Lab 1 Tasks

This is a task that will require multiple labs to finish completely. The goal of this task is to create a small phonebook project.

Q1. Today's task is to add new contacts to the phonebook. The phonebook can store the following information for each contact:

a) Name (Name can be 30 characters long)

b) Phone Number (A contact can contain up to 5 phone numbers. Each phone number can be 20 digits long. A number can start with a plus sign (+), zero (0) or any other numerical characters)

c) Address (Address can be 50 characters long)

d) Email Address (A contact can contain up to 5 emails. Each email address can be 30 characters long)

e) Group (A contact can belong to up to 5 different groups (e.g. friends, family etc.). The names of the groups are given by the user when saving the contact. They are not case sensitive. The name of each group can be 15 characters long.)

You have to implement a **linked list** to store the contacts. So, create a structure that can store all the information specified above for a single contact. Also include an appropriate pointer variable in the structure definition which will point to the next element of the linked list.

Create a menu which will have only two options for now: 1. Create a contact 2. View all contacts. Pressing 1 or 2 will execute the corresponding option.

When creating a new contact the user will first give the name of the contact. Then the program will ask whether the user wants to save a number. If the user presses Y (yes) then the program will take a phone number as input. The program will not take a number if the user presses N (no). After taking a phone number as input the same question will be asked to the user. In this way, the user can give a total to 5 numbers. Next, the user will be asked whether he wants to save an address. If user presses Y (yes) then an address will be taken as input. Pressing N (no) will skip taking the address as input. The process of taking input for email and groups will be similar to that of taking input for phone number.

The view all contacts will print all the information of all the contacts in the phonebook.