

CSC2302 Exam 1 Instructions

I am providing you with an input file with the latest numbers about countries that are fighting against covid-19. The file contains data in the following format (sorted by the number of cases)

Country name

Number of cases

Number of deaths

☞ Please look at the file

☞ In this exam don't:

- Use global variables
- Don't violate the rule of user defined functions: input arguments, output argument ..
- Don't use `fgets()` in this exam
- You need to declare define and call exactly **4 functions not less not more**

Let's start:

1. First of all make sure that you put the files I sent you in the folder that you should have created, otherwise do it now
2. Change the name of the .c file to your name using the following format: `FirstName_LastName.c`
3. Let's start coding! Initially open the file in the main function and make sure it is opened successfully
4. Define a function called `load_screen()` a function you need to call in case 1 that simply have access to your file and print the content

of the file in the screen. Here you are forced to print inside a function **(you should not spend more than 10 mins)**

5. Define a function called `create_LL()` that you need to call in case 2. Make sure that you define your structure and call it node. `Create_LL()` will have access to the input file, the head of the linked list (that you should declare initially in the main function) and then produce a linear linked list (not doubly) for all the countries in the file. Please note that the function should create a node for every country in the input file then add the node to the linked list. The final linked list created by this function should look like this:



(You should not spend more than 20 mins)

6. You need to define a function called `update_records()` that you need to call in case 3. As you know the number of cases as well as the number of deaths is updated hourly. `Update_records()` should get as input the name of a country, and two other inputs that are the new number of victims and the new number of deaths then:
- a Change the corresponding values in the country node in the created linked list (obviously if country exists!).
 - b Remember final linked list should be ordered!
- Don't print nor scan anything inside this function!

(You should not spend more than 20 mins)

7. Create a last function called `quit()` that you need to call in case 4. This function will have access to the linked list and the input file then update the file with the content of the linked list (as we should have changed the

values using choice 3). Make sure that you keep the same initial format of the file:

Country name

Number of cases

Number of deaths

(You should not spend more than 10 mins)

Done!

- Close your input file in the appropriate place in your program
- Save your modifications
- Send your file by email. Make sure that you send .c file not .o not .exe (otherwise you get a ZERO)