

*@Backend:Phase1*

# Task 4

/DBMS-MySQL



## /Feedback

### \$ Task\_3\_Feedback

## /Resources

\$ Watch this video MySQL-Tutorial to the end.

\$ from Baraa Course, watch these videos also:

- > SQL Joins Basics
- > Advanced SQL Joins
- > Joining Multiple Tables
- > SQL Subquery

\$ Other Useful resources along this phase:

- > Baraa Course
- > Eng-Ramy ITI Course
- > DR-Amr Internal DBs Course

## /TODO

### \$ *Part A: LeetCode Problems*

Create a file named *Task\_4\_Solutions.sql* and paste your SQL code for each problem there.



- > Combine Two Tables
- > Replace Employee ID With The Unique Identifier
- > Customer Who Visited but Did Not Make Any Transactions
- > Project Employees I
- > Sales Person
- > Rising Temperature
- > Average Time of Process per Machine
- > Students and Examinations
- > Managers with at Least 5 Direct Reports
- > Confirmation Rate
- > Product Sales Analysis III
- > Market Analysis I

## \$ Part B: Research Questions

Answer the following questions in the file named **research.md**.

### 1. UNION vs UNION ALL:

- We learned how to combine result sets. What is the difference between these two commands regarding **Performance** and **Duplicate Handling** (Search for it)?



## 2. Subquery vs JOIN:

- Most Subqueries can be rewritten as Joins. Why might you choose to use a Join instead of a Subquery in a real production environment?

## /Submission Guidelines

> Inside your **IEEE-ZSB-Backend-26** repository, inside the **MySQL** folder, create a new folder named **Task\_4** and put your files there:

MySQL\

Task\_4\

Task\_4\_Solutions.sql

research.md

HTML\

. . .

## /How-To-Submit

\$ After you finish all of that, push your files to the repo as explained.

\$ Submit the GitHub repository link on the task chat on **Discord**.



**/Deadline**

**\$ Tuesday, February 24 at 11:59 PM**

**Wish you the best. ❤️**

