SQL QUESTIONS

- **What is SQL?**
- **How to handle Null values?**
- **Difference between Count (*), Count (1) & Count (Column name) ?**
- **How to fetch 50% records from table?**
- **Difference between Delete , Truncate and Drop commands?**
- **List the employees working in same city.**
- **Calculate the average number of days required to deliver a product.**

➢ How to handle Null values?

```
USE SQL_QUESTIONS;

CREATE TABLE EMPLOYEE
(
EMP_ID INT,
EMP_NAME VARCHAR (40),
EMP_DEPT VARCHAR (40),
EMP_AGE INT,
EMP_SALARY INT);

INSERT INTO EMPLOYEE VALUES (1,'A', 'SALES', 40,40000),
(2,'B', 'ADMIN', null ,50000),
(3, 'C','ANALYST',36,70000),
(4,'D','HR',56, null);

SELECT * FROM EMPLOYEE;

SELECT AVG(EMP_SALARY) FROM EMPLOYEE;
--------------------------------------------------------------------------------
/*-- COALESCE FUNCTION --*/

SELECT *, COALESCE (EMP_SALARY, 0) FROM EMPLOYEE;
UPDATE EMPLOYEE
SET EMP_SALARY= COALESCE(EMP_SALARY,0);
SELECT * FROM EMPLOYEE;
--------------------------------------------------------------------------------

/*--IFNULL FUNCTION --*/
SELECT *, IFNULL (EMP_AGE, 18) FROM EMPLOYEE;
UPDATE EMPLOYEE
SET EMP_AGE= IFNULL (EMP_AGE, 18);

SELECT * FROM EMPLOYEE;
```

➢ Difference between Count (*), Count (1) & Count (Column name) ?

```
CREATE TABLE STUDENT (
STUDENT_ID INT,
STUDENT_NAME VARCHAR (40));

INSERT INTO STUDENT VALUES
(1,'P'),
(2,'Q'),
(3,'R'),
(NULL, 'S'),
(8,'T'),
(9, NULL);

SELECT * FROM STUDENT;

SELECT COUNT (*) FROM STUDENT;
SELECT COUNT (1) FROM STUDENT;
SELECT COUNT (-1) FROM STUDENT;
SELECT COUNT('SQL') FROM STUDENT;

SELECT COUNT(STUDENT_ID) FROM STUDENT;

SELECT COUNT(STUDENT_NAME) FROM STUDENT;
```

➢ How to fetch 50% records from table?

```
CREATE TABLE EMPLOYEE (
EMP_ID INT,
EMP_NAME VARCHAR (40),
EMP_DEPT VARCHAR (40),
EMP_CITY VARCHAR (40),
EMP_SALARY INT);
-----------------------------------------------------------------
INSERT INTO EMPLOYEE VALUES (101,'A', 'SALES','MUMBAI',40000),
(102,'B', 'ADMIN','DELHI' ,50000),
(103, 'C','ANALYST','PUNE',70000),
(104,'D','HR','BANGALORE' ,60000),
(105, 'E','R&D','MUMBAI',60000),
(106,'F','SALES','MP' ,30000),
(107, 'G','R&D','MUMBAI',60000),
(108,'H','ADMIN','MP' ,40000);

SELECT * FROM EMPLOYEE;
-----------------------------------------------------------------
SELECT * FROM (
SELECT *, ROW_NUMBER () OVER () AS RN FROM EMPLOYEE) AS TEST
WHERE RN <= (SELECT COUNT (*)/2 FROM EMPLOYEE);
```

➢ Difference between Delete , Truncate and Drop commands?

```
CREATE TABLE EMPLOYEE
(
EMP_ID INT,
EMP_NAME VARCHAR (40),
EMP_DEPT VARCHAR (40),
EMP_SALARY INT);

INSERT INTO EMPLOYEE VALUES (1,'A', 'SALES', 40000),
(2,'B', 'ADMIN' ,50000),
(3, 'C','ANALYST',70000),
(4,'D','HR', 60000);
SELECT * FROM EMPLOYEE;
COMMIT;
```

DELETE COMMAND

```
DELETE FROM EMPLOYEE WHERE EMP_ID IN(1,3);

SELECT * FROM EMPLOYEE;
ROLLBACK;
```

TRUNCATE COMMAND

```
TRUNCATE TABLE EMPLOYEE;
SELECT * FROM EMPLOYEE;
ROLLBACK;
```

DROP COMMAND

```
INSERT INTO EMPLOYEE VALUES (1,'A', 'SALES', 40000),
(2,'B', 'ADMIN' ,50000),
(3, 'C','ANALYST',70000),
(4,'D','HR', 60000);
COMMIT;
SELECT * FROM EMPLOYEE;
DROP TABLE EMPLOYEE;
```

- **List the employees working in same city.**

```
CREATE TABLE EMPLOYEE (
EMP_ID INT,
EMP_NAME VARCHAR (40),
EMP_DEPT VARCHAR (40),
EMP_CITY VARCHAR (40),
EMP_SALARY INT);

INSERT INTO EMPLOYEE VALUES (1,'A', 'SALES','MUMBAI',40000),
(2,'B', 'ADMIN','DELHI' ,50000),
(3, 'C','ANALYST','PUNE',70000),
(4,'D','HR','BANGALORE' ,60000),
(5, 'E','R&D','MUMBAI',60000),
(6,'F','SALES','MP' ,30000);

SELECT * FROM EMPLOYEE;

============list of employee working in same city =================

 SELECT E1.EMP_ID, E1.EMP_NAME, E1.EMP_CITY FROM EMPLOYEE AS E1, EMPLOYEE AS E2
 WHERE E1.EMP_ID != E2.EMP_ID AND E1.EMP_CITY= E2.EMP_CITY;
```

➢ Calculate the average number of days required to deliver a product.

```
CREATE TABLE PRODUCT_ORDER
(
ORDER_ID INT,
PRODUCT_CATEGORY VARCHAR (40),
PRODUCT_NAME VARCHAR (40),
ORDERED_DATE DATE,
SHIPPED_DATE DATE,
QUANTITY INT
);

INSERT INTO PRODUCT_ORDER VALUES (1, 'FURNITURE','CHAIR','2024-12-01','2024-12-04', 6),
(2,'ELECTRONICS','FAN','2024-12-02','2024-12-08',8),
(4,'FASHION','T-SHIRT','2024-12-02','2024-12-10',3),
(5,'GROCERIES','FRUITS','2024-12-04','2024-12-05',4),
(6,'MOBILE','SAMSUNG','2024-12-05','2024-12-15',1);

SELECT * FROM PRODUCT_ORDER;

/*----DATEDIFF FUNCTON--------*/

SELECT AVG(DELIVERY_DAYS) FROM (
SELECT *, DATEDIFF (SHIPPED_DATE, ORDERED_DATE) AS DELIVERY_DAYS FROM PRODUCT_ORDER)
AS TEST;
```