

Department of Computer Science and Engineering

CS6106- Database Management Systems

Spot question on Joins and Nested Queries

1. Write a SQL query to display the names and departments of all employees, including those who do not belong to any department in the company. Hint: Use a LEFT JOIN to achieve this.
2. Suppose there is a table named “departments” with columns: department_id and department_name. Write a SQL query to list the names of all employees along with their corresponding department names. Use an INNER JOIN to match employees with their departments.
3. Consider the following scenario: there is an employee table and a separate table named “projects” containing columns: project_id, project_name, and employee_id (indicating the employee assigned to each project). Write a SQL query to display the names of employees along with the names of projects they are assigned to. Use an INNER JOIN to accomplish this, ensuring that employees without any assigned projects are excluded from the result. How would the result change if we used a RIGHT JOIN and a LEFT JOIN?

Nested Queries:

1. Write a SQL query to find the names of employees who earn more than the average salary of all employees in the company. Use a nested subquery to calculate the average salary (should not be a separate query).
2. Consider a scenario where there is a table named “managers” containing the IDs of all managers in the company. Write a SQL query to list the names of employees who are not managers. Use a nested subquery to exclude employees who are also present in the “managers” table.
3. Suppose there are two tables: “employees” and “departments” with columns: department_id and department_name. Write a SQL query to find the names of employees who work in the same department as employee with ID 1010. Utilize a nested subquery to retrieve the department of employee 1010, then join (use any appropriate join) it with the employee table to find other employees in the same department.