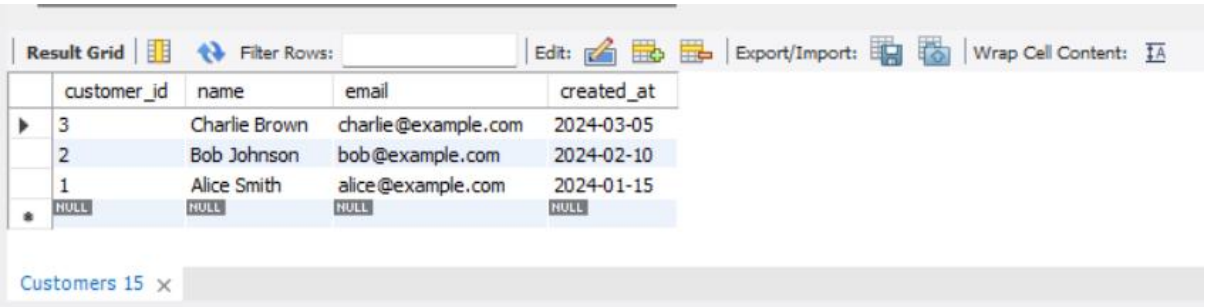
QUERIES OUTPUT

A. USE SELECT ,WHERE, ORDER BY

```
SELECT customer_id, name, email, created_at
FROM Customers
WHERE YEAR(created_at) = 2024
ORDER BY created_at DESC;
```



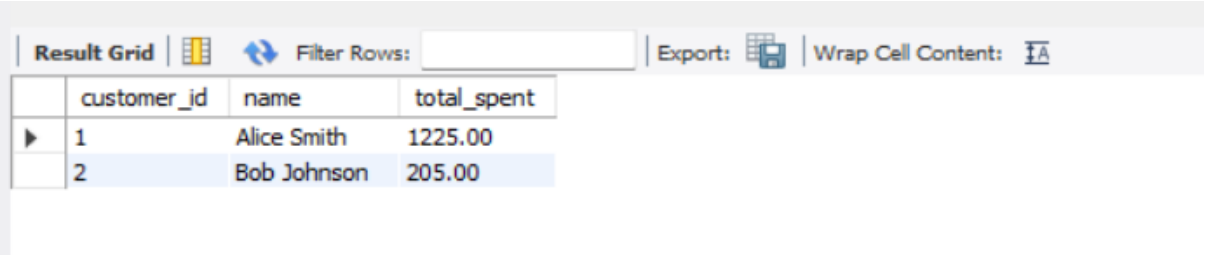
Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

customer_id	name	email	created_at
3	Charlie Brown	charlie@example.com	2024-03-05
2	Bob Johnson	bob@example.com	2024-02-10
1	Alice Smith	alice@example.com	2024-01-15
NULL	NULL	NULL	NULL

Customers 15

B. USE JOINS

```
SELECT c.customer_id, c.name, SUM(o.total_amount) AS total_spent
FROM Customers c
JOIN Orders o ON c.customer_id = o.customer_id
GROUP BY c.customer_id, c.name
ORDER BY total_spent DESC;
```

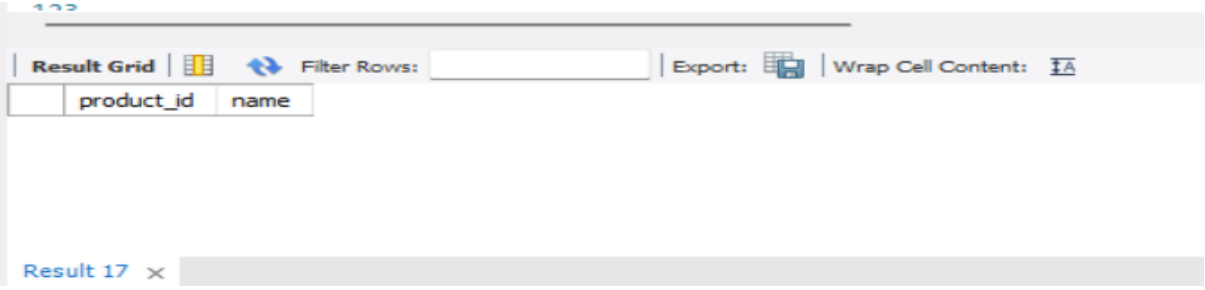


Result Grid | Filter Rows: | Export: | Wrap Cell Content:

customer_id	name	total_spent
1	Alice Smith	1225.00
2	Bob Johnson	205.00

C. USE LEFT JOIN

```
SELECT p.product_id, p.name
FROM Products p
LEFT JOIN OrderItems oi ON p.product_id = oi.product_id
WHERE oi.order_item_id IS NULL;
```



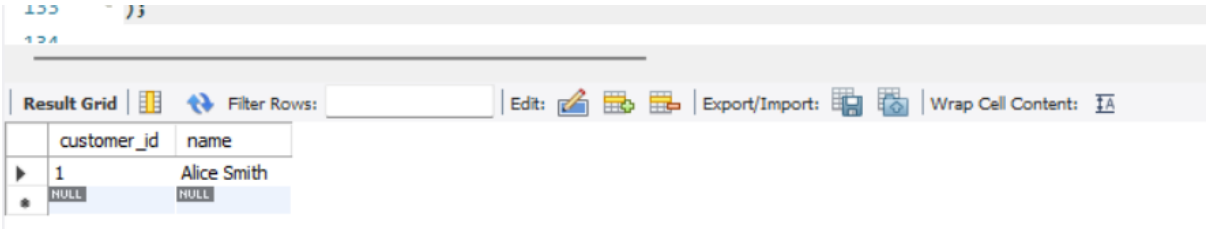
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

product_id	name

Result 17

D. USE SUM, AVG

```
SELECT customer_id, name
FROM Customers
WHERE customer_id IN (
  SELECT o.customer_id
  FROM Orders o
  GROUP BY o.customer_id
  HAVING SUM(o.total_amount) > (
    SELECT AVG(total_amount) FROM Orders
  )
);
```

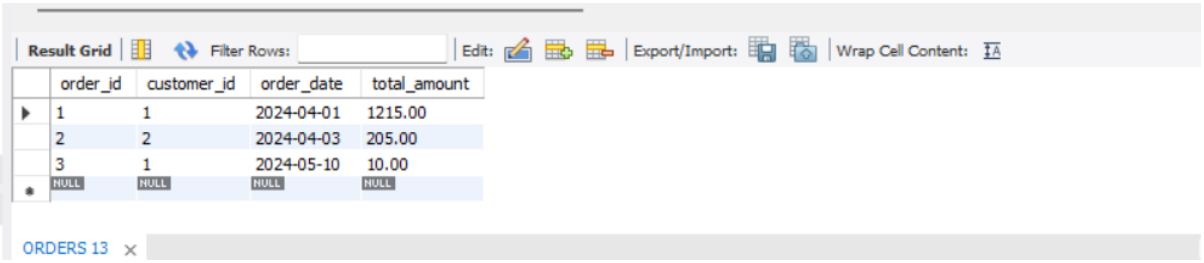


Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

customer_id	name
1	Alice Smith
NULL	NULL

E. View for Monthly Sales Summary

```
CREATE OR REPLACE VIEW Monthly_Sales_Summary AS
SELECT DATE_FORMAT(order_date, '%Y-%m') AS month,
      SUM(total_amount) AS revenue,
      COUNT(*) AS order_count
FROM Orders
GROUP BY month;
SELECT * FROM ORDERS;
```



Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

order_id	customer_id	order_date	total_amount
1	1	2024-04-01	1215.00
2	2	2024-04-03	205.00
3	1	2024-05-10	10.00
NULL	NULL	NULL	NULL

ORDERS 13 ×

F. Index for Optimization

```
CREATE INDEX idx_orders_customer_id ON Orders(customer_id);
SELECT * FROM ORDERS;
```