## PySpark Dataframe assignment

## **Rules:**

- For each question, show 100 rows of the results without truncated.
- Teams with 4 members are required to complete all **8** questions in the assignment. Teams with 3 or fewer members are required to complete questions from **1 to 6** in the assignment.

Load data from movies\_small.csv and ratings\_small.csv to dataframes and perform the following tasks:

- 1. Show the number of movies made in each year. The results are sorted by year.
- 2. Show the number of movies belonging to each genre made in each year. The results are sorted by year. The results of each genre are supposed to be displayed in a column.
- 3. For each userID, show the average rating of that user for each genre. The results are sorted by userID. The results of each genre are displayed in a separate column.
- 4. Show the name, the year, the number of ratings, and the average rating of each movie. The results are sorted by the years and (then) the names of the movies.
- 5. For each user ID, show the genre that received highest rating from that user and the list of top 5 rated movies belong to that genre that hasn't been rated by that user. The results are shorted by the user ID.
- 6. For each user ID, show the two genres that received highest rating from that user, and the list of top 5 rated movies that belong to both genres and hasn't been rated by that user. The results are shorted by the user ID.

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- 7. Show the years of the first\_appearance of 'Fantasy' and 'Sci-Fi' movies
- 8. For each user ID, show the list of top 5 movies made after 2000 that received highest reating from that user. The results are sort by user ID.