1. What are Scalar functions and write a query?

An SQL scalar function is a user-defined function written in SQL and it returns a single value each time it is invoked. SQL scalar functions contain the source code for the user-defined function in the user-defined function definition. There are two kinds of SQL scalar functions, inlined and compiled.

Query:

SELECT GetStringLength('Hello world') AS StringLength;

1. Explain joins with example and output.

In SQL, joins are used to combine rows from two or more tables based on a related column between them. There are different types of joins like INNER JOIN, LEFT JOIN, RIGHT JOIN, and FULL OUTER JOIN.

Examples:

SELECT customers.customer\_name, orders.order\_id, orders.order\_amount

FROM customers

INNER JOIN orders

ON customers.customer\_id = orders.customer\_id;

1. Write a SQL query to Rename the column name.

ALTER TABLE my\_table RENAME COLUMN old\_column TO new\_column;

1. Write a SQL query to find duplicate records

SELECT age, salary, COUNT(\*) as count

FROM employees

GROUP BY age, salary

HAVING COUNT(\*) > 1;

1. How do we use the DISTINCT statement? What are its use?

The DISTINCT keyword is used in SQL to eliminate duplicate rows in the result set of a SELECT statement. It filters out the duplicate values from the output and returns only the unique values.

SELECT DISTINCT customer\_name

FROM customers;

1. Remove duplicate from the table

To remove duplicates from a table, you can use the **DISTINCT** keyword with the **DELETE** statement. Here's an example query:

1. Print max salary for a particular department

To print the maximum salary for a particular department, you can use the MAX() function along with the WHERE clause to filter the results based on the department. Here's an example SQL query:

SELECT MAX(salary) AS max\_salary

FROM employees

WHERE department = 'Sales';

1. Use different operators in SQL

\*Arithmetic Operators

\* Comparison Operators

\* Logical Operators

\* BETWEEN Operator

1. What is Query to display first 5 Records from Employee table?

SELECT \*

FROM Employee

LIMIT 5;

1. What is Query to display last 5 Records from Employee table?

SELECT \*

FROM Employee

ORDER BY EmployeeID DESC

LIMIT 5;

1. How to fetch 3rd highest salary using Rank Function

SELECT salary

FROM (SELECT salary, RANK() OVER (ORDER BY salary DESC) as salary\_rank

FROM employee

) AS salary\_table

WHERE salary\_rank = 3;

1. How Can i create table with same structure with data   
   of Employee table?

To create a new table with the same structure and data as the existing "Employee" table, you can use the following SQL query:

CREATE TABLE new\_employee AS

SELECT \*

FROM Employee

1. Find Query to get information of Employee where   
   Employee is not assigned to the department

To get the information of employees who are not assigned to any department, we can use a left join and check for null values in the department column.

SELECT \*

FROM Employee e

LEFT JOIN Department d ON e.DepartmentID = d.ID

WHERE d.ID IS NULL;