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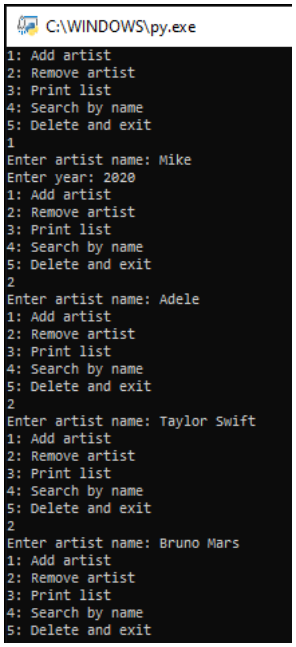
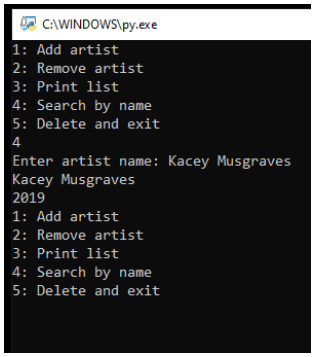
Lab09

This program is a recreation of the previous Grammy Winner labs. For this program though, it is written in Python. Python's arrays are handled like lists, so creating a linked list like previous labs is much easier. Documentation on the array object in Python was utilized to identify the right class functions to use in this program. The documentation can be found on Python's website: https://docs.python.org/3/library/array.html. The main functionality utilized in this lab was the ".append()" and ".remove()" functions. Appending puts an object at the end of the list. Remove either removes the last entry from the list or the specified entry as a parameter. These two functions allowed the creation of an addName() and removeName() function to be significantly easier. All other functions revolved around searching through the array/list for an object and manipulating it in some way. One significant difference between C++ and Python is data types. Python variables can be instantiated without a specified data type. This is advantageous because the variables are very versatile. But, when taking input from a text file or a user, the incorrect data type may be used.

Aside from minor changes in syntax and the inconsistent variable types, utilizing the array object in Python was significantly easier than previous labs. It does not feel as robust as Lab 5, but the functionality is the same. The Grammy winner text file is read in and a list is populated of the previous winners. The user is still able to add winners, remove winners, print the list, search by name, and exit the program. The user experience from lab to lab has remained the same as well, proving that there are multiple ways to provide the same user experience.





Picture 2 and 3 are from the same run. Picture 2 shows the inputs from the user and picture 3 shows the output to the terminal.