SQL Query Project on a Known Dataset

Instructions
You will write a SQL script which includes the seven queries listed below.

Pre-requisite:

1. You must be able to develop your script with access to an Oracle instance, preferably from data.cs.purdue.edu.
2. Transfer the following files to your folder on data.cs.purdue.edu using scp:
    1. create_employee.sql
    2. drop_employee.sql

Requirements:

For each query listed below, you must write the appropriate SQL statement.

Also note that it is not sufficient to determine the answer to the query manually then write a nominal query to produce the results. For example if you ascertain that the results should be "Finance" and you submit `SELECT department_name FROM department WHERE department_name = 'Finance'` then you should expect nominal points.

Your Tasks:

1. Run the create_employee.sql script to populate the necessary tables.
    1. Once you complete the assignment or you need to clean up, you can run drop_employee.sql
2. Demonstrate your ability to write SQL queries by crafting SELECT statements for the queries below:

Query 1: Find Employees Who Aren't Assigned to Any Projects
Description: Write a query that returns the names of employees who are not assigned to any projects. The query should return one column: employee_name.

Query 2: Find Employees Who Have Worked on Multiple Projects
Description: Write a query that returns the names of employees who have been assigned to more than one project. The query should return one column: employee_name.

Query 3: Find Employees in HR Hired Before 2023
Description: Write a query that returns the names of employees are in the HR department and hired before 2023. The query should return two columns: employee_name and hired_date.

Query 4: Count Projects For Every Department
Description: Write a query that displays the number of projects for each project department. The query should return two columns: department_name and project_count. Your query must return a single row for each department (there are 4) regardless of whether there is an active project for that department. Finally, sort your results. The project with the largest number of projects at the top. If two departments have the same number of projects, those departments should be sorted in alphabetical order.

Query 5: Count Managers on Each Project
Description: Write a query that returns the names of projects and the count of associated employees who are managers. For purposes of this query, a manager is anyone whose employee_id exists in the manager_employee_id column. The query should return two columns: project_name and manager_count.

Query 6: List all potential teams
Description: Write a query to get all potential teams of three such that the team contains one member from HR, Finance, and IT. The

query should return three columns: it_employee_name, finance_employee_name, and hr_employee_name

Query 6B: Add more
Description: Conveniently, Daisy once worked in HR. You have two tasks here. First, write another query to list all teams of Daisy (as if she was HR), Finance (excluding Daisy, because she's in the HR role), and IT. Second, take this second result set and union it with that from Query 6.

Submitting your work:

1. All work must be submitted via a single SQL script. The file name should be in the format "CSCI311-Project3-last_name-first-name.sql" where last_name and first_name are your actual names.
2. Your script should run without error from beginning to end and produce the desired result sets. It is only required to contain the 7 SELECT statements (you may omit the original DDL and DML).
3. Upload your script to this assignment in Brightspace.

Grading:

Criteria	Points
Adheres to submission instructions and template	9
Queries (7 queries, 13 points each)	91
TOTAL	100

IMPORTANT ADVICE:

- Work to format your code nicely. Code which is poorly formatted may run, but is definitely harder to read and graders may not be able to identify all of your hard work.

- Upload your submission before the due date. You don't want to miss points due to an issue with Oracle.

Submissions

CSCI311-Project3-Ali-Raja.... (2.75 KB) Oct 13, 2024 7:35 PM

Drop files here, or click below!

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Comments

Paragraph

Activity Details

Well done! You have completed the assignment

Due October 14 at 11:59 PM

Assessment

100 / 100

100 %

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