Assignment

for

Basic Programming Language

Assignment Code: PF07-BPL-A01

Assignment 01

TARGET

1. Learn how to organize a program with multiple functions
2. Learn how to combine the knowledge learned about loops, arrays, functions, structs, ...
3. Learn how to store and manipulate files
4. Learn how to debug a program
5. Get excited about building more complete programs

GENERAL REQUIREMENTS

Building a phone book management program includes the same functions as managing phone contacts on smart phones.

REQUIREMENT DESCRIPTIONS

The program includes the following main functions:

- Search your contact
- Add Contact
- Display favorites contact
- Display all contact list
- Display a contact details
    - Edit contact
    - Delete contact
    - Add to favorites contact

INTERFACE AND FUNCTION DETAILS

The program has the main menu as below, and when selecting the options, the program will operate as follows:

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 --- VTC ACADEMY CONTACT MANAGEMENT ---

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  1. SEARCH YOUR CONTACT
  2. ADD CONTACT
  3. DISPLAY FAVOURITES CONTACT
  4. DISPLAY ALL CONTACT
  5. EXIT APPLICATION
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 #YOUR CHOICE: 1

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  INPUT YOUR SEARCH: Nam

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+--------------------------------------------------------------+
|  No  | Full Name                                             |
+--------------------------------------------------------------+
|  1   | Nam Nguyen                                            |
|  2   | Nam Pham                                              |
|  3   | Nguyen Nam                                            |
+--------------------------------------------------------------+


INPUT CONTACT NO TO VIEW DETAILS OR INPUT 0 TO BACK MAIN MENU: 0

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 --- VTC ACADEMY CONTACT MANAGEMENT ---

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  1. SEARCH YOUR CONTACT
  2. ADD CONTACT
  3. DISPLAY FAVOURITES CONTACT
  4. DISPLAY ALL CONTACT
  5. EXIT APPLICATION
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 #YOUR CHOICE: 2

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  CREATE NEW CONTACT

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 First Name:   Nam
 Middle Name:  Van
 Last Name:    Nguyen
 Company:      VTCA
 Phone:        0123456789
 Email:        namnv@vtc.edu.vn
 Address:      Hanoi
 Birthday:     01/01/2000
 Website:      vtc.edu.vn
 Note:         VTCA Staff

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Create contact complete!

Press enter key to continue...
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 --- VTC ACADEMY CONTACT MANAGEMENT ---

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    1. SEARCH YOUR CONTACT
    2. ADD CONTACT
    3. DISPLAY FAVOURITES CONTACT
    4. DISPLAY ALL CONTACT
    5. EXIT APPLICATION
=====================================

 #YOUR CHOICE: 3

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 FAVOURITES CONTACT

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+------------------------------------------------------------+
|  No  | Full Name                                           |
+------------------------------------------------------------+
|  1   | Nam Nguyen                                          |
|  2   | Nam Pham                                            |
|  3   | Nguyen Nam                                          |
+------------------------------------------------------------+


INPUT CONTACT NO TO VIEW DETAILS OR INPUT 0 TO BACK MAIN MENU: 1

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 CONTACT DETAILS

=====================================

 First Name:   Nam
 Middle Name:  Van
 Last Name:    Nguyen
 Company:      VTCA
 Phone:        0123456789
 Email:        namnv@vtc.edu.vn
 Address:      Hanoi
 Birthday:     01/01/2000
 Website:      vtc.edu.vn
 Note:         VTCA Staff


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 1. ADD TO FAVOURITES
 2. UPDATE
 3. DELETE
 4. ADD FIELD
 5. BACK TO MAIN MENU


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REQUIREMENTS FOR PROGRAMMING AND FILE STORAGE

- Students can use arrays or pointers to temporarily store a list of data
- Functions are used to execute the menus and functions of the program
- The list of contacts is stored in the **contacts.dat** file

ASSESSMENT AND GRADING

Assessment	Description
Level 1: Passed	– Design a reasonable interface – Reasonable structure design – Using functions to perform basic program functions (functions 2, 4 in the main menu)
Level 2: Fair	– Use functions to solve all remaining functions of the program – Fully complete the interface and all the functions in the main menu 1 and 3 of the program – Store and process data with files
Level 3: Excellent	– Build logical functions (algorithm optimization, input parameters) – Use dynamically allocated cursors for the lists – Beautiful and reasonable interface design