

(CL-219) Database Systems Lab

Spring 2021

FAST-NU Peshawar Campus

Assignment # 01

- The due date for this homework is **April 22nd, 2021**
- There is **25%** penalty for late submission.
- Copied assignments will be awarded **zero** marks.
- All submissions should be made on Google Class Room.
- Upload only a PDF/MS word file including all tasks.
- Note that these assignment marks could be graded through a quiz (viva) in class.
- Label the queries properly and do not submit (only) screenshots of the query.

Question # 01 Download the employee.sql and load_data.sql script from the Google Classroom and run it using mysql console. After running the scripts you will get the following tables (populated with dummy data) as show in figure 1.

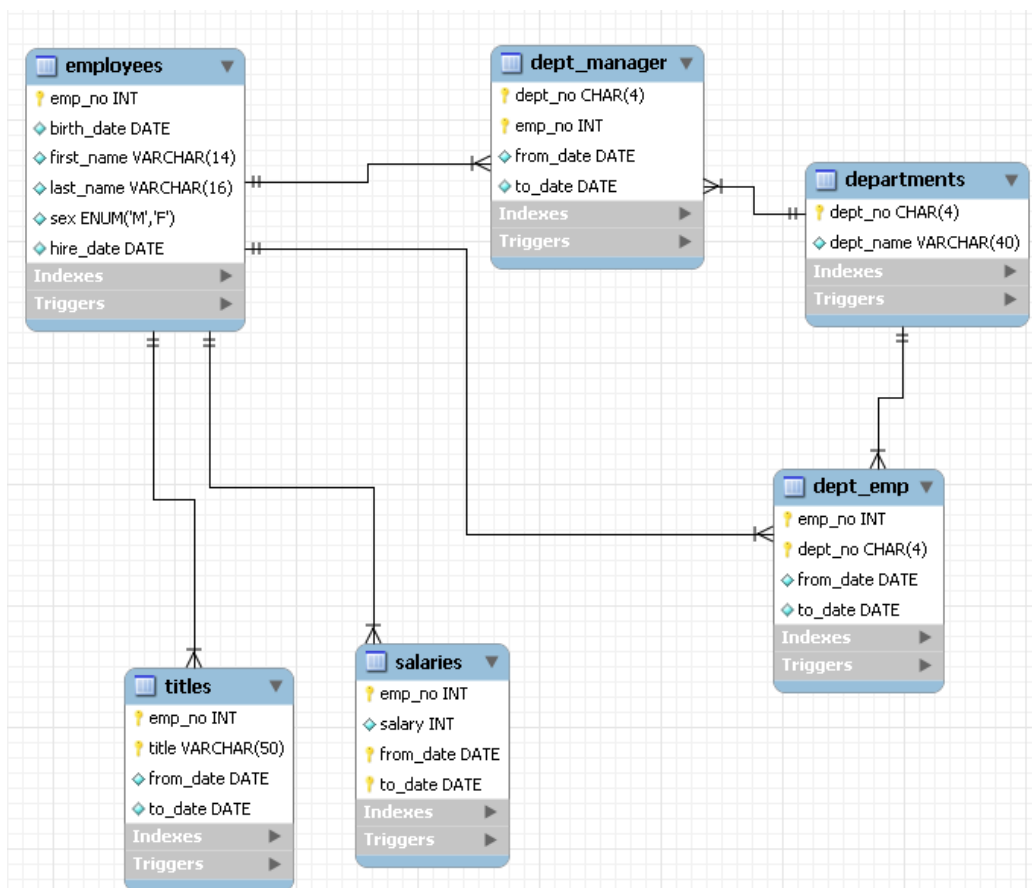


Figure 1 Employee ERD Diagram

1. Find all the employees that contains at least one vowel in their last name.
2. Write a Query to display the number of Male (M) and Female employees in the employee database.
3. Display the TOTAL SALARY drawn by employees having emp number (10001,401829).
4. Display the employee number, first name, last name, and salary of the lowest payed employee.
5. Write a Query to find all the employees that have worked in at least 2 departments. Show their emp number, first name, last_name and the number of departments they work in.
6. Display the employee number, first name, last name, and salary of the second and third highest payed employee.
7. Write a Query to display employee first name, last name and the department in which he/she worked.
8. Display the employee number, first name, last name, and salary of the third highest payed employee.
9. Have you noticed an optional clause (ON DELETE CASCADE) in the script employee.sql for Foreign key declaration. Elaborate this clause with example.
10. Delete every employee who was hired after 31st December 1999.
11. Update the employee number (10004) title to Project Manager.
12. Modify the column dept_name characteristics in the department table by changing the string characteristics from varchar(40) to varchar(60).
13. Rename the salary attribute to payslip in the salary table.
14. Rename the table titles to job_description.
15. Rename database employee to employee_v2 and then delete the database.

Question # 02

1. Create a database named school_system.
2. Create all the tables with primary and foreign key constraints as shown in figure 2

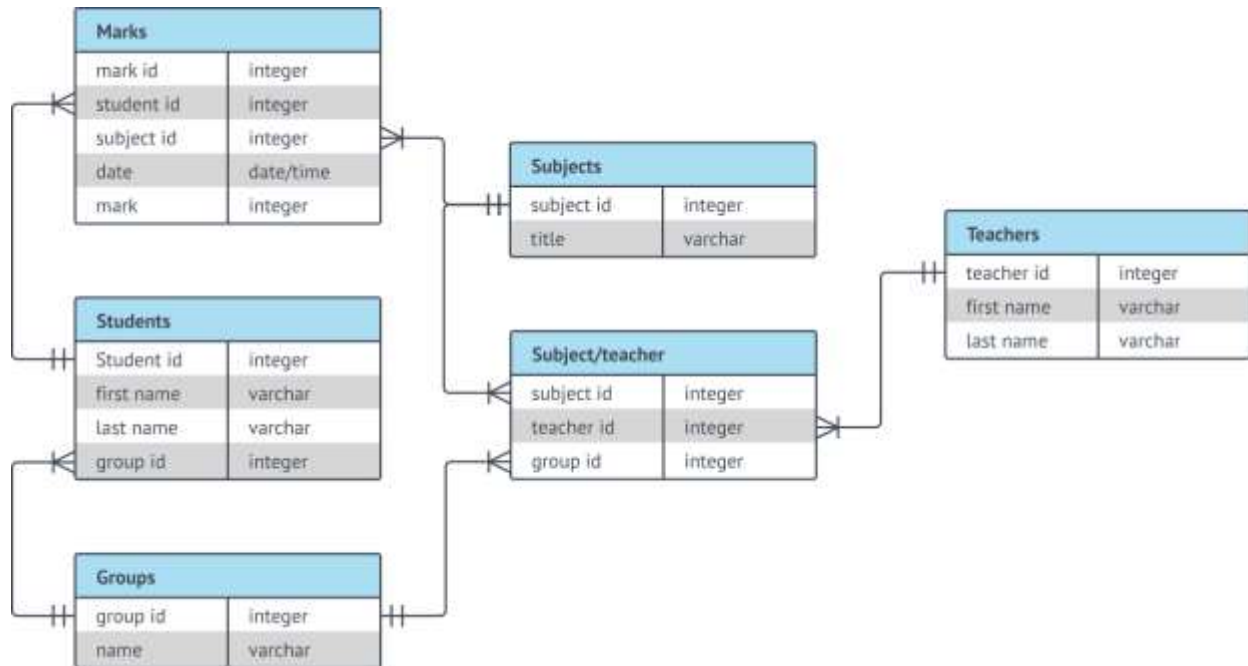


Figure 2 School Management System ERD