**FUNCTIONS**

* Functions are block of code or list of instructions that are written to perform a particular task.
* There are 3 major components of a function

1. Function name
2. Number of arguments/inputs
3. Return type

Diagram (ref note)

1. **Single Row Function**

* Single row functions takes one input then it process, executes and generates an output after it goes to the next record.
* If we pass n – number of inputs to a single-row-function it returns n – number of outputs.

1. **Multi Row Function**

* Multi row functions are known as **group functions.**
* Multi-row-functions aggregate all the inputs at once and then executes on it hence generating a single output.
* If we pass n – number of inputs to a multi-row-function it returns exactly one output.

**List of Multi Row Functions**

1. MAX( )
2. MIN( )
3. SUM( )
4. AVG( )
5. COUNT( )

**NOTE**

1. Multi-row functions can accept only one argument i.e. a column name or an expression.
2. Multi-row functions ignore the NULL value.
3. We cannot use Multi-row functions in WHERE clause.
4. Along with a Multi-row functions we cannot write any other column name.
5. We can use any number of Multi-row functions together in the SELECT clause.
6. COUNT( ) is the only Multi-row function to which we can pass asterisk(\*) as an argument.

**QUERIES**

1. WAQTD number of employees getting salary less than 2000 in deptno 10.
2. WAQTD total salary needed to pay employees working as clerk.
3. WAQTD average of salary needed to pay all employees.
4. WAQTD number of employees having ‘A’ as their first character.
5. WAQTD number of employees working as clerk or manager.
6. WAQTD number of employees reporting to 7839.
7. WAQTD number of employees getting commission in deptno 30.
8. WAQTD avg Sal, total sal, number of employees and maximum sal given to employees working as president.
9. WAQTD number of employees and total salary needed to pay the employees who have 2 consecutive L’s in their name.