**EX 3 – ARTIFICIAL INTELLIGENCE**

1. **NON PERSONALIZED**

For non personalized recommender system, we’ll calculate the weighted average rating for each book.

The data we need is:

Books and ratings. In the file books.csv: books\_id and title. And in the file ratings.csv: books\_id and rating.

(It recommends according to the rating and all users have the same recommendations.)

For following questions, we’ll also need more informations on the users if we want to target the recommendations (like place and age).

1. **Get simply recommendation:**

To get the k best recommedations,

- We first, calculated the number of voters for each book : v

- We calculated the average rating for each book : R

- We fixed the minimum number of voters, like in the Tirgul : (quantile(90)) : m

- We got the average rating of all books : C

- Finally, we calculate the weighted average rating :

WR =

-The function returns the k books getting the highest value of WR.

The 10 recommended books are:



We used dataframes and the pandas package to get all of those results.

1. **Get simply place recommendations.**

We’d like to do the same, but we want to target the recommendations according to the living location of the user.

The 10 recommended books for Ohio are :



1. **Get simply age recommendation**

We want to target the recommendations according to the age of the user.

The 10 recommended books for a 28 year old user are :

