Lab3 documentation

1. Resources

For this lab I imported the CSV file from Spotify Charts. For the week of 08/27/2020 in the United States. I took off the header.

2. Prerequisites

In order to be able to use this program efficiently, the user must use a csv file (without the header) that follows the chart:

Position	**Track name**	**artist**	**streams**
…	**….**	**…**	**….**

The user must have two files (*input.csv* and *ArtistsSorted-WeekOf10012020.txt*) located in the same directory as the Lab3.java file.

3. Implementation

Problem description:
A record label executive received text files that contain the top streamed music artists during certain weeks. It just so happens that this imaginary VIP client has a thing for alphabetized lists and wants to see the artist names in alphabetical order.

How I wrote the program:
First, I wrote a function called Filter which takes a string (a line of the csv file) and then filter it (the line) to get only the artist name then return it (the name). I used an arrayList to store the position of the commas which separate the columns (and ignore all other commas inside the line). Then I used those position to get the artist name (by using the substring method).

Second, I created a class Artist which contains the name of the artist and a pointer to an address (next). Then I created a class TopStreamingArtists which is a list of artists, it contains the address that points to the list (first). I also created some methods for the class, such as:

- ***insertFirst(String s):*** to insert an element inside the list
- **isEmpty():** to check whether the list is empty or not
- **find(String s) :** to check if the name "s" already exist
- ***sortList():*** to sort the elements of the list by ascendant order (A…..Z)
- ***display(PrintStream ps):*** to print the elements of the list inside the output file (*ArtistsSorted-WeekOf10012020.txt)*

Hint: There is no redundancy inside the output file (the name of an artist is print only once)