

NYU Tandon School of Engineering  
Computer Science and Engineering  
CS-UY 3083, Introduction to Database Systems, Fall 2018 Prof Frankl

## **HOMEWORK #2**

Hand in your solutions via GradeScope

You may work with up to four other students.

You are strongly advised to add data to the University database in order to test your SQL queries thoroughly. Do not hand in the test data or the results of executing the queries; just use it to check your work.

**Part 1** Using the University Database schema, Write SQL queries (SELECT statements) for each of the following:

1. Find IDs of students in the Comp. Sci. department
2. Find IDs and names of students in the Comp. Sci. department who have fewer than 60 credits
3. Find IDs of students who got an A in CS-101. Note: data on which courses students took and their grades are in the Takes table.
4. Find IDs of students who got an A in CS-101 in Fall 2009
5. Find IDs and names of students who got an A in CS-101
6. Find IDs and names of students who got an A in CS-101 or in CS-190
7. Find IDs and names of instructors who taught courses with 'CS' in the title, along with the titles of the course(s) each of them taught. In SQL, `LIKES (*foo*)` is true for strings that have `foo` as a substring.
8. Find names and IDs of students who've taken courses from instructors with salaries over 75000. Note: Be careful about common attributes between the Student and Instructor tables.
9. Find IDs and names of instructors who've taught in the Taylor Building

**Part 2** Use the TVSeries database schema for the following. NOTE: The schema will be posted after the HW 1 due date.

10. Write INSERT statements to add at least three people to the Person table. Each of them should have at least one phone number, at least one of them should have multiple phone numbers.

11. Write INSERT statements to add data about two of those people watching at least two TVSeries each.
12. Write a query to find the titles of TVseries that have run for 10 or more seasons.
13. Write a query to find the the titles of TVseries that are currently running in 2018. (Assume the year a season ended is its start year + number of seasons)
14. Write a query to find the first names of people who watch 'The Big Bang', 2007 'The Big Bang', 2007
15. Write a query to find the phone numbers, first names, and last names of people who watch 'The Big Bang', 2007
16. Write a query to find the phone numbers of people who watch 'The Big Bang', 2007