

Online on Advanced SQL

Time: 55 + 5 mins

Section: C1 + C2

Marks: 5 * 5 = 25

Read all the questions carefully. A row from the desired output has been attached to every question for your better understanding of the display format. **This row may or may not be the top row of your answer.**

1. List departments where **every employee** has at least one job change, and display the department name and the number of employees. Use a CASE statement to show if the department's average salary is 'Above' or 'Below or equal to' the company average.

| DEPARTMENT_NAME | NUM_EMPLOYEES | SALARY_STATUS |
|-----------------|---------------|-----------------------------------|
| Administration | 1 | Below or Equal to Company Average |

2. Find employees who are either among the top 3 highest-earning employees in their department or have a job title not held by anyone else in their department, or both. Exclude those who work in a department with a manager whose first name is 'Steven'. Additionally, print a type for each employee as either "Top 3 Salary" or "Unique Job" (for employees satisfying both the criteria, printing either of the types will suffice).

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | TYPE |
|-------------|------------|-----------|--------------|
| 100 | Steven | King | Top 3 Salary |

3. List the department_name, city, and country_name for departments that have no employees hired before July 1, 2000, have a manager, and the manager's job is not titled 'Stock Manager'. Display only departments that have at least one employee in ascending order of country and descending order of city. If there still exists a tie, display the lexicographically smaller department_name first.

| DEPARTMENT_NAME | CITY | COUNTRY_NAME |
|-----------------|---------|--------------|
| Marketing | Toronto | Canada |

4. Find all employees who have a job title with a minimum salary greater than the average minimum salary of all jobs, and work in departments that have more than 5 employees.

| EMPLOYEE_ID | FIRST_NAME | LAST_NAME | JOB_ID | MIN_SALARY | DEPARTMENT_NAME |
|-------------|------------|-----------|--------|------------|-----------------|
| 147 | Alberto | Errazuriz | SA_MAN | 10000 | Sales |

5. For each department, calculate its total salary expense. Categorize this expense as 'Low' (total salary ≤ 15000), 'Medium' (total salary > 15000 and ≤ 50000), 'High' (total salary > 50000 and ≤ 100000), or 'Very High' (total salary > 100000). Display department_name, total_salary_expense,

and expense_category in descending order of the total salary expense and ascending order of department_name. Include departments with no employees (their total expense should be 0 and categorized as 'Low').

| DEPARTMENT_NAME | TOTAL_SALARY_EXPENSE | EXPENSE_CATEGORY |
|-----------------|----------------------|------------------|
| Sales | 304500 | Very High |