

Lab2 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 *Artists-WeekOf09052020.txt*) located in the same directory as the **Lab1.java** file.

3. Implementation

Problem description:

A record label executive received text files that contain the top streamed music artists during certain weeks. In order for their in-house IT to be able to process the information, they need someone to help process it.

First, the exec wants to know which artists appears on the list and how many times they appear.

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 used a Hashmap(the variable “*storage*”) to store the <artist name, number of appearance>. Inside a while loop I read from the input file(*input.csv*) each line and use the function **Filter** to get only the artist name, then store it as a key inside the variable *storage*. If the name of the artist already exists, the number of appearances is increment by 1. Otherwise, I store the new name and set the number of appearances to 1.

Third, I used a for loop to iterate through the Hashmap and print the information inside the output file (*Artists-WeekOf09052020.txt*).

Hint: the artist name get from each line of the csv file is the main artist (the one list at the **artist** column)