CSC 33200 (L) - Operating Systems – Fall 2022

Lab 1: Link List Implementation
Date: 08/26/2022

Points: 20   **Submission Deadline: 09/08/2022**

1. Implement a Link list using C. The link list should have traverse, insert, delete, search and sort operations. Sort operations could be both ascending and descending.

   Points: 8

2. Implement a Circular Link list using C. The link list should have traverse, insert, delete, search operations.

   Points: 8

3. Write a report on the differences, pros and cons of Link List and Circular Link List. Point out some of the cases where Link List is used and some of the cases where Circular link list is used.

   Points: 4

General Instructions

To compile and run a C code:
gcc filename.c -o filename.exe
./filename.exe

The operations on Linked list:
Traverse: Traverse the link list to give the count of number of elements in the link list and Print link list.
Insert: Insert a new Item in the link list. The item could be added at the end or at the start of the list.
Delete: Delete an item from the list.
Search: Search an item in the link list.
Sort: Sort in ascending or descending order.

Submission Instructions

- Make sure your programs compile and run without any errors

- Save all your programs with meaningful names and zip into a single folder as: lab1_[your last name here].zip (e.g., lab1_Xyz.zip)

- Email your code with the subject line, "Lab1-CSC33200(L)–Class#G-*lastname*" (e.g., Lab1 - CSC33200(L)-Class#G-Xyz)

- Email: sdebnath@ccny.cuny.edu

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Office Hour: Tuesday 11:00 AM – 12:00 PM
Zoom Link: https://ccny.zoom.us/j/81116234847

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