1 SELECT

Select specific columns or all data:
show databases ;
use ecommerce;
SELECT * FROM ecommerce_data

LIMIT 8;

Output:



2 WHERE with LIMIT

show databases;

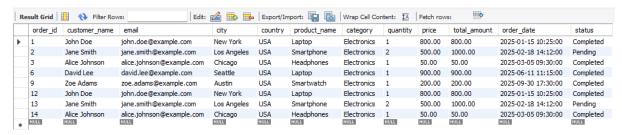
use ecommerce;

SELECT * FROM ecommerce_data

WHERE category = 'Electronics'

LIMIT 8;

Output:



3 ORDER BY with LIMIT

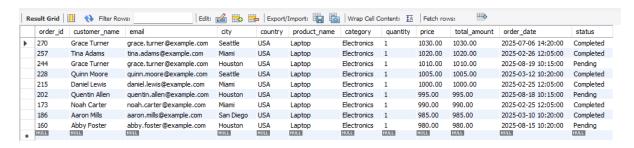
show databases ;

use ecommerce;

SELECT * FROM ecommerce_data

ORDER BY price DESC

LIMIT 9;



GROUP BY

show databases ;

use ecommerce;

DESCRIBE ecommerce_data;

SHOW COLUMNS FROM ecommerce_data;

SELECT column_name, COUNT(*) AS total_count

FROM ecommerce_data

GROUP BY column_name

LIMIT 8;

SELECT column_name, SUM(numeric_column) AS total_sum

FROM ecommerce_data

GROUP BY column_name

LIMIT 8;

Output:-



5 WHERE + ORDER BY + LIMIT

show databases ;

use ecommerce;

SELECT * FROM ecommerce_data

WHERE quantity > 5

ORDER BY price ASC;



JOIN:

Self-join: Customers with multiple orders:

show databases ;

use ecommerce;

SELECT a.customer_name, a.order_id AS order1, b.order_id AS order2

FROM ecommerce_data a

INNER JOIN ecommerce_data b

ON a.customer_name = b.customer_name

WHERE a.order_id <> b.order_id

LIMIT 8;

Output:-



Left Join

show databases ;

use ecommerce;

SELECT a.customer_name, a.order_id AS order1, b.order_id AS order2

FROM ecommerce_data a

LEFT JOIN ecommerce_data b

ON a.customer_name = b.customer_name AND a.order_id <> b.order_id

LIMIT 8;



Right Join:-

show databases ;

use ecommerce;

SELECT a.customer_name, a.order_id AS order1, b.order_id AS order2

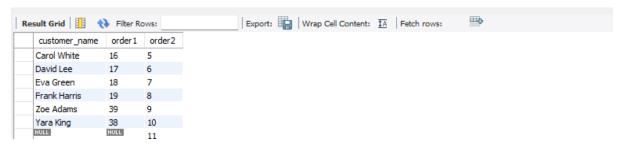
FROM ecommerce_data a

RIGHT JOIN ecommerce_data b

ON a.customer_name = b.customer_name AND a.order_id <> b.order_id

LIMIT 20;

Output:



Inner Join

show databases ;

use ecommerce;

SELECT a.customer_name, a.order_id AS order1, b.order_id AS order2, a.product_name

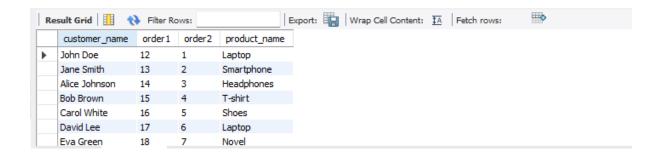
FROM ecommerce_data a

INNER JOIN ecommerce_data b

ON a.customer_name = b.customer_name AND a.product_name = b.product_name

WHERE a.order_id <> b.order_id

LIMIT 8;



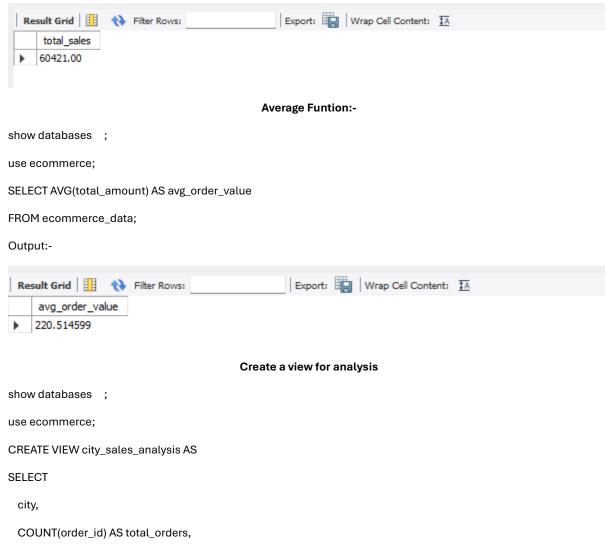
Subquery with IN: Customers with multiple orders

```
show databases ;
use ecommerce;
SELECT order_id, customer_name, product_name
FROM ecommerce_data
WHERE customer_name IN (
 SELECT customer_name
 FROM ecommerce_data
 GROUP BY customer_name
 HAVING COUNT(*) > 1
)
LIMIT 8;
Output:-
 | Edit: 🔏 🖶 | Export/Import: 📳 🌇 | Wrap Cell Content: 🏗 | Fetch rows:
    order_id customer_name product_name
           John Doe
                       Laptop
                      Smartphone
           Jane Smith
           Alice Johnson
                       Headphones
    4
           Bob Brown
                       T-shirt
    5
           Carol White
                       Shoes
           David Lee
    6
                      Laptop
           Eva Green
                       Novel
```

d.Use aggregate functions (SUM, AVG)

show databases ; use ecommerce; SELECT SUM(total_amount) AS total_sales FROM ecommerce_data; Output:-

SUM function



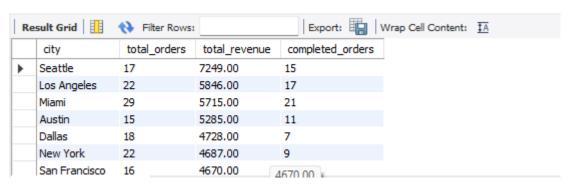
SUM(total_amount) AS total_revenue,

SUM(CASE WHEN status = 'Completed' THEN 1 ELSE 0 END) AS completed_orders

FROM ecommerce_data

GROUP BY city;

SELECT * FROM city_sales_analysis ORDER BY total_revenue DESC;



Optimize queries with indexes

show databases ;

use ecommerce;

SELECT * FROM ecommerce_data

WHERE city = 'New York' AND status = 'Completed';

Result Grid												
	order_id	customer_name	email	city	country	product_name	category	quantity	price	total_amount	order_date	status
•	1	John Doe	john.doe@example.com	New York	USA	Laptop	Electronics	1	800.00	800.00	2025-01-15 10:25:00	Completed
	12	John Doe	john.doe@example.com	New York	USA	Laptop	Electronics	1	800.00	800.00	2025-01-15 10:25:00	Completed
	65	Zara Khan	zara.khan@example.com	New York	USA	Novel	Books	1	18.00	18.00	2025-06-01 10:05:00	Completed
	80	Owen Bell	owen.bell@example.com	New York	USA	Yoga Mat	Sports	2	22.00	44.00	2025-01-16 11:25:00	Completed
	107	Zara Khan	zara.khan@example.com	New York	USA	Novel	Books	1	18.00	18.00	2025-06-01 10:05:00	Completed
	122	Owen Bell	owen.bell@example.com	New York	USA	Yoga Mat	Sports	2	22.00	44.00	2025-01-16 11:25:00	Completed
	147	Nathan Diaz	nathan.diaz@example.com	New York	USA	T-shirt	Clothing	3	23.00	69.00	2025-04-05 12:25:00	Completed