

CSE311L

Practice Assignment 2

Students at your hometown high school have decided to organize their social network using databases. So far, they have collected information about sixteen students in four grades, 9-12. Here's the schema:

Highschooler (ID, name, grade)

English: There is a high school student with unique ID and a given first name in a certain grade.

Friend (ID1, ID2)

English: The student with ID1 is friends with the student with ID2. Friendship is mutual, so if (123, 456) is in the Friend table, so is (456, 123).

Likes (ID1, ID2)

English: The student with ID1 likes the student with ID2. Liking someone is not necessarily mutual, so if (123, 456) is in the Likes table, there is no guarantee that (456, 123) is also present.

Tasks

1. Find the names of all students who are friends with someone named Gabriel.

name
Jordan
Alexis
Cassandra
Andrew
Jessica

2. For every pair of students who both like each other, return the name and grade of both students. Include each pair only once, with the two names in alphabetical order.

name	grade	name	grade
Cassandra	9	Gabriel	9
Jessica	11	Kyle	12

3. Find all students who do not appear in the Likes table (as a student who likes or is liked) and return their names and grades. Sort by grade, then by name within each grade.

name ▲ 2	grade ▲ 1
Logan	12
Jordan	9
Tiffany	9

4. Find the difference between the number of students in the school and the number of different first names.

Difference
2

5. Find the name and grade of all students who are liked by more than one other student.

name	grade
Kris	10
Cassandra	9

6. It's time for the seniors to graduate. Remove all 12th graders from Highschooler.
7. Its new year and students of 9th, 10th and 11th grades are promoted to next class. Modify Highschooler table accordingly.
8. Create a trigger on Highschooler. After updating a row on Highschooler, your designed trigger will insert current date and time in timestamp format on daten table.