Sql project on employees dataset

**Database-employees.**

**Tables :**

**Employees :** employee\_id,first\_name,last\_name,email,phone\_number,hire\_date,job\_id,salary,commission\_pct,manager\_id,department\_id.

**department :**

department\_id, department\_name,manager\_id,loaction\_id.

**Locations :**

loaction\_id,street\_address,postal\_code,city,state\_province,country\_id.

**job\_history :**

employee\_id,start\_date,end\_date,job\_id,department\_id.

**Jobs :**

job\_id,job\_title,min\_salary,max\_salary.

**Regions :**

region\_id,region\_name.

**countries :**

country\_id,country\_name,region\_id.

SELECT \* FROM employees;

SELECT \* FROM departments;

SELECT \* FROM locations;

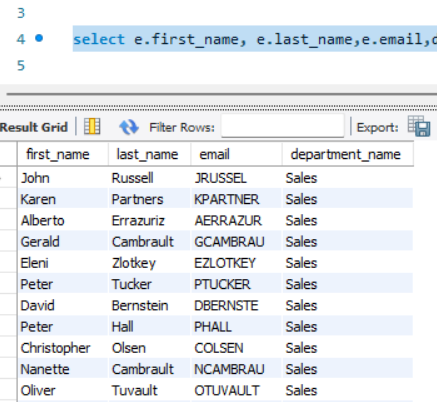
SELECT \* FROM jobs;

SELECT \* FROM regions;

SELECT \* FROM countries;

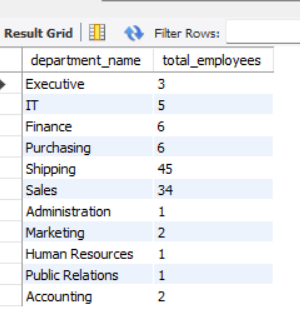
1. **Question**: Retrieve the names and email addresses of all employees who work in the 'Sales' department.

select e.first\_name, e.last\_name,e.email,d.department\_name from emp e inner join departments d on e.department\_id=d.department\_id where d.department\_name='sales';



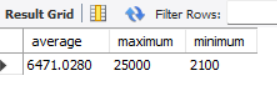
1. **Question**: Find the total number of employees in each department.

select d.department\_name ,count(e.employee\_id) as total\_employees from emp e join departments d on e.department\_id = d.department\_id group by d.department\_name;



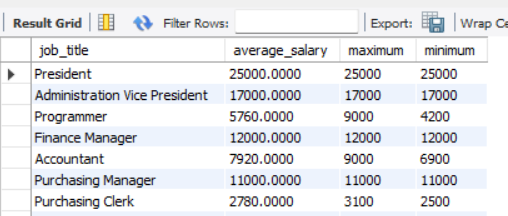
1. **Question**: Find the minimum, maximum, average salary of employees.

select avg(salary) as average,max(salary)as maximum,min(salary)as minimum from emp;



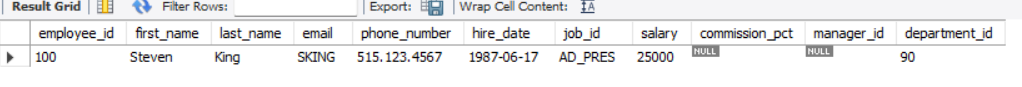
1. **Question**: Calculate the average, minimum, maximum salaries for each job title

SELECT j.job\_title, AVG(e.salary) as average\_salary, max(salary)as maximum, min(salary)as minimum FROM emp e JOIN jobs j ON e.job\_id = j.job\_id GROUP BY j.job\_title;



1. **Question**: Find the employee with the highest salary and display their details.

select \* from emp where salary in(select max(salary) from emp) order by salary desc;



1. **Question**: Identify the countries where employees are located, along with the count of employees in each country.

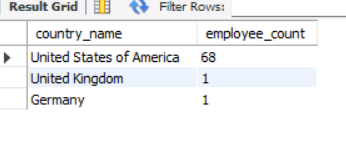
SELECT c.country\_name, COUNT(e.employee\_id) AS employee\_count

FROM emp e

JOIN departments d ON e.department\_id = d.department\_id join locations l on d.location\_id=l.location\_id

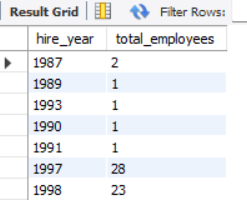
JOIN countries c ON l.country\_id = c.country\_id

GROUP BY c.country\_name;



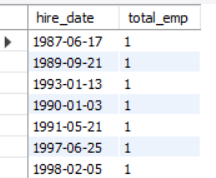
1. What is the total number of employees hired in each year?

select year(hire\_date) as hire\_year, count(employee\_id) as total\_employees from emp group by hire\_year;



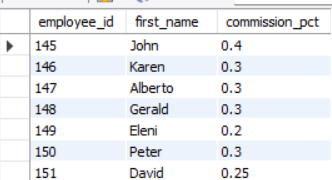
**Without using year:**

select hire\_date,count(employee\_id) as total\_emp from emp group by hire\_date;



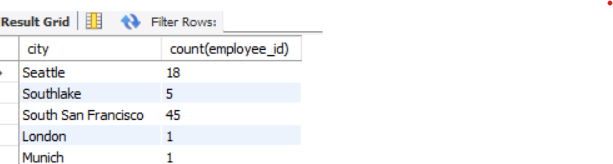
1. How many employees have a commission percentage greater than 0.1%?

select employee\_id,first\_name,commission\_pct from emp where commission\_pct > 0.1;



1. Total no.of cities and each city how many employess?

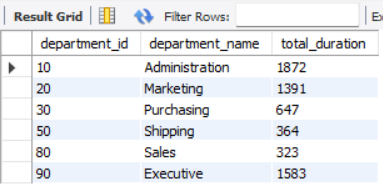
select l.city ,count(employee\_id)from emp join departments d on emp.department\_id=d.department\_id join locations l on d.location\_id=l.location\_id group by l.city;



1. What is the average duration of employment for each department?

select d.department\_id,d.department\_name,round(avg(datediff(jh.end\_date,jh.start\_date))) as total\_duration from job\_history jh join emp e on jh.employee\_id=e.employee\_id

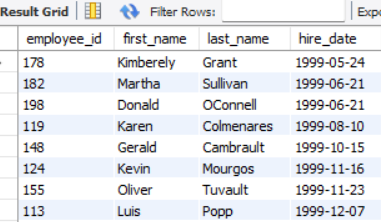
join departments d on e.department\_id=d.department\_id group by d.department\_id, d.department\_name;



1. Can you provide a list of employees who have been hired within the last six months or 1 year?

SELECT employee\_id,first\_name,last\_name,hire\_date FROM emp

WHERE hire\_date >= DATE\_SUB((SELECT MAX(hire\_date) FROM emp), INTERVAL 1 year) order by hire\_date;



1. Can you provide a breakdown of employees by region?

SELECT r.region\_name, COUNT(e.employee\_id) AS total\_employees FROM emp e

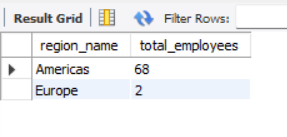
JOIN departments d ON e.department\_id = d.department\_id

JOIN locations l ON d.location\_id = l.location\_id

JOIN countries c ON l.country\_id = c.country\_id

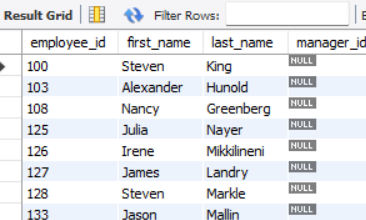
JOIN regions r ON c.region\_id = r.region\_id

GROUP BY r.region\_name;



1. Can you list the employees who do not have a manager assigned to them?

select employee\_id, first\_name,last\_name ,d.manager\_id from emp left join departments d on emp.manager\_id=d.manager\_id where d.manager\_id is null;



1. Can you identify any employees who have held multiple job titles simultaneously?

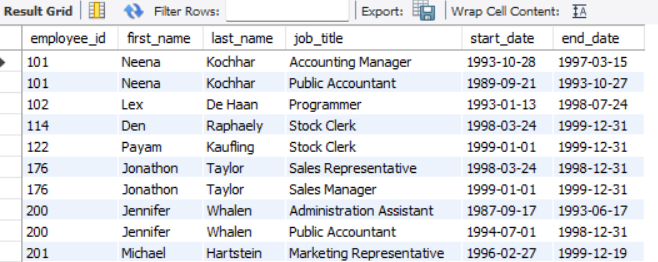
SELECT DISTINCT jh1.employee\_id, e.first\_name, e.last\_name,job\_title,jh1.start\_date,jh1.end\_date

FROM job\_history jh1

JOIN job\_history jh2 ON jh1.employee\_id = jh2.employee\_id

JOIN emp e ON jh1.employee\_id = e.employee\_id

join jobs j on jh1.job\_id=j.job\_id;



1. How many employees have been with the company for more than five years?

select count(employee\_id)as total\_employees,job\_id from job\_history where start\_date>= date\_sub((select min(start\_date) from job\_history), interval 5 year) group by job\_id;

