CECS 174 – Project 6

Create a program that reads in the information for a list of songs. You should create a Song class that has a title, artist, album, length, etc. (These data members should be private and only accessible by get and set methods). Create a static variable that keeps track of the number of songs created. Also write a method to display a song.

In your main, you should create an array of songs that will be filled with the information listed in the SongList.txt file provided.

Provide functionality to:

1. Search for a particular song title.
    a. if the title is found, the information on that song is displayed.
2. Search for an artist.
    a. list all songs by that artist.
3. Search for an album.
    a. list all songs on that album.
4. Add a new song to the list.
    a. the user will be prompted for all of the information, one piece at a time.
    b. the song will be added to the end of the array until the user quits, then it will be added to the file.
5. Sort the songs list (A – Z) by Artist. If there are multiple songs by the same artist, put those songs in alphabetical order by Title.

Notes

- The input and output file are the same file. Place it into the project folder.

- Assume the list of songs is less than 50 songs.

- When writing to the file, it will delete the original contents and then begin writing to it. This means you will need to write the contents of the entire array when you are ready to write to the file.

- Add any new songs to the array until the user wants to quit the program, and then write the entire contents of the array to the file.

- Create a menu so the user can choose from the different possible functions.

- Check all user input for validity.

- Use the sorting algorithms from Lecture 17, but instead of comparing numbers, compare strings. Use the string function compareTo() or something similar.