**📘 Day 41 – SQL Practice Questions**

**Dataset: Employees & Performance**

**Table 1: Employees**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| EmpID | Name | Department | HireDate | Salary | ManagerID |
| 101 | Alice | HR | 2018-03-10 | 55000 | 201 |
| 102 | Bob | IT | 2020-07-15 | 65000 | 202 |
| 103 | Charlie | Finance | 2019-11-01 | 70000 | 203 |
| 104 | Diana | IT | 2021-05-20 | 60000 | 202 |
| 105 | Ethan | Finance | 2017-01-05 | 72000 | 203 |
| 106 | Fiona | HR | 2022-02-10 | 50000 | 201 |
| 201 | George | HR | 2015-08-12 | 85000 | NULL |
| 202 | Hannah | IT | 2014-04-01 | 95000 | NULL |
| 203 | Ian | Finance | 2016-10-22 | 90000 | NULL |

**Table 2: Performance**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| EmpID | Year | Rating | ProjectsCompleted | OvertimeHours |
| 101 | 2021 | 4 | 5 | 20 |
| 101 | 2022 | 5 | 6 | 25 |
| 102 | 2021 | 3 | 3 | 15 |
| 102 | 2022 | 4 | 4 | 18 |
| 103 | 2021 | 5 | 7 | 30 |
| 103 | 2022 | 4 | 6 | 28 |
| 104 | 2022 | 3 | 2 | 10 |
| 105 | 2021 | 4 | 5 | 22 |
| 105 | 2022 | 5 | 7 | 26 |
| 106 | 2022 | 4 | 3 | 14 |

**❓ Questions**

1. List all employees along with their department and manager’s name.
2. Find employees who joined before 2020 and have salary above 60,000.
3. Retrieve employees whose performance rating was 5 in any year.
4. Show employees with average performance rating > 4 across all years.
5. Find the top 3 highest paid employees in the company.
6. For each department, find the employee with the highest salary (use window functions).
7. Calculate the yearly average rating per department.
8. Identify employees who have improved their rating from 2021 to 2022.
9. Find employees who have worked more than 20 overtime hours in any year.
10. Bonus Challenge 🎯: Write a query to rank employees based on total projects completed across all years.