

1. **How to select UNIQUE records from a table using a SQL Query?**

select distinct EMPLOYEE\_ID,NAME,SALARY from employee

select EMPLOYEE\_ID,NAME,SALARY from employee group by EMPLOYEE\_ID

1. **How to delete DUPLICATE records from a table using a SQL Query?**

select \* from employee

select \*,count(\*) from employee group by emp\_id,name,salary having count(\*)>1

delete from employee where emp\_id not in (select min(emp\_id) from employee group by name,salary)

1. **How to read TOP 5 records from a table using a SQL query?**

Consider below table DEPARTMENTS as the source data.



select \* from departments order by Department\_ID asc limit 5

select \* from departments limit 5

1. **How to read LAST 5 records from a table using a SQL query?**

select \* from departments order by Department\_ID desc limit 5

## here last 5 records in ascending order

(select \* from departments order by Department\_ID desc limit 5) order by Department\_ID

1. **How to find the employee with second MAX Salary using a SQL query?**

select max(salary) as second\_max\_salary from employee where salary not in (select max(salary) from employee).

## If we need all the columns too

with

temp as(

select max(salary) as salary from employee where salary not in

(select max(salary) as salary from employee)

)

select a.\* from employee a join temp b on a.salary = b.salary

1. **How to find the employee with third MAX Salary using a SQL query without using Analytic Functions?**

Consider the same EMPLOYEES table as source discussed in previous question

SELECT name, salary FROM Employee e1

WHERE 3-1 =

(SELECT COUNT(DISTINCT salary) FROM Employee e2 WHERE e2.salary > e1.salary)

1. **Assume you have the below tables on sessions that users have, and a users table. Write a query to get the active user count of daily cohorts.**



By definition, daily cohorts are active users from a particular day. First, we can use a subquery to get the sessions of new users by day using an inner join with users. This is to filter for only active users by a particular join date for the cohort. Then we can get a distinct count to return the active user count:

with new\_users\_by\_date as(

select s.\* from sessions s join users u on s.user\_id = u.user\_id s.date = u.date)

select date,count(distinct user\_id) as active\_user\_count from new\_users\_by\_date group by date order by asc

1. **Assume you are given the below table on transactions from users for purchases. Write a query to get the list of customers where their earliest purchase was at least $50.**



we can also use the RANK() window function to get the ordering of purchase by customer, and then use that subquery to filter on customers where the first purchase (rank one) is at least 50 dollars. Note that this requires the subquery to include spend as well.

with purchase\_rank as

( select user\_id,spend,rank() over ( partition by user\_id order by transaction\_date asc)

as rank\_ from user\_transactions)

select user\_id,spend from purchase\_rank where rank =1 and spend>=50