

# SQL Database Tasks

01 Month Remote Internship



# Basic Tasks

Maintain a Github Reposatary of Tasks, Named as YoungDevInterns\_Sql\_Tasks, Every Task Should be Uploaded on Linkedin & Facebook Mentioning Company's Page

## Basic Tasks (Week 1)

### 1. Database & Table Setup

- Create Internship\_DB, tables Employees and Departments.
- Insert 5 records into each table.

### 2. Basic SELECT Queries

- Retrieve employees' names and positions.
- List departments with locations.

### 3. Filtering & Sorting

- Query employees earning > \$50,000.
- Sort employees by name, list departments in specific cities.

# Intermediate Tasks

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## Intermediate Tasks (Week 2-3)

### 1. JOIN Operations

- Use INNER JOIN to list employees and their departments.
- Use LEFT JOIN to list all employees, including those without departments.

### 2. Aggregation Functions

- Calculate average salary, total employees per department, and highest salary in each department.

### 3. Subqueries

- Find employees earning more than the department's average salary.
- List departments with more than 3 employees.

# Expert Tasks

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## Expert Tasks (Week 4)

### 1. Complex JOINS

- Join Employees, Departments, and Managers to list employees with department and manager details.

### 2. Window Functions

- Rank employees by salary within their department using ROW\_NUMBER().
- Rank employees across the company using RANK().

### 3. Data Modification & Transactions

- Update employee salaries by 10%.
- Use transactions to commit or roll back updates.