#### **SQL PROGRAMMING- README**

#### **Overview**

This document provides an overview of SQL query analysis and purpose based on the table Employee and Department from the Company 1 database. The query provides various insights about employees and departments including average salary, employee count, commission etc.

## **Prerequisites**

* **SQL client or interface to execute the queries (e.g., MySQL Workbench).**
* **Ensure the COMPANY1 database and its EMP and DEPT tables are created and populated as described.**

**Table Overview**

EMP. Table

|  |  |
| --- | --- |
| **Column** | **Description** |
| EMP NO. | Unique id (Primary key) |
| ENAME | Employee Name |
| JOB | Job Title |
| MGR | Manager’s employee number |
| HIREDATE | Date of hire |
| SAL | Salary |
| COMM | Commission |
| DEPTNO | Department Number (Foreign key to DEPT) |

DEPT. Table

|  |  |
| --- | --- |
| **Column** | **Description** |
| DEPT NO. | Unique department id (Primary Key) |
| DNAME | Department Name |
| LOC | Location of the Department |

**Queries and Its Purpose**

1. **Employees whose salary is greater than equal 1000 but not 2000.**

SELECT EMP.ENAME AS Employee\_Name,DEPT.DNAME AS ,EMP.SAL AS Salary FROM EMP JOIN DEPT ON EMP.DEPTNO = DEPT.DEPTNO WHERE EMP.SAL > 1000 AND EMP.SAL < 2000;

Purpose: Retrieve the employee's name, department and salary of employees earning between 1000 and 2000.

1. **Count of employees in department 30 with salary and commission.**

SELECT COUNT (\*) AS Count FROM EMP WHERE DEPTNO = 30 AND SAL IS NOT NULL AND COMM IS NOT NULL;

Purpose: Number of employees in department 30 who earn salary and commission.

1. **Employees whose salary is greater than equal to 1000 and working in Dallas.**

SELECT EMP.ENAME AS Employee\_Name,EMP.SAL AS Salary,LOC FROM EMP JOIN DEPT ON EMP.DEPTNO = DEPT.DEPTNO WHERE EMP.SAL >= 1000 AND DEPT.LOC = 'DALLAS';

Purpose: List the names and salary of employees who earn at least 1000 and work in the Dallas location.

1. **Find departments that do not have any current employees.**

SELECT DEPT.DNAME AS Department\_Name,DEPT.LOC AS Location FROM DEPT LEFT JOIN EMP ON DEPT.DEPTNO = EMP.DEPTNO WHERE EMP.EMPNO IS NULL.

Purpose: Identify the department that currently do not have any employees

**5. Department - wise average salary and employees count.**

SELECT DEPTNO AS Department\_Number,AVG(SAL) AS Average\_Salary,COUNT(EMPNO) AS Employee\_CounT FROM EMP GROUP BY DEPTNO;

Purpose: Displays each department’s number, average salary, and total employee count.

**Reference**

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