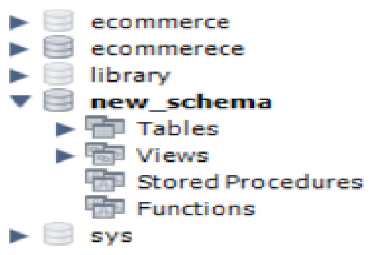
SQL QUERIES AND OUTPUTS

-- create database ecommerce

OUTPUT:



```
▶ ecommerce
▶ ecommerece
▶ library
▼ new_schema
    ▶ Tables
    ▶ Views
      Stored Procedures
      Functions
▶ sys
```

-- Create Tables and Inserting Data

-- Create Customer Table

create table customers (Customer_ID integer primary key, Name text, Email text, Country text);

select * from customers;

insert into customers values

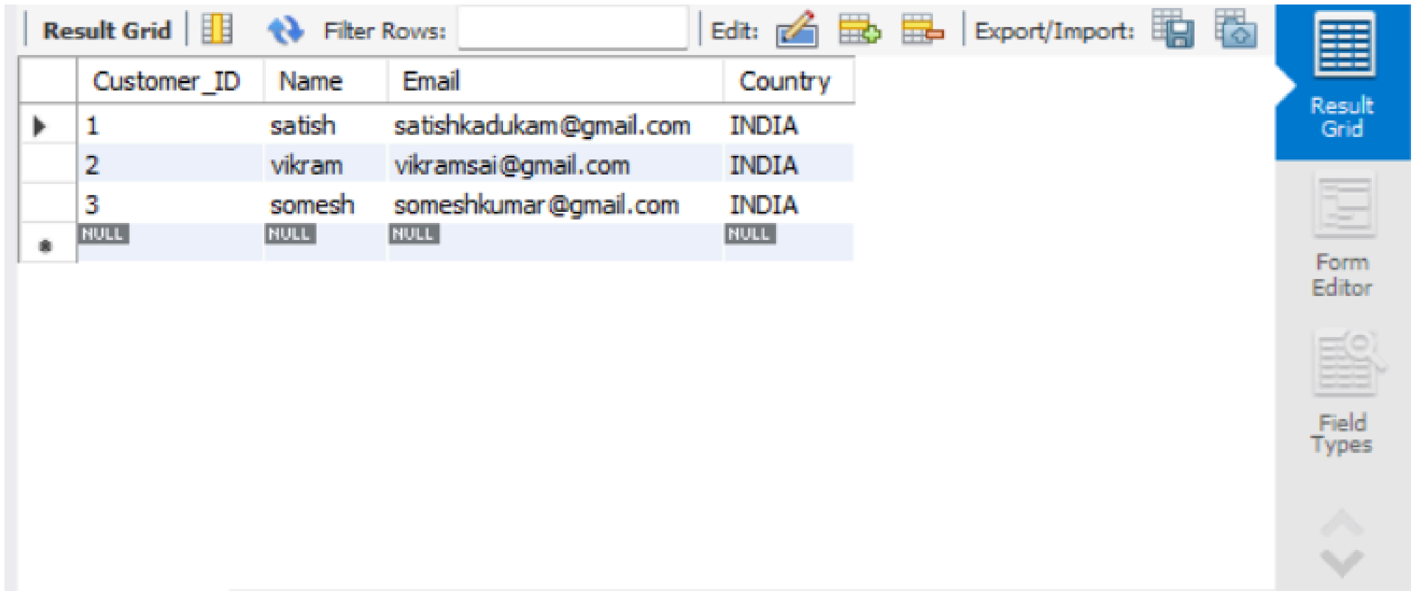
(1,'satish', 'satishkadukam@gmail.com', 'INDIA'),

(2,'vikram', 'vikramsai@gmail.com', 'INDIA'),

(3,'somesh', 'someshkumar@gmail.com', 'INDIA');

select * from customerss;

OUTPUT:



Customer_ID	Name	Email	Country
1	satish	satishkadukam@gmail.com	INDIA
2	vikram	vikramsai@gmail.com	INDIA
3	somesh	someshkumar@gmail.com	INDIA
NULL	NULL	NULL	NULL

-- create Products Table

create table products (

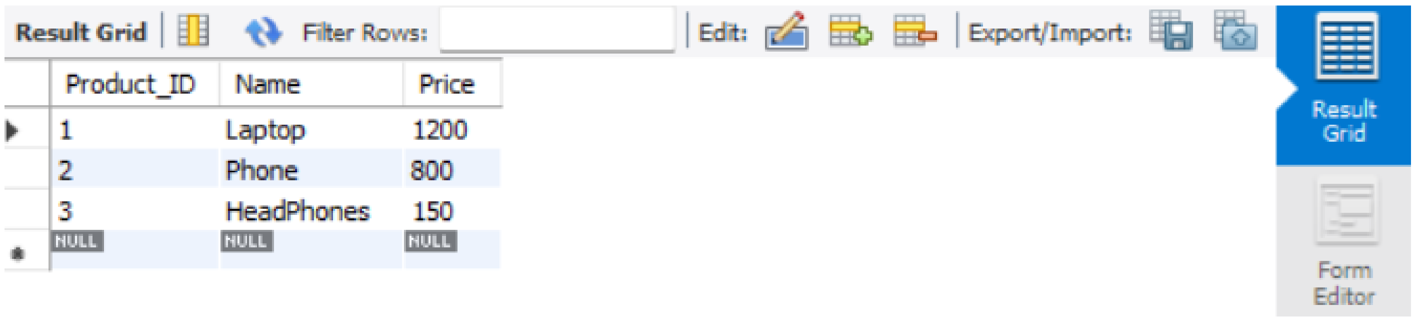
Product_ID integer primary key, Name text, Price real);

select * from products;

insert into products values

```
(1, 'Laptop', 1200.00),
(2, 'Phone', 800.00),
(3, 'HeadPhones', 150.00);
select * from products;
```

OUTPUT:

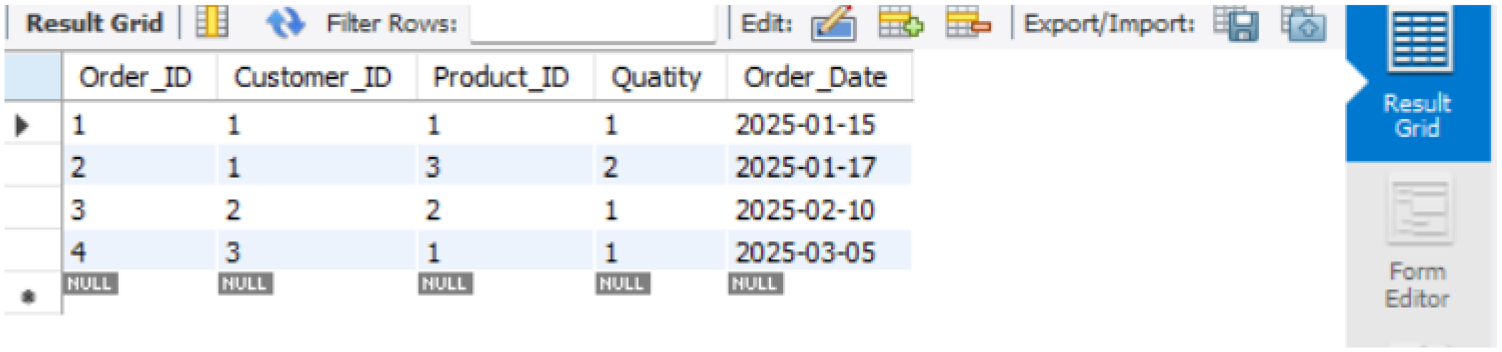


Product_ID	Name	Price
1	Laptop	1200
2	Phone	800
3	HeadPhones	150
NULL	NULL	NULL

```
-- create orders table
create table orders (
Order_ID integer primary key,
Customer_ID integer,
Product_ID integer,
Quatity integer,
Order_Date date,
foreign key (Customer_ID) references
customers (Customer_ID),
foreign key (Product_ID) references
products (Product_ID));

insert into orders values
(1, 1, 1, 1, '2025-01-15'),
(2, 1, 3, 2, '2025-01-17'),
(3, 2, 2, 1, '2025-02-10'),
(4, 3, 1, 1, '2025-03-05');
select * from orders;
```

OUTPUT:

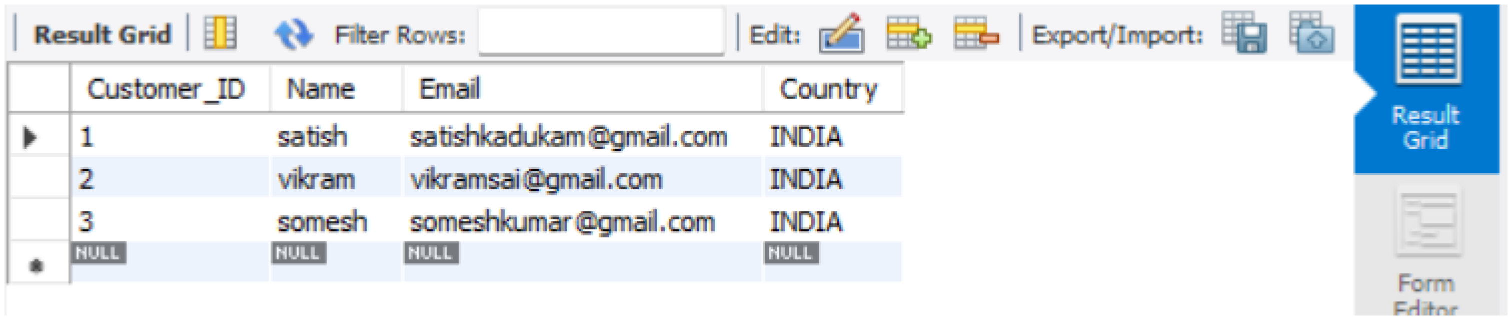


Order_ID	Customer_ID	Product_ID	Quatity	Order_Date
1	1	1	1	2025-01-15
2	1	3	2	2025-01-17
3	2	2	1	2025-02-10
4	3	1	1	2025-03-05
NULL	NULL	NULL	NULL	NULL

-- USING SELECT WHERE ORDER BY Queries
-- Get all customers from INDIA

select * from customers where Country = 'INDIA';

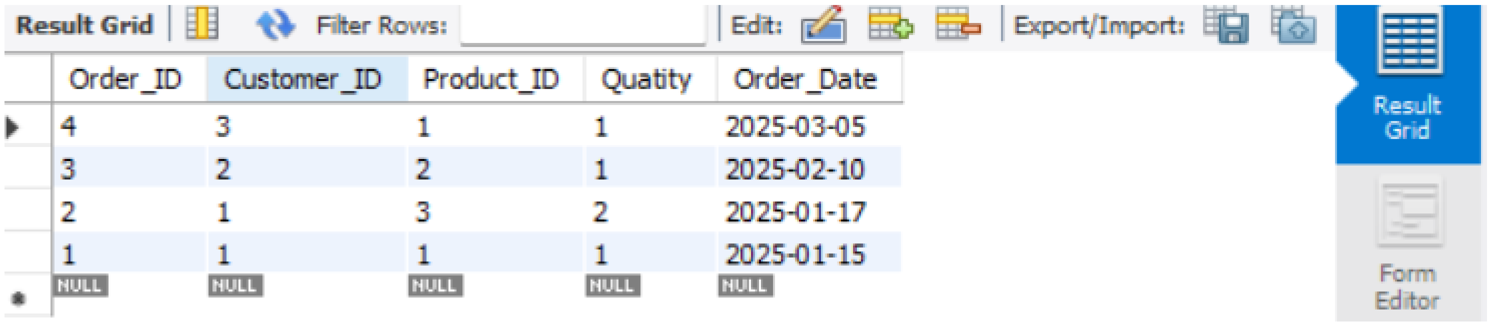
OUTPUT:



Customer_ID	Name	Email	Country
1	satish	satishkadukam@gmail.com	INDIA
2	vikram	vikramsai@gmail.com	INDIA
3	somesh	someshkumar@gmail.com	INDIA
NULL	NULL	NULL	NULL

-- Get all orders, ordered by order date (latest first)
select * from orders order by Order_Date desc;

OUTPUT:

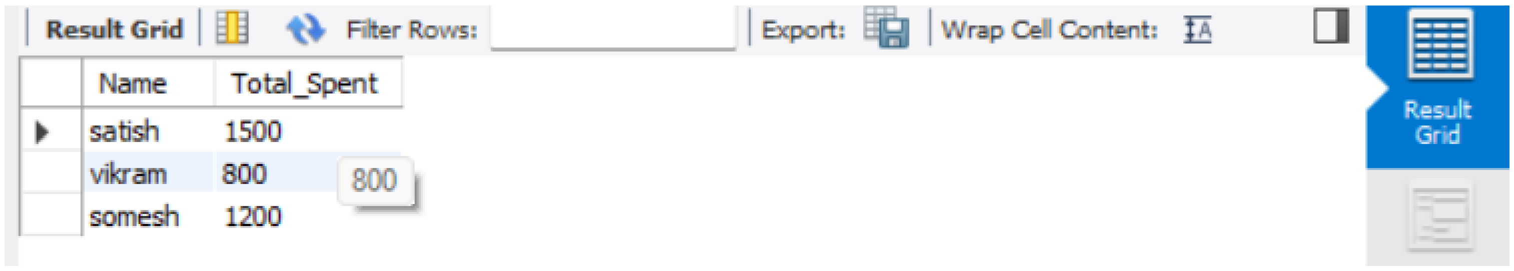


Order_ID	Customer_ID	Product_ID	Quatity	Order_Date
4	3	1	1	2025-03-05
3	2	2	1	2025-02-10
2	1	3	2	2025-01-17
1	1	1	1	2025-01-15
NULL	NULL	NULL	NULL	NULL

-- USING GROUP BY and AGGREGATE FUNCTIONS SUM AVG
-- Total Revenue per Customer

```
select c.Name, sum(p.Price * o.Quatity) as Total_Spent
from orders o
join customers c on o.Customer_ID = c.Customer_ID
join products p on o.Product_ID = p.Product_ID
group by c.Name;
```

OUTPUT:

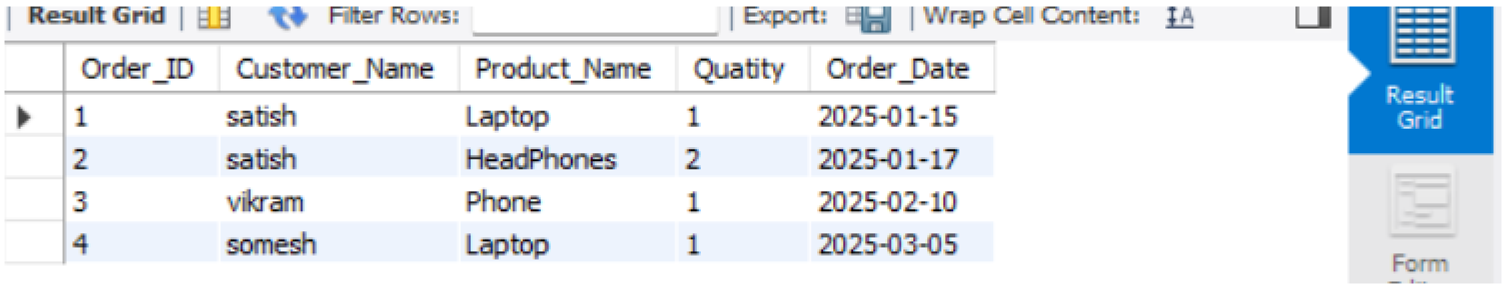


Name	Total_Spent
satish	1500
vikram	800
somesh	1200

-- USING JOINS INNER LEFT RIGHT
-- Inner Join Show all orders with customer and product details

```
 select o.Order_ID, c.Name as Customer_Name,
 p.Name as Product_Name, o.Quatity, o.Order_Date from orders o
 join customers c on o.Customer_ID = c.Customer_ID
 join products p on o.Product_ID = p.Product_ID;
```

OUTPUT:



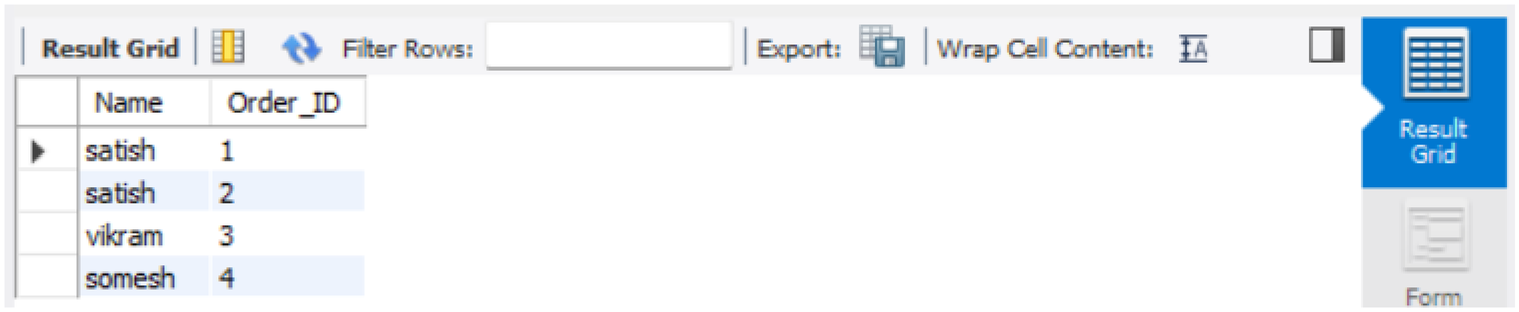
Order_ID	Customer_Name	Product_Name	Quatity	Order_Date
1	satish	Laptop	1	2025-01-15
2	satish	HeadPhones	2	2025-01-17
3	vikram	Phone	1	2025-02-10
4	somesh	Laptop	1	2025-03-05

-- Left Join Show all Customers and their orders (if any)

```
 select c.Name, o.Order_ID
 from customers c
 left join orders o on c.Customer_ID = o.Customer_ID;
```

-- Note :
-- RIGHT JOIN (not supported in SQLite; for PostgreSQL/MySQL)
-- Show all orders with customers (same as LEFT JOIN flipped)
-- SELECT o.Order_ID, c.Name
-- FROM orders o
-- RIGHT JOIN customers c ON c.Customer_ID = o.Customer_ID;

OUTPUT:

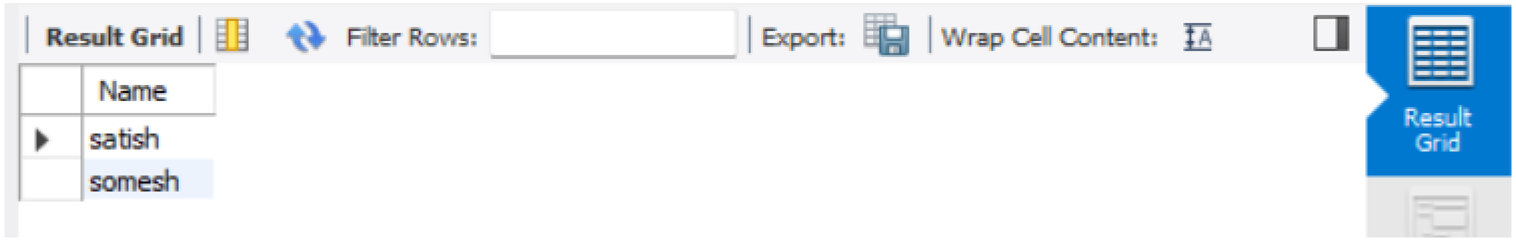


Name	Order_ID
satish	1
satish	2
vikram	3
somesh	4

-- USING SUB-QUERIS
-- Customers who Spent more than Average total spend

```
SELECT Name
FROM customers
WHERE Customer_ID IN (
    SELECT o.Customer_ID
    FROM orders o
    JOIN products p ON o.Product_ID = p.Product_ID
    GROUP BY o.Customer_ID
    HAVING SUM(p.Price * o.Quatity) > (
        SELECT AVG(Total_Spent)
        FROM (
            SELECT o.Customer_ID, SUM(p.Price * o.Quatity) AS Total_Spent
            FROM orders o
            JOIN products p ON o.Product_id = p.Product_id
            GROUP BY o.Customer_ID
        ) AS subquery_alias
)
);
```

OUTPUT:

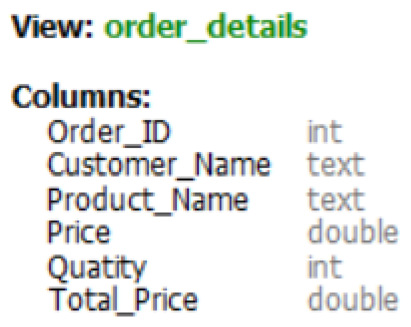


```
Name
satish
somesh
```

-- USING VIEW
-- View Creation
-- Create a view for detailed order information

```
create view Order_Details as
select o.Order_ID, c.Name as Customer_Name,
p.Name as Product_Name, p.Price, o.Quatity,
(p.Price * o.Quatity) as Total_Price
from orders o
join customers c on o.Customer_ID = c.Customer_ID
join products p on o.Product_ID = p.Product_ID;
```

OUTPUT:



View: order_details

Columns:

Order_ID	int
Customer_Name	text
Product_Name	text
Price	double
Quatity	int
Total_Price	double

```
-- Query Optimization Tip
create index idx_Customer_ID on
orders(Customer_ID);
create index idx_Product_ID ON
orders(Product_ID);
```