CSE 3302: Programming Languages

Spring 2020

Programming Assignment 04 – Recursive File Space

100 points

Due on 4/13/2020 [before 11:59 pm]

INSTRUCTIONS

1. **Do NOT plagiarize.**
2. **No group work. All work should be your own.**
3. **Do not discuss your work with other students in the class.**
4. **You CANNOT borrow code from online sources.**
5. **Turn in your program using Canvas. Do not email your program to the TA or the instructor.**
6. **This lab will be done in 'C'.**
7. **You have to do the recursion yourself. If you find a library/package/system call that does it for you and use it instead, you will lose 25 points.**
8. **Name your source file as [netid]_PA4.c where [netid] is your UTA netid. If you do not know your netid, check what it is using NetID Self Service. Your 1000 number is NOT your netid. If your file name is wrong, your assignment will not be graded.**
9. **All code should be your own. You may not copy code from the slides, book, others, or the internet unless specified. You may look up functions in language references. You should be able to use the same overall approach as from Lab 2 so you shouldn't need to find a new solution, just figure out how to do the same thing but in a different language.**
10. **The programs will be tested against a directory with multiple levels of subdirectories.**
11. **Write an explanation of your code using comments. If the explanation is not clear, you will NOT receive full credit.**
12. **The code should have your name, 1000 number, the date you turn in your assignment, and OS used as the first 4 lines in order.**
13. **Submit a single ZIP file containing all your source code files. The filename will by netid_PA4.zip where 'netid' is replaced by your netid just as in #6 above.**

Objective: Write the same program as Lab 2 but in '**C**'.

Description:

Write a program to calculate the total size of all files in the current directory / folder and all sub-folders.

Example:

I have a directory with 1 file (size 150KB) and 2 subdirectories, each of which has 1 file (size 10KB each), then when I run this program on this directory, I expect the answer to be 170KB.

Note: Do NOT contact the TA or instructor regarding the test cases.