

Telephone Directory

Develop a menu-driven telephone directory which is capable of doing the following:

1. Insert a contact
2. Delete a contact
3. Edit an existing contact (changing or modifying a record)
4. Search a contact (and display complete record on screen)
 - a. Search through first name
 - b. Search through last name
 - c. Search through landline
 - d. Search through cell number
5. Display all contacts that
 - a. Start with a given letter (e.g., all contacts starting with 'M')
 - b. Landline or cell number starting with a particular pattern (e.g., 0300 for cell number, or 0423518 for landline number)
6. Sort all contacts with respect to
 - a. first name
 - b. last name
 - c. land line number
 - d. mobile number
7. Exit

Your program should be menu driven. The program should exit if the user choice is 7.

Directions:

- a)** All the contacts are to be stored in a file, **contacts.txt** (this file contains all the records sorted with respected to the first name).
- b)** You will have to update the existing file if a contact is inserted, deleted or edited.
- c)** If searching is applied, the record(s) should be displayed on the output screen only.
- d)** In case of sorting, new file should be created (the name of the new file should be entered by the program user).
- e)** All the fields of a single record are comma separated (no commas otherwise except in address).
- f)** You are not allowed to use data type **string** in any case.
- g)** Make separate functions to perform each task.
- h)** Inputs are to be taken in the main function only; **cin** cannot be used in any function other than **main()**.

A sample record will be as follows:

FirstName<space>LastName,<space>Address,<space>CellPhone,<space>LandLine<\n>

Aslam Khan, 358-P Model Town, Lahore, 0322-4973392, (042)35165533
Farhan Ahmad, 523-H2 Wapda Town, Lahore, 0334-8383381, (042)35187338

Note:

1. An address may include comma too, e.g. 123-H1, Johar Town, Lahore.
2. A cell phone number will only start with a 0.
3. Middle name cannot be entered in the record.
4. All entries will have first name, last name, address, cell phone and landline, none of the entry can be skipped.
5. Maximum number of records can be 1000.
6. Maximum number of characters (FirstName) should not exceed 15 characters.
7. Maximum number of characters (LastName) should not exceed 15.
8. Maximum number of characters (Address) should not exceed 30.