

COSC 1560 – Computer Programming II

Assignment 7

Deadline October 30, 2023

- 1) A program is required to keep track of speakers. The program should use a structure named 'Speaker' to store the following data about a speaker:

Name
Telephone Number
Topic
Fee Required

The appropriate data types should be determined for each data item.

The program should assume that at most 10 speakers will be identified, so an array of 10 structures should be created.

The user should be given the following options. For each of these options, a function should be implemented to conduct the task. Each function should accept an array as the first argument. In the first function, the second argument is the current size of the array. In the other functions, the second argument is the number of speakers currently stored in the array. Additional arguments may be needed for some functions.

- i) **Enter data into the array.**

void inputSpeakers(Speaker members[], int size, int& numSpeakers);

The actual number of speakers will be passed back as the third argument. When the data for a new speaker is entered, be sure the user enters data for all the fields. No negative amounts should be entered for a speaker's fee.

- ii) **Change the information for a particular speaker who is already stored in the array.**

*void updateSpeaker(Speaker members[], int numSpeakers,
const string& speakerName);*

The name of the speaker being updated will be passed as the third argument. Changes could be made for one or more of this speaker's 'Telephone Number', 'Topic', and 'Fee Required'.

- iii) **Display a specific speaker's information.**

The name of the speaker to be displayed will be passed as the third argument.

- iv) **Display the people speaking about a specific topic.**

The name of the specific topic should be passed as the third argument. All speakers who are speaking about this topic should be displayed. If no speakers are speaking about this topic, then an appropriate message should be displayed.

- v) **Display all the data stored in the array.**

- 2) As a slight modification of the previous program requirements, assume we do not know in advance how many speakers will be involved. However, when the program begins the user will know the actual number and therefore can enter this information into the program. Create a separate program with this modification.

As with all programs, ensure that the output is designed to clearly describe the information being displayed.

THE DEPARTMENT STANDARDS FOR "STYLE GUIDELINES" SHOULD BE FOLLOWED IN ALL CODE.