1. **What are scalar function and write a query**

**Answer:**

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, in lined and compiled.

Some of the Scalar function

1. **UCASE()**
2. **LCASE()**
3. **MID()**
4. **LENGTH()**
5. **ROUND()**

Example:

Select UCASE(column\_name) FROM table\_name

Select UCASE(welcome sql);

Answer:

WELCOME SQL

1. **Explain joins with example and output**

**Answer:**

A join clause is used to combine rows from two or more tables, based on a related column between them.

There are four types of joins:

1) Inner join

2) Left outer join

3) Right outer join

4) Full outer join

Inner join:

Returns records that have matching values in both tables.

Left outer join:

Returns all records from the left table, and the matched records from the right table.

Right outer join:

Returns all records from the right table, and the matched records from the left table.

Full outer join:

Returns all records when there is a match in either left or right table.

Example:

Select column\_name from table\_name\_1 inner join table\_name\_2 on table1.column\_name = table2.column\_name

1. **Write a sql query to rename the column name**

**Answer:**

ALTER TABLE table\_name RENAME COLUMN oldcolumn\_name to newcolumn\_name;

1. **Write a sql query to find duplicate records**

**Answer:**

Create table student(id int, name varchar(20));

Insert into student values(1,’naveen’);

Insert into student values(2,’bharat’);

Insert into student values(2,’arun’);

Insert into student values(4,’shankar’);

Insert into student values(5,’gowtham’);

Insert into student values(3,’sam’);

In this student contain Duplicate values

SELECT id ,name, COUNT(ID) AS Duplicate values

FROM student

GROUP BY ID

HAVING COUNT(Id)>1;

**5)How do we use the Distinct statement? What are its use**

**Answer:**

Distinct  statement is used to return only distinct (different) values.

Example:

Create table student(id int, name varchar(20),city varchar(20) );

Insert into student values(1,’naveen’,’chennai’);

Insert into student values(2,’bharat’,’mumbai’);

Insert into student values(2,’arun’,’pune’);

Insert into student values(4,’shankar’,’delhi’);

Insert into student values(5,’gowtham’,’chennai’);

Insert into student values(3,’sam’,’mumbai’);

Select Distinct city from student

It gives the result of 4 columns

1. **Remove duplicates from the table**

**Answer:**

Create table student(id int, name varchar(20),city varchar(20) );

Insert into student values(1,’naveen’,’chennai’);

Insert into student values(2,’bharat’,’mumbai’);

Insert into student values(2,’arun’,’pune’);

Insert into student values(4,’shankar’,’delhi’);

Insert into student values(5,’gowtham’,’chennai’);

Insert into student values(3,’sam’,’mumbai’);

DELETE FROM Student WHERE ID NOT IN (

SELECT MAX(ID) FROM student GROUP BY name, city)

1. **Print max salary for a particular department**

**Answer:**

Create table employee\_details(emp\_id int, emp\_name varchar(20),dept varchar(20), salary int );

Insert into employee\_details values(1,’sam’,’Developer’,20000);

Insert into employee\_details values(2,’ram’,’Data analyst’,25000);

Insert into employee\_details values(3,’kiran’,’Tester’,28000);

Insert into employee\_details values(4,’hari’,’QA’,40000);

SELECT dept, MAX(SALARY) FROM employee\_details WHERE dept=’Developer’;

1. **Use different operators in Sql**

**Answer:**

Create table employee\_details(emp\_id int, emp\_name varchar(20),dept varchar(20), salary int );

Insert into employee\_details values(1,’sam’,’Developer’,20000);

Insert into employee\_details values(2,’ram’,’Data analyst’,25000);

Insert into employee\_details values(3,’kiran’,’Tester’,28000);

Insert into employee\_details values(4,’hari’,’QA’,40000);

Insert into employee\_details values(5,’naveen’,’Tester’,32000);

Insert into employee\_details values(6,’arun’,’Developer’,24000);

Insert into employee\_details values(7,’shankar’,’Data analyst’,35000);

Select \* from employee\_details where salary> 30000;

Select \* from employee\_details where salary< 25000;

Select \* from employee\_details where dept = ‘tester’;

Select \* from employee\_details where dept = ‘tester’ and dept = ‘QA’;

Select \* from employee\_details where dept = ‘tester’ or dept = ‘QA’;

1. **What is query to display first 5 records from employee table**

**Answer:**

Create table employee\_details(emp\_id int, emp\_name varchar(20),dept varchar(20), salary int );

Insert into employee\_details values(1,’sam’,’Developer’,20000);

Insert into employee\_details values(2,’ram’,’Data analyst’,25000);

Insert into employee\_details values(3,’kiran’,’Tester’,28000);

Insert into employee\_details values(4,’hari’,’QA’,40000);

Insert into employee\_details values(5,’naveen’,’Tester’,32000);

Insert into employee\_details values(6,’arun’,’Developer’,24000);

Insert into employee\_details values(7,’shankar’,’Data analyst’,35000);

Select \* from employee\_details order by emp\_id ASC

1. **What is query to display last 5 records from employee table**

**Answer:**

Create table employee\_details(emp\_id int, emp\_name varchar(20),dept varchar(20), salary int );

Insert into employee\_details values(1,’sam’,’Developer’,20000);

Insert into employee\_details values(2,’ram’,’Data analyst’,25000);

Insert into employee\_details values(3,’kiran’,’Tester’,28000);

Insert into employee\_details values(4,’hari’,’QA’,40000);

Insert into employee\_details values(5,’naveen’,’Tester’,32000);

Insert into employee\_details values(6,’arun’,’Developer’,24000);

Insert into employee\_details values(7,’shankar’,’Data analyst’,35000);

Select \* from employee\_details order by emp\_id DESC

1. **How to fetch 3rd highest salary using rank function**

**Answer**

Create table employee\_details(emp\_id int, emp\_name varchar(20),dept varchar(20), salary int );

Insert into employee\_details values(1,’sam’,’Developer’,20000);

Insert into employee\_details values(2,’ram’,’Data analyst’,25000);

Insert into employee\_details values(3,’kiran’,’Tester’,28000);

Insert into employee\_details values(4,’hari’,’QA’,40000);

Insert into employee\_details values(5,’naveen’,’Tester’,32000);

Insert into employee\_details values(6,’arun’,’Developer’,24000);

Insert into employee\_details values(7,’shankar’,’Data analyst’,35000);

Select rk.emp\_id,rk.emp\_name,rk.dept,rk.salary from (select emp\_id,emp\_name, rank() over (order by salary) as rank from employee\_details) as rk where rank = 3

1. **How can i create table with same structure of employee table**

**Answer:**

Create table employee\_new like select \* from employee\_details

1. **Find query to get information of employee where department is not assigned to the department**

**Answer:**

SELECT E.emp\_id,E. emp\_name,E.Salary,E.dept

FROM Employee\_deatils

WHERE

NOT EXISTS (SELECT \* FROM employee\_details E WHERE E.emp\_id=E.emp\_id)