COEN 11 Lab 7

Steps

1. Open up Terminal and connect to the Linux computers:
   ssh -l username linux.dc.engr.scu.edu
2. Go to COEN 11 directory: ***cd coen11***
3. Copy the contents of lab2 into a new file: ***cp lab6.c lab7.c***
4. Edit lab3:   ***vi lab7.c***
5. Compile the file: ***gcc -o lab7 lab7.c***
6. Test your file: ***./lab7 data.txt***
7. After exiting your program, check the file contents: ***cat data.txt***

Requirements

The filename is read from command line arguments in the main function, using **argc** and **argv**. If the filename is not provided, proper error message is displayed to the user.

Use **fopen** with proper access parameters (read or write), and remember to close the file pointer using **fclose.**

Proper file path is provided, for ease of use, put the file in the same directory as the code.

Two new functions:

read_all (char *) ~ uses filename as function argument, reads the file line-by-line and calls insert function for each line to insert to the list. If file is empty, the linked list is empty as well.

save_all (char *) ~ uses filename as function argument, traverses the linked list and stores each group name and corresponding group size in the text file.

Existing functions:

insert (char *, int) ~ the function behaves similar to lab5 or lab6. The function definition would change, to incorporate the read_all function. The user name and group size are passed as function arguments to insert(), and this function does not ask for user input.

check_duplicate(char *) ~ this function is called before calling insert to check for duplicates in the list.

quit() ~ calls the save_all function to save into the file, and then the list elements are deleted as well.

No changes in other functions.

When Submitting the Code…

Add comment at the top of the page with…
- Your name
- Course title
- Lab number
- Lab time and date


```
/* Emma Allegrucci
 * COEN 10
 * Lab 5
 * Monday 2:15pm
*/
```

Helpful Resources

*** "The C Programming Language, 2nd Edition" ***

C: https://devdocs.io/c/

C: https://www.tutorialspoint.com/c_standard_library/index.htm

Terminal commands:
https://cheatography.com/davechild/cheat-sheets/linux-command-line/

Vim commands: https://vim.rtorr.com/