

Exercise 1:

Given the following header and source files:

prog.h

```
typedef struct {
    int total_chars;
    int letters_count;
    int words_count;
    int lines_count;
    int max_line_length;
} FileStats;

/* returns 1 if param is a letters
and 0 otherwise */
int is_letter(char);

/* takes a filename as a string param
and returns a pointer to a FileStats
structure, or NULL on failure */
FileStats* process_file(char*);

/* takes a filename as a string param
and returns an array contains all the
lines of the file, or NULL on failure
*/
char** get_lines(char*);
```

prog.c

```
#include <stdio.h>
#include <stdlib.h>
#include "prog.h"

int main(){

    /* local var declarations */

    fsp = process_file("wcs.txt");

    /* printf the returned stats */

    lines = get_lines("wcs.txt");

    return 0;
}

/* define the functions
you can write function stubs
during development */
```

1. Launch the terminal
2. Create a new directory with the name "Lab08" inside "CSC215"
3. Write a C file "prog.c" the contains that:
 - a. implements the function `is_letter` 1 point
 - b. implements the function `process_file` 3 points
 - c. implements the function `get_lines` 3 points
2. Complete the function `main` so the program does what is required. 1 point

Note: words are separated be no-alphabetic characters.

Assignment:

Add to your program the function:

```
void write_rev(char*, char**, int);
```

Which takes a filename as a string parameter, an array of strings and the number of strings as an integer, and stores the strings in a text file called filename in a reversed order (i.e the first string should be the last line of the file, ...).

Then modify your main function to store the lines that was read from "wcs.txt" into the file "wcs-rev.txt" in reversed order. 2 points