# Write a query to display all departments including those who does not have any employee.

select d.department\_id from test2.department d left outer join test2.employee e on d.Department\_id = e.department\_id;

Graphical user interface, text, application, email

Description automatically generated

# Write a query to display the first name of all employees including the first name of their manager.

select m.first\_name as firstnameofemployee,e.first\_name as firstnameofmanager from

test2.employee m, test2.employee e where m.Manager\_id=e.employee\_id;

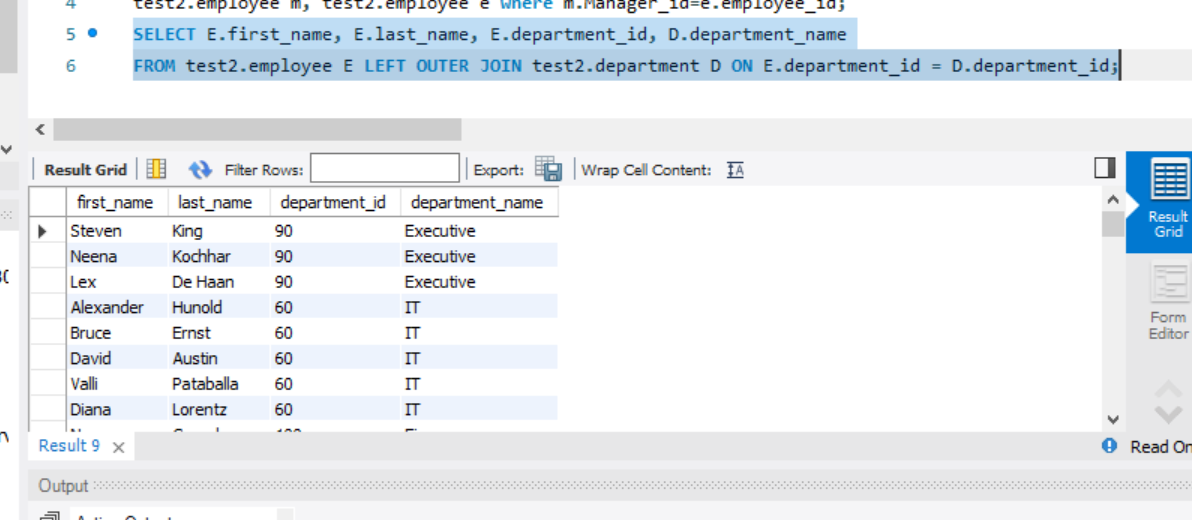
Graphical user interface, application

Description automatically generated

# Write a query in SQL to display the first name, last name, department number and name, for all employees who have or have not any department.

SELECT E.first\_name, E.last\_name, E.department\_id, D.department\_name

FROM test2.employee E LEFT OUTER JOIN test2.department D ON E.department\_id = D.department\_id;



# Write a query to display the first name of all employees and the first name of their manager including those who does not working under any manager.

select m.first\_name as firstnameofemployee,m.last\_name,e.first\_name as firstnameofmanager from

test2.employee m left outer join test2.employee e on m.Manager\_id=e.employee\_id;

Graphical user interface, application

Description automatically generated

# Write a query to display the country name, city, and number of those departments where at least 2 employees are working.

SELECT country\_name,city, COUNT(department\_id) FROM test2.country

JOIN test2.location USING (COUNTRY\_ID) JOIN test2.department USING (location\_id) where department\_id in (select e.department\_id from test2.employee e group by department\_id having count(\*)>=2) GROUP BY country\_name,city;

Graphical user interface, application

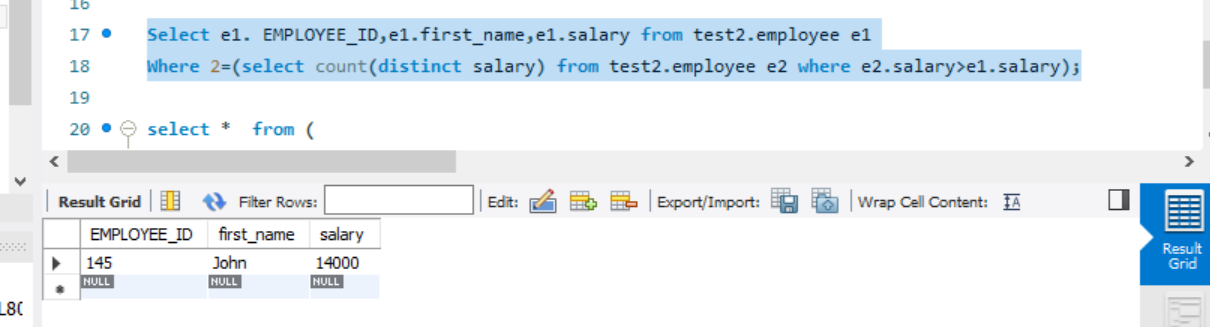
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# Write a query to determine the 3rd highest salary.(Use both Ranking Functions and Subquery)

Subquery:

Select e1. EMPLOYEE\_ID,e1.first\_name,e1.salary from test2.employee e1

Where 2=(select count(distinct salary) from test2.employee e2 where e2.salary>e1.salary)



Dense\_rank:

select \* from (select e.Employee\_ID,e.First\_Name,e.Salary, DENSE\_RANK() over(order by salary desc) as R from test2.employee e) result where result.R=3

Graphical user interface, text, application

Description automatically generated

# Write a query to determine the highest salary department wise.

select e2.Department\_id,max(salary) from test2.employee e2 group by department\_id ;

**(or)**

SELECT e2.Department\_id,e2.salary FROM test2.employee e2 WHERE Salary IN

( SELECT max(Salary) FROM test2.employee GROUP BY department\_id );

Graphical user interface, text, application, email

Description automatically generated

# Find out the Department\_ID, Department\_Name and no of Employees working under each department.

Select e.department\_id,d.DEPARTMENT\_NAME, count(employee\_id) from test2.employee e

left outer join test2.department d USING (department\_id) where department\_id in(select

department\_id from test2.employee group by Department\_id) group by department\_id

Graphical user interface, application

Description automatically generated

# Find out the employees who earn greater than the average salary for their department.

select e1.\* from test2.employee e1 inner join (select avg(salary) avg\_sal,e2.department\_id

from test2.employee e2 group by department\_id) as e3

on e1.department\_id=e3.department\_id and e1.Salary>e3.avg\_sal;

Table

Description automatically generated

## DATE FUNCTIONS:

# How many employees joined each month in 2015.

SELECT count(employee\_id),date\_format(STR\_TO\_DATE(hire\_date, "%d-%m-%Y %k:%i"),'%m') as months from test2.employee where

date\_format(STR\_TO\_DATE(hire\_date, "%d-%m-%Y %k:%i"),'%Y')=2015 group by months;

Graphical user interface, text, application, email

Description automatically generated

# How many employees who are joined in December 2016.

SELECT count(employee\_id) from test2.employee e where

date\_format(STR\_TO\_DATE(hire\_date, "%d-%m-%Y %k:%i"),'%Y')=2016 and

date\_format(STR\_TO\_DATE(hire\_date, "%d-%m-%Y %k:%i"),'%m')=12;

Graphical user interface, text, application

Description automatically generated

# List out the no.of employees for each month and year, in the ascending order based on the year, month.

SELECT count(employee\_id),date\_format(STR\_TO\_DATE(hire\_date, "%d-%m-%Y %k:%i"),'%m') as

months,date\_format(STR\_TO\_DATE(hire\_date, "%d-%m-%Y %k:%i"),'%Y') as

years from test2.employee group by months,years order by years,months asc;

Graphical user interface, text, application, email

Description automatically generated