Lab 06: SQL…

Objective

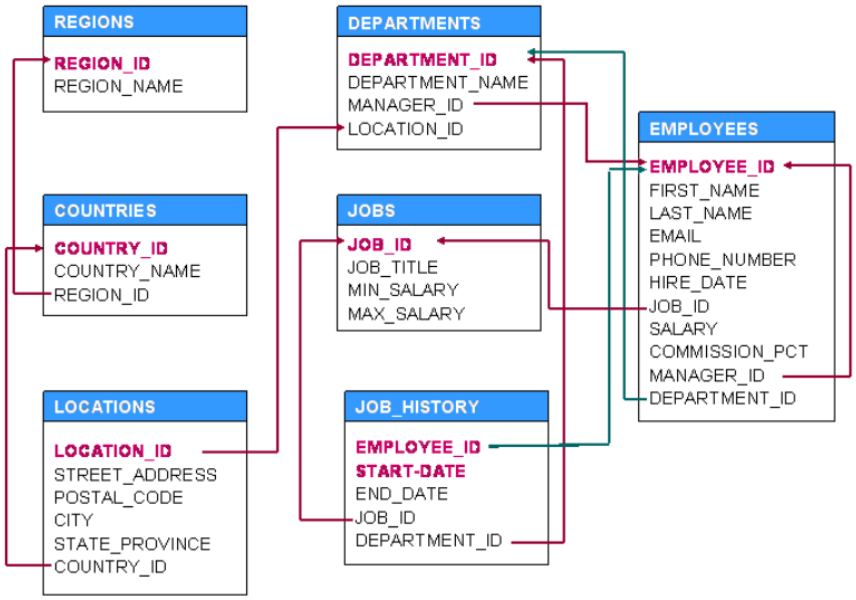
The students should be able to understand the usage of:

- Subqueries
- With clause
- Exists clause
- Case clause
- Views
- Update
- Delete

Submission Requirements

Save your script file and upload it to LMS.

HR Database Schema



SQL queries

Write and execute SQL queries for the following information needs:

Subqueries

1. Find the full name and salary of the employees having higher salary as compared to the employee whose name is Alexis Bull. Use WITH clause to temporarily name the query that retrieves salary of Alexis Bull as Alexis_Salary.
2. Find all information of all employees who work in the IT department.
3. Find the full name of the employees who have a manager and worked in a department based in US. *Hint*: nested subqueries, use of IN
4. Retrieve all information of employees whose salary is greater than the average salary.
5. Output the first_name, last_name and salary of the employees who earn a salary that is higher than the salary of **all** the Sales Representatives (JOB_ID = 'SA_REP'). Sort the results in ascending order of salary.
6. Output all information of the employees who are managers.
   Hint: check for existence of records where manager_id is the same as employee_id in the outer query.
7. Write a query to display the employee ID, first name, last name, salary of all employees whose salary is above average for their departments.
8. Write a query to list the department ID and name of all the departments where no employee is working. *Hint*: not exists

Views

9. Create a View named JonathonTaylor_JobHistory to summarize the job_history for Jonathon Taylor. Output start_date, End_date, Job_title, Department name and order the results by end date with the recent most date at the top. (You may use joins.)

Set operators – Minus, Union, Intersect

10. Find all employee ids that do not have a job history.
11. Ouput a single list of full names of employees followed by names of departments.
12. Find list of employees who are managers of a department and also have some employees working under them. Output the full name.

Case

13. Retrieve the average salary (rounded to 2 decimal places) for each department name. Use the case clause to add a new column that shows the salary categories for each department. Greater than 10,000 classify as High, between 5000-10000 as Medium, and less than 5000 as Low. This new column should be called salary_category.

Update and Delete

14. Modify employee information: *(LiveSQL does not allow alteration of tables)*
    a. Update the record of Steven King in the employees table. Set the commission to 0.5.
    b. Assume Alexandar Hunold has been fired. The employees or departments he was managing will now be managed by Alexandar's manager. Update the records to reflect this change.
    c. Delete Alexandar Hunold's information from the system.

Business Queries

For this part, you may use any of the SQL methods studied so far
i.e. subqueries, joins, group by, etc.

15. The company intends to send out an appreciation email to all employees who have served for more than 10 years. There is a special poster for each department that will be designed by the marketing team and the email will be sent out from the department manager's email address. Write a query to retrieve the required information to complete this task. Write clearly in comments justifying your choice of attributes to project in the output.
16. The CEO would like to view a complete department-wise summary including, average/min/max salaries, number of employees, manager name, latest hiring date. Generate a report to provide relevant information for each department.