

Relational Database Design – Company Schema – Nested Queries

Reference: Elmasri, R., 2018. Fundamentals of database systems. Pearson Education India.

1. With continuation to Session 03 exercise, execute all the example queries provided in Subsection 7.1.1 to 7.4.2 (excluding keywords 'TRIGGER', 'VIEW', 'EXCEPT' and 'CONTAINS').
[Viva due: 08/08/2024 at 05 30 PM]
2. Execute the following Queries over the Company Schema you have already created.
 - a. For each department whose average employee salary is more than 30,000, retrieve the department name and the number of employees working for that department.
 - b. i. Retrieve the number of female employees in each department making more than 30,000.
ii. For each department whose average employee salary is more than 30,000, retrieve the department name and number of male employees working for that department.
 - c. Retrieve the names of all employees who work in the department that has the employee with the highest salary among all employees.
 - d. Retrieve the names of employees who make at least 10,000 more than the employee who is paid the least in the company.
 - e. Retrieve the names of all employees in department 5 who work more than 10 hours per week on the Product X's project.
 - f. List the names of all employees who have a dependent with the same first name as themselves.
 - g. Find the names of all employees who are directly supervised by 'Tejaswi Kumar'.
 - h. Find the names of employees who work on all the projects controlled by department number 5.
 - i. For each project, list the project name and the total hours per week (by all employees) spent on that project.
 - j. Retrieve the names of all employees who work on every project.
 - k. Retrieve the names of all employees who do not work on any project.
 - l. Retrieve the average salary of all female employees.
 - m. Find the names and addresses of all employees who work on at least one project located in Madurai but whose department has no location in Madurai.
 - n. List the last names of all department managers who have no dependents.
 - o. Display employee names (e'') who are supervised by an e' who is immediately supervised by an employee with lname "XYZ".
 - p. Display names of all employees who work on some project controlled by department number 10.
 - q. Print all the ssn and the first name of supervisors who supervise at least 2 projects in ascending order of the number of employee he/she supervise under him/her.
 - r. Display all male employee names who also have dependents along with their dependent names.
 - s. Display those employees whose salary exceeds the department managers salary that the employee(s) work for.
 - t. Display employee names who either work in CS department or supervise an employee working for CS department.