

Homework 3  
CS-UY 3083, Intro to Database Systems  
Fall 2019  
Prof Frankl

Due Sun Oct 6. (Note that after this, we'll go back to Thurs or Fri deadlines and there will be something due on Fri Oct 11.

You may work alone or with one or two classmates. Hand your work in via GradeScope.

Remember to mark which problem is which (points will be deducted if you do not do so.)

Problems marked with a \* deal with material that will be covered in the lecture on Monday 9/30 (NATURAL JOIN). All other problems use material covered on or before Wed 9/25

1. For this problem, Consider the **takes** and **student** tables from the university database that you imported in HW 0. Using netID of a member of your group as student ID, Write SQL queries for each of the following:
  - a. Find the course\_id and grade for each course that the student whose ID is <your net ID> has taken.
  - b. Find the course\_id and grade for each course that the student whose ID is <your net ID> took in 2018
  - c. Find the student ID of each student who took course\_id 'CS-UY 3083' in Fall 2019
  - d. \* Find the name of each student who took course\_id 'CS-UY 3083' in Fall 2019
  
2. For this problem, Consider the **takes** and **student** tables from the university database that you imported in HW 0. **Execute each of the queries you write.** Your answers should include the SQL query and the result of executing the query on the given data. (You can print the relation your GUI displays or export it to a pdf file.)
  - a. Find the ID, course\_id of students who got 'A' grades in any course(s). (That is, find the ID of each student who got any A's and the course\_ids of courses in which they got 'A's; the result should be a table with attributes 'id' and 'course\_id').
  - b. Find the ID, course\_id of students who got a 'B' or better in CS-101.
  - c. Find the ID, course\_id of each student who has NULL grade in a course
  
3. For this problem, use the MovieViewing data that will be provided soon. You are encouraged to import the data and execute the queries, but you only have to hand in the query, not the result
  - a. Find the title and year of each movie with MPAA rating 'PG'
  - b. Find the title of each movie released in 2019

- c. \* Find the title and year of each movie that was watched by anyone who has the same first name as anyone in your group
- d. \* Find the ID and name of each person who rated some movie 5 stars, as well as the title and year of those movies to which they gave a 5 star rating.