CS-UY 3083
Fall 2019
Prof Frankl

HW 4

Use the University database for problems 1 -- 6 and the PersonSawMovie database for problems 7 -- 12.
You may need to insert additional rows into some of the University or Movie database tables to test your queries thoroughly.
We may ask you to hand in a plain text file with your queries (numbered and in the given order), as well as a pdf file. More details soon.

1. Find the number of students who've taken CS-101

2. Find the number of students who've gotten each grade in CS-101. The result should be a relation with attributes named grade and num.

3. Find the number of courses each student has taken. The result should be a relation with attributes named ID and num_courses. If a student has taken the same course more than once, it should only be counted once.

4. Find the total number of credits each student has passed (grades other than F or NULL), based on the information in the takes table (not on the student.tot cred attribute)

6. Find IDs and names of students who have a total of at least 10 credits in courses they've passed (grade other than 'F' or NULL). The result should have attributes ID, name, credits_passed.

7. Find the number of viewers of each movie. Remember that a movie is identified by its title and year, together. The result should have three attributes, title, year, and num_viewers.

8. Find the name of each Person and the titles, year, and MPAA of movies they saw. The result should include People who didn't see any movies, with NULLs for the title/year/MPAA. (You may add insert some rows to one or more of the tables in order to test this properly).

9. Find the title, year, number of viewers, and average number of stars for each movie that was released since Jan 1, 2010 and that was viewed by at least three people

10. Find the number of different release years for each title that was used for more than one movie (i.e. same title different release year).

11. Find the title and year of each movie that someone rated with 5 stars and someone else rated with fewer than 3 stars. Your query should use the WHERE … IN (subquery) structure.

12. Repeat problem 11, but this time use a JOIN of some table with itself.