

COSC 1437.3S7 SEMESTER PROJECT

ASSIGNMENT:

Create an application to manipulate an array of student record objects. A student record will consist of a name (first, middle, and last), an ID number (9 numeric digits, cannot be more or less), an address (street, city, state, and 5 digit Zip code), and a phone number (3 digit area code and 7 digit number). The application will support an array of students. The user will be allowed to enter records from the keyboard, sort records by either name (last, first, middle) or by ID, save the records to a disk file (name supplied by user), and read the records from a disk file (name again supplied by user).

Create a fixed length string that must check that the length of the string is the required length. The fixed length class should be done as a template with the number of characters as the template argument. From this fixed length string, derive a class to hold digits of a fixed length.

Create component classes as necessary to use together to implement the student record class.

Use either the array template created in an earlier lab to handle the array or you may use the **vector** class from the STL to handle the array of student record objects.

The maximum number of students will be 25 (it may be less).

TO TURN IN:

- 1) An electronic copy of the .cpp and .h files in the project folder as created by Visual Studio. This will be emailed to the instructor with the subject line "COSC 1437.3S7 – Project".
- 2) If you wish any feedback on your work, turn in a printed listing of the .cpp and .h files that you created.

DUE DATE:

3 August 2017