

Programming Problem: The ASEAN Student Phonebook

BACKGROUND

Southeast Asia has 11 countries. If you have a classmate or schoolmate from this area, and you want to contact him, you can make an international call. Typically, to make that call, the country code has first to be dialled before the actual telephone number. Take note of the following ASEAN countries with their corresponding country codes.

ASEAN Country	Country Code
Federation of Malaysia	60
Republic of Indonesia	62
Republic of the Philippines	63
Republic of Singapore	65
Kingdom of Thailand	66
Socialist Republic of Vietnam	84
Brunei Darussalam	673
Kingdom of Cambodia	855
Lao People's Democratic Republic	856
Republic of the Union of Myanmar	95
Democratic Republic of Timor Leste	670

In the ASEAN phonebook that you are to create, there should be no limit with regards to the number of student entries to be stored in it.

MAIN MENU

First, there should be a menu, like the one below:

- [1] Store to ASEAN phonebook
- [2] Edit entry in ASEAN phonebook
- [3] Delete entry from ASEAN phonebook
- [4] View/search ASEAN phonebook
- [5] Exit

If a user selects an invalid option, this menu should keep on popping.

STORE TO ASEAN PHONEBOOK

Now, ask the user for the information of an individual to be stored to the phonebook. Here it goes:

```
Enter student number: 2004-56
Enter surname: Lee
Enter first name: Sukarno
Enter occupation: Doctor
Enter gender (M for male, F for female): M
Enter country code: 63
Enter area code: 2
Enter number: 4567890
Do you want to enter another entry [Y/N]? N
```

After entering the necessary information/fields, ask the user whether he wants to add a new entry, in which case a new set of prompting should happen. Otherwise, go back to the main menu.

EDIT ENTRY IN ASEAN PHONEBOOK

Ask the user for the student number. If it does not exist, alert an error. Otherwise, editing should proceed, like the one below, the “edit menu”:

```
Enter student number: 2004-56
Here is the existing information about 2004-56:
Sukarno Lee is a Doctor. His number is 63-2-4567890

Which of the following information do you wish to change?
[1] Student number  [2] Surname  [3] Gender  [4] Occupation
[5] Country code    [6] Area code  [7] Phone number
[8] None - Go back to main menu
Enter choice: 1
Enter new student number: 2005-67
```

Then after the new information has been entered, the “edit menu” should again pop, now displaying the modified information. The said menu should keep on popping until the user selects 8.

DELETE ENTRY FROM ASEAN PHONEBOOK

Ask the student number of the student to be deleted. If it does not exist, alert an error, else proceed, following the format below.

For delete (Y):

Enter student number: 2005-67

Are you sure you want to delete it [Y/N]? Y

Deletion successful

For delete (N):

Enter student number: 2005-67

Are you sure you want to delete it [Y/N]? N

Deletion did not proceed

After this, go back to the main menu.

VIEW/SEARCH ASEAN PHONEBOOK

Once this option is selected, the following menu, the “search menu”, should be shown:

- [1] Search by country
- [2] Search by surname
- [3] Go back to main menu

Search by Country

You can ask the user from which countries the students he wants to view. A user can select single or multiple countries. Once the countries are chosen, print all the students (with their corresponding information) from those countries. Printing should be according to surname, alphabetically. Furthermore if ALL is selected, all students, regardless of the country, should be shown. Follow this:

From which country:

- [1] Burma [2] Cambodia [3] Thailand [4] Vietnam [5] Malaysia
- [6] Philippines [7] Indonesia [8] Timor Leste [9] Laos [10] Brunei
- [11] Singapore [12] ALL [0] No more

Enter choice 1: 6

Enter choice 2: 2

Enter choice 3: 0 */* If zero is entered, that means, no more countries are included in the search */*

Here are the students from the Philippines and Cambodia:

Aldama, Bella, with student number 2000-123, is a doctor. Her phone number is 63-2-9998765

Balutin, Dilim, with student number 1999-890, is a sorcerer. His phone number is 63-8-1234567

Sihanouk, Nod, with student number 1991-000, is a prince. His phone number is 855-6-678123890

After printing the student entries, go back to the “search menu”.

Search by Surname

Ask the surname of the student/s to be searched. If it does not exist, alert an error, else proceed, following the format below. Print all students that have the searched surname.

Enter surname: Sihanouk

Sihanouk, Nod, with student number 1991-000, is a prince. His phone number is 855-6-678123890

After printing the student entry, go back to the “search menu”.