line, it repeats the word until the line has been filled, this I was also not able to solve, its probably simple but I’m drawing a blank here. Those are the only 2 errors I have seen though my testing.

I am not adding a ReadMe file since the file runs fine without any issues.