

## Homework 6

Files to submit: **read\_lines.c, read\_lines.h**

Time it took Matthew to Complete: **15 mins**

- All programs must compile without warnings when using the -Wall and -Werror options
- Submit only the files requested
  - Do **NOT** submit folders or compressed files such as .zip, .rar, .tar, .targz, etc
- Your program must match the output exactly to receive credit.
  - Make sure that all prompts and output match mine exactly.
  - Easiest way to do this is to copy and paste them
- All input will be valid unless stated otherwise
- Print all real numbers to two decimal places unless otherwise stated
- The examples provided in the prompts do not represent all possible input you can receive.
- All inputs in the examples in the prompt are underlined
  - You don't have to make anything underlined it is just there to help you differentiate between what you are supposed to print and what is being given to your program
- If you have questions please post them on Piazza

### Restrictions

- No global variables are allowed
- Your main function may only declare variables, call other functions, and assign variables values.

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For this assignment you will be writing only a single function: `read_lines`.

## Specifications

1. This function has the following definition:
  1. `void read_lines(FILE* fp, char*** lines, int* num_lines)`.
2. This function should read all of the lines contained within `fp` and
  1. Set each row of `lines` to contain one line of the file.
  2. Set `num_lines` to be equal to the number of lines that were in the file
3. If the file is empty `lines` should be set to `NULL` and `num_lines` to 0.
4. You only need to submit `read_lines.c` and `read_lines.h`
5. `read_lines.h` must contain at least the definition for `read_lines` but it is perfectly ok if there are more

## Example

1. `./read_lines.out` Makefile
  1. `read_lines.out: read_lines.o main.o`
  2. `gcc -g -Wall -Werror -o read_lines.out read_lines.o main.o`
  - 3.
  4. `main.o: main.c read_lines.h`
  5. `gcc -g -Wall -Werror -c -o main.o main.c`
  - 6.
  7. `read_lines.o: read_lines.c read_lines.c`
  8. `gcc -g -Wall -Werror -c -o read_lines.o read_lines.c`
  - 9.
  10. `clean:`
  11. `rm -f *.out *.o`

Assignment Project Exam Help

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