CCDSALG Term 3, AY 2019 – 2020

Project 3 – Word List (Binary Search Tree Application)

Section	Names	Task 1	Task 2	Task 3	Task 4	Task 5
S13	Dela Cruz, Sabrina Mykel C.	x	x	x	x	x
	Mandadero, Clarissa Mae S.	x	x	x	x	x
	Sanson, Ralph Matthew H.	x	x	x	x	x

Fill this part with your section and names. For the tasks, put an X mark if you have performed the specified task. Please refer to the project specifications for the tasks.

IMPLEMENTATION DISCUSSION

1. What is the programming language that you used for the project? Why did you choose that programming language for Project 3? Explain briefly (1 to 2 sentences).

We used C because this is the language that all of our members are most familiar with.

2. Depending on the programming language used:
   a. List the libraries or APIs that you used in your implementation
   b. Indicate how to compile (if it is a complied language) your code, and how to run (execute) your program from the **COMMAND LINE**. Examples are shown below highlighted in yellow. Replace them accordingly. Make sure that all your group members test what you indicate below because this will be used verbatim to compile and run the code. The solution will be initially tested using the sample input text file that you have submitted. Then, another text file will be used to test the data.

Libraries:

- <stdio.h>
- <string.h>
- <stdlib.h>

To compile from the command line (for compiled language only):

C:\CCDSALG>`gcc -Wall main.c -o main.exe`

To run from the command line:

C:\CCDSALG>`main`

3. How did you implement your BST data structure? Did you implement a single BST or multiple BST? Why? Explain briefly (2 to 3 sentences).

We implemented a single BST data structure which consists of multiple nodes, but only has one root. Each node is stored in a struct node which consists of word (String), count (int), left (struct node pointer), and right (struct node pointer). We only used a single BST data structure because it would be easier for us to access all the words found in the BST.

4. Disclose what is NOT working correctly in your solution. Be honest about this. Briefly explain the reason why your group was not able to make it work.

Based on our testing, all of our functions are working correctly.

5. What do you think is the level of difficulty of the project (was it easy, medium, or hard)? Which part is hard (if you answered hard)? Type your answer individually for this question.

Dela Cruz, Sabrina Mykel C.	I think the project had a medium level of difficulty. One reason is that we were able to work together as a group and brainstorm ideas which allowed us to finish the project in a short amount of time. We had a few minor bumps in the road such as figuring out the logic for some of the functions but once those were resolved, everything else went smoothly.
Mandadero, Clarissa Mae S.	I think the level of difficulty of the project is medium. I have chosen medium because once we have understood what needs to be done, and how a BST works, we were able to easily implement it into a program. We encountered some problems in executing the program, but everything was easily solved.
Sanson, Ralph Matthew H.	Well, to be completely honest, it wasn't completely smooth sailing for me in this project. Although I did get it in the end, it was a steep learning curve since recursive functions were not covered deeply last term. It took me a while but a little google search and a good tracing of the code that we wrote made me understand at least how it flows. So, I guess the level of difficulty of the project was only a little over medium.