

## AGGREGATE FUNCTIONS

These are the functions which act on multiple rows to return a single value. These work on the group of similar kind of data.

- SUM(COLUMN\_NAME);
- COUNT(COLUMN\_NAME);
- MAX(COLUMN\_NAME);
- MIN(COLUMN\_NAME);
- AVG(COLUMN\_NAME);

### **Sum: Syntax:**

```
SELECT SUM(SAL) FROM SCOTT.EMP;
```

### **Count(): Syntax:**

It returns the number of rows records returned by the select query

```
SELECT COUNT(EMPNO) AS "NUMBER OF EMPLOYEES"
```

```
FROM SCOTT.EMP; SELECT COUNT(COMM) FROM
```

```
SCOTT.EMP;
```

```
SELECT COUNT(*) FROM SCOTT.EMP; (COUNT ALL VERTICAL VALUES INCLUDING NULL)
```

### **Max(): Syntax:**

It returns the maximum value.

```
SELECT MAX(SAL) FROM SCOTT.EMP;
```

### **Min(): Syntax:**

It returns the minimum value

```
SELECT MIN(SAL) FROM SCOTT.EMP;
```

### **Avg(): Syntax:**

It returns the average value from the columns

```
SELECT AVG(SAL) FROM SCOTT.EMP;
```

## **Group By:**

It groups the data or field.

**Note:** In group by function we have to observe (notice) that as below

- The number of columns used in select statement.
- The same number of columns are used in group by clause.

### **Syntax:**

```
SELECT DEPTNO, SUM(SAL) FROM SCOTT.EMP GROUP BY DEPTNO;
```

## **Having:**

- Having is also filter for all aggregate values.
- Check the condition from the query.

### **Syntax:**

```
SELECT DEPTNO, SUM(SAL) FROM SCOTT.EMP GROUP BY  
DEPTNO HAVING SUM(SAL)>9000;
```

```
SELECT DEPTNO, SUM(SAL) FROM SCOTT.EMP WHERE  
DEPTNO!=10 GROUP BY DEPTNO HAVING SUM(SAL)>9000;
```

## **Order By:**

- It orders the results in set.

### **Syntax:**

```
SELECT DEPTNO, SUM(SAL) FROM SCOTT.EMP WHERE  
DEPTNO!=10 GROUP BY DEPTNO HAVING SUM(SAL)>9000  
ORDER BY SUM(SAL) ASC;
```