

Implementation details and comments on the design decisions

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Start

- I started my program with stating all variables that I later used in my code

Input

- For reading input from a user I used fgets command, it is better than using scanf as it allows the use of spaces
- Input was read in using 2 for loops, outside loop was made to store artists names and inside for loop was saving songs for each individual artist

Sorting

- For sorting songs and artists I used the quicksort algorithm that was provided to us on csmoodle website, it is the quickest and most efficient way that allows to sort artists and their songs alphabetically

Linking songs with artist

- I came up with my own idea to link songs and artists after they are both sorted alphabetically
- This allowed me to easily link song with its artist and vice versa
- Code I used uses various arrays and if statements to determine which song belongs to which artist and vice versa

Shuffling

- For shuffling I used Fisher Yates algorithm because it is very efficient and not hard to code as it is simple to understand
- I also moved all the songs into single array so shuffling can be done easier
- I implemented Fisher Yates shuffling algorithm by creating prototype of a function and following steps given in a lecture