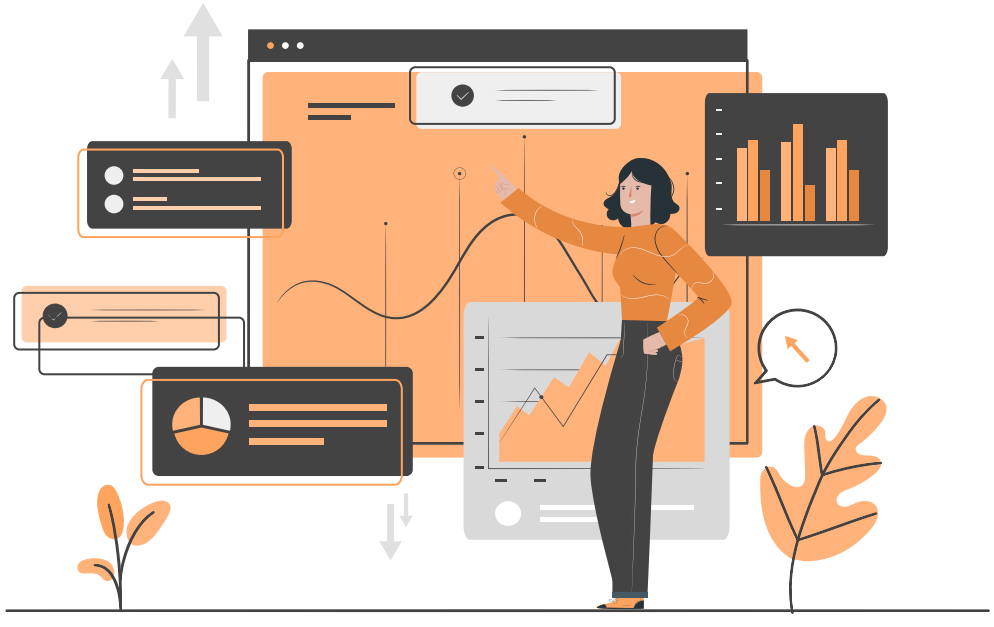

Master In SQL

By Fireblaze AI School

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Aggregated Data In the Group Functions

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Group Functions

Group functions operate on sets of rows to give one result per group.

- Unlike single-row functions, group functions operate on sets of rows to give one result per group.
- These sets may comprise the entire table or the table split into groups.

Types of Group Function

- AVG
- COUNT
- MAX
- MIN
- STDDEV
- SUM
- VARIANCE

Types of Group Functions

Function	Description
AVG([DISTINCT|ALL]n)	Average value of n, ignoring null values
COUNT({*|[DISTINCT|ALL]expr })	Number of rows, where expr evaluates to something other than null (count all selected rows using *, including duplicates and rows with nulls)
MAX([DISTINCT|ALL]expr)	Maximum value of expr, ignoring null values
MIN([DISTINCT|ALL]expr)	Minimum value of expr, ignoring null values
STDDEV([DISTINCT|ALL]n)	Standard deviation of n, ignoring null values
SUM([DISTINCT|ALL]n)	Sum values of n, ignoring null values
VARIANCE([DISTINCT|ALL]n)	Variance of n, ignoring null values

Group Functions

Syntax :- SELECT group_function(column), ...

FROM table

[WHERE condition] [ORDER BY column];

Group by Clause

You can divide rows in a table into smaller groups by using the GROUP BY clause.

Syntax:-

```
SELECT column, group_function(column)

FROM table

 [WHERE condition]

[GROUP BY group_by_expression] [ORDER BY column];
```

Restricting Group with the HAVING Clause

When you use the HAVING clause, the Oracle server restricts groups as follows:

- Rows are grouped.
- The group function is applied.
- Groups matching the HAVING clause are displayed.

Syntax:-
```
SELECT column, group_function
FROM table
[WHERE condition]
[GROUP BY group_by_expression]
[HAVING group_cond];
```

Nesting group functions

Group functions can be nested to a depth of two functions.

Note that GROUP BY clause is mandatory when nesting group functions.

Syntax:-

```
SELECT Group_Func(Group_Func(Column_name))
FROM Table_Name
GROUP BY Column_name;
```