MSD Sanjeevani Public School, Mohan Garden
Subject- Computer Science (with Python)
Class-12th (Non-Med)
Assignment-7 (from ch-13 More on MYSQL…)

Searching for Null values or not null values in tables:

- Null is used to process the blank entries or no values e.g.
- Select * from emp where name = null; #wrong
- Select * from emp where name is null; #right
- Select * from emp where name!=null; #wrong
- Select * from emp where name is not null;

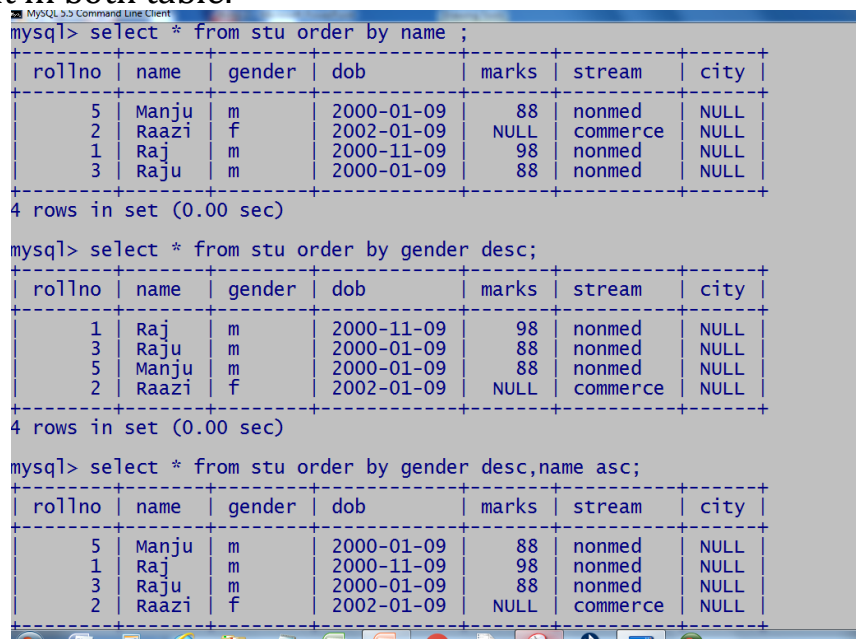**SQL Joins means accessing data from more than one table.**

There are 3 types of joins :

- – Cross join or Cartesian join
- – Equi join
- – Natural join

1. <u>Cross join or Cartesian</u> –when An SQL query applied without any join condition, returns all records from both table after joining records.
2. <u>Equi-join-</u> This is SQL query with that join or combines 2 or more tables baseed on condition with equality operator (=) and returns only those records present in both tables as per the given equality test e.g.   Select * from emp,dep where emp.depcode=dep.depcode;
3. Natural Join is a type of equi join where the join condition compares all the same columns in both tables (shows all columns after join and records present in both table.

<u>Order by clause in SELECT statement</u>

By default using select records are not displayed in any order [ascending/descending].

- Order by along with select helps to order record according to specified column as shown below.

```
mysql> select * from stu order by name ;
+--------+-------+--------+------------+-------+----------+------+
| rollno | name  | gender | dob        | marks | stream   | city |
+--------+-------+--------+------------+-------+----------+------+
|      5 | Manju | m      | 2000-01-09 |    88 | nonmed   | NULL |
|      2 | Raazi | f      | 2002-01-09 |  NULL | commerce | NULL |
|      1 | Raj   | m      | 2000-11-09 |    98 | nonmed   | NULL |
|      3 | Raju  | m      | 2000-01-09 |    88 | nonmed   | NULL |
+--------+-------+--------+------------+-------+----------+------+
4 rows in set (0.00 sec)

mysql> select * from stu order by gender desc;
+--------+-------+--------+------------+-------+----------+------+
| rollno | name  | gender | dob        | marks | stream   | city |
+--------+-------+--------+------------+-------+----------+------+
|      1 | Raj   | m      | 2000-11-09 |    98 | nonmed   | NULL |
|      3 | Raju  | m      | 2000-01-09 |    88 | nonmed   | NULL |
|      5 | Manju | m      | 2000-01-09 |    88 | nonmed   | NULL |
|      2 | Raazi | f      | 2002-01-09 |  NULL | commerce | NULL |
+--------+-------+--------+------------+-------+----------+------+
4 rows in set (0.00 sec)

mysql> select * from stu order by gender desc,name asc;
+--------+-------+--------+------------+-------+----------+------+
| rollno | name  | gender | dob        | marks | stream   | city |
+--------+-------+--------+------------+-------+----------+------+
|      5 | Manju | m      | 2000-01-09 |    88 | nonmed   | NULL |
|      1 | Raj   | m      | 2000-11-09 |    98 | nonmed   | NULL |
|      3 | Raju  | m      | 2000-01-09 |    88 | nonmed   | NULL |
|      2 | Raazi | f      | 2002-01-09 |  NULL | commerce | NULL |
+--------+-------+--------+------------+-------+----------+------+
```
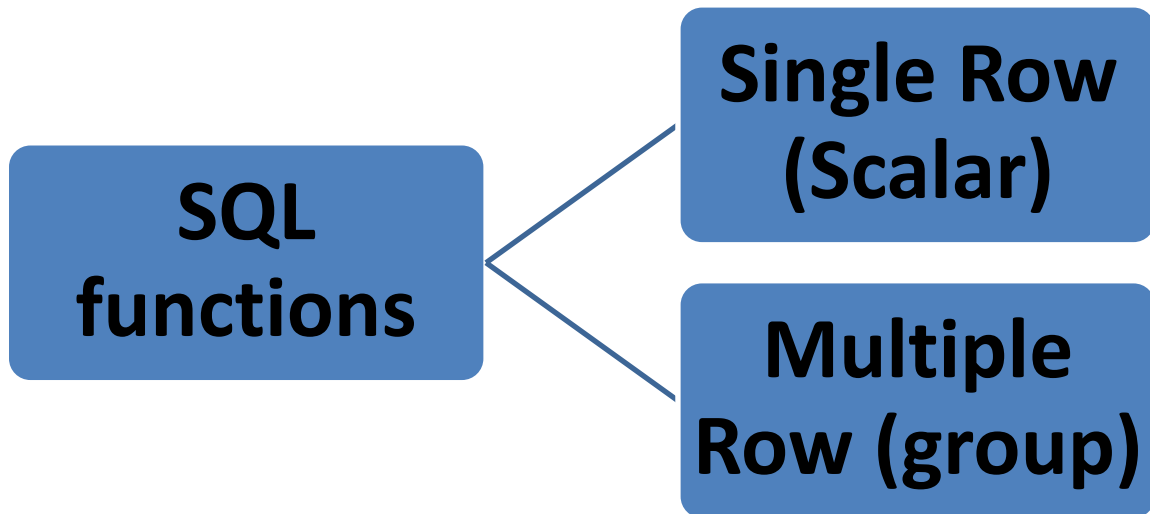
Types of SQL functions

SQL functions	**Single Row (Scalar)**
	Multiple Row (group)

SQL funtions

Scalar or single row functions works with data of single row at a time and return result for every row in relation e.g. left(), round(), year(), month() etc.

Group or aggregate functions works with data of multiple rows at a time and return aggregated result e.g. min(), max(), avg(), sum(), count().

Grouping result- using group by

Group by - clause is used to combine all identical/ same values in a specific field/column. Grouping returns result into one summary per group. And may return multiple single value according to number of groups in the column e.g in gender column it will return 2 group result.