**NSDC Registration**

**GROUP BY:** It is used to group rows that have the same values in specified columns and perform aggregate functions like **SUM(), AVERAGE(), COUNT(),** etc on each group.

SELECT column\_name(s)

FROM table\_name

WHERE condition

**GROUP BY** column\_name(s);

Example 1:

Table → orders

| order\_id | customer\_name | amount |
| --- | --- | --- |
| 1 | Alice | 200 |
| 2 | Bob | 150 |
| 3 | Alice | 300 |
| 4 | Charlie | 100 |
| 5 | Bob | 50 |

Aggregation functions are functions that are used to aggregate values.

Ex: SUM, to find the total number of sales.

COUNT, to count the number of orders placed.

AVG, to find the average sales.

MAX, to find the max value of sales.

MIN, to find the min value of sales.

SELECT customer\_name,

COUNT(\*),

FROM orders

GROUP BY customer\_name;

Output:

| customer\_name | count |
| --- | --- |
| Alice | 2 |
| Bob | 2 |
| Charlie | 1 |

Example 2:

Table → sales

| sale\_id | city | sale\_amount |
| --- | --- | --- |
| 1 | Mumbai | 500 |
| 2 | Delhi | 400 |
| 3 | Mumbai | 300 |
| 4 | Bangalore | 250 |
| 5 | Delhi | 100 |

Q. Find the total sales per city.

SELECT city,

SUM(sale\_amount)

FROM sales

GROUP BY city;

Output:

| city | sum |
| --- | --- |
| Mumbai | 800 |
| Delhi | 500 |
| Bangalore | 250 |

Example 3:

Table → marks

| student | subject | marks |
| --- | --- | --- |
| A | Math | 80 |
| B | Math | 70 |
| C | Science | 90 |
| D | Science | 60 |
| E | Math | 75 |

Q. Find the average marks per subject.

SELECT subject,

AVG(marks),

FROM marks

GROUP BY subject;

Output:

| subject | average |
| --- | --- |
| Math | 75.00 |
| Science | 75.00 |