Day 1 SQL Practice – Employees & Departments Dataset

From Health Coach to SQL Explorer – My Learning Journey Begins

My journey from a Health Coach to a Data Analyst began with a lot of uncertainty. There were times when I truly believed coding was not for me. I tried following roadmaps, cheat sheets, and tutorials, but somehow nothing would stick. I could understand concepts, but when it came to writing queries independently, I would freeze.

Eventually, I realized what I was missing: **consistent, hands-on practice**. It was not about memorizing syntax; it was about developing intuition through repetition. The more I practiced, even when it felt boring or hard, the more everything started making sense. That is when the shift happened.

This document marks Day 1 of my practical SQL learning journey—starting with a foundational dataset to explore SELECTs, JOINs, GROUP BY, and more. One dataset at a time, one concept at a time, I am building the confidence and skill to grow in the data world.

✅ Step 1: Table Creation & Data Insertion

I created two tables: Employees and Departments, defined relationships using foreign keys, and inserted 5 sample records into each. This gave me a clean, manageable dataset to explore core SQL concepts.

✅ SELECT and WHERE

Learned how to extract specific columns and filter rows using the WHERE clause.

SELECT Name, HireDate FROM Employees WHERE HireDate > '2018-01-01';

This taught me how to retrieve meaningful slices of data from larger datasets.

✅ ORDER BY

Practiced sorting query results in descending order:

SELECT Name, Salary FROM Employees ORDER BY Salary DESC;

Helpful for identifying top performers or recent hires.

✅ GROUP BY and Aggregates

Used GROUP BY to summarize information:

SELECT DepartmentID, COUNT(*) FROM Employees GROUP BY DepartmentID;

This helped me understand how aggregation functions like COUNT() can reveal department-wise distributions.

✅ **JOIN (INNER, LEFT)**

Learned to join tables for enriched results:

SELECT E.Name, D.DepartmentName

FROM Employees E

JOIN Departments D ON E.DepartmentID = D.DepartmentID;

This was crucial in linking employee details with department names.

✅ **SELF JOIN for Manager Mapping**

Explored self-joins to find each employee's manager:

SELECT E.Name AS EmployeeName, M.Name AS ManagerName

FROM Employees E

LEFT JOIN Employees M ON E.ManagerID = M.EmployeeID;

Fascinating use-case to connect rows within the same table.

✅ **Data Types & Constraints**

Reviewed SQL data types like INT, VARCHAR, and DATE, and applied primary and foreign keys to enforce relational integrity.

💡 **Key Takeaway from Day 1:**

Mastery comes from mindful repetition, not memorization. Even basic queries hold powerful learning opportunities when practiced with intention.

🌐 **Reference Platforms:**

- Hackerrank – SQL Practice
- Mode Analytics – SQL Tutorial
- W3Schools SQL
- GeeksforGeeks SQL

This is Day 1. Tomorrow, I move one step forward – revisiting joins, subqueries, and more. Slow and steady. See you in the next post!