

ASSIGNMENT 1

You have a long list of the songs in your album music. Each song has the following information:

Song name (String type), Artist (String type), Rated (int)

The information of the song list is stores in the file “songs.txt” with the format:

<song name>|<artist>|<rated>

For example:

Fields of gold|Eva Cassidy|2

Dancing in the moonlight|Jubel|3

Money|Abba|1

Fields of gold|Fourplay|2

Papa|Paul Anka|4

Dancing in the moonlight|King Harvest|4

Fields of gold|Celtic Woman|3

YOUR TASK:

1. Reading the list of the songs from the file, check if the song name lasts with ‘y’ or rated ≤ 1 then do nothing, otherwise add the song to the linked list with the same order in the file.
2. Traverse the linked list you just created.
3. Display the average of all rated in the list.
4. Delete all the songs have the third highest rated.
5. Write the list after step 4 to the file “output.txt” with the same format of the input file.
6. **Remove duplicate songs** (according to the song name) in the list: for each duplicate song name, **keep the song which have the highest rated** and **remove the others**. For example, 2 songs following have same name, the song in the red color will be removed.
Dancing in the moonlight|Jubel|3
Dancing in the moonlight|King Harvest|4
7. Traverse the list after step 6.