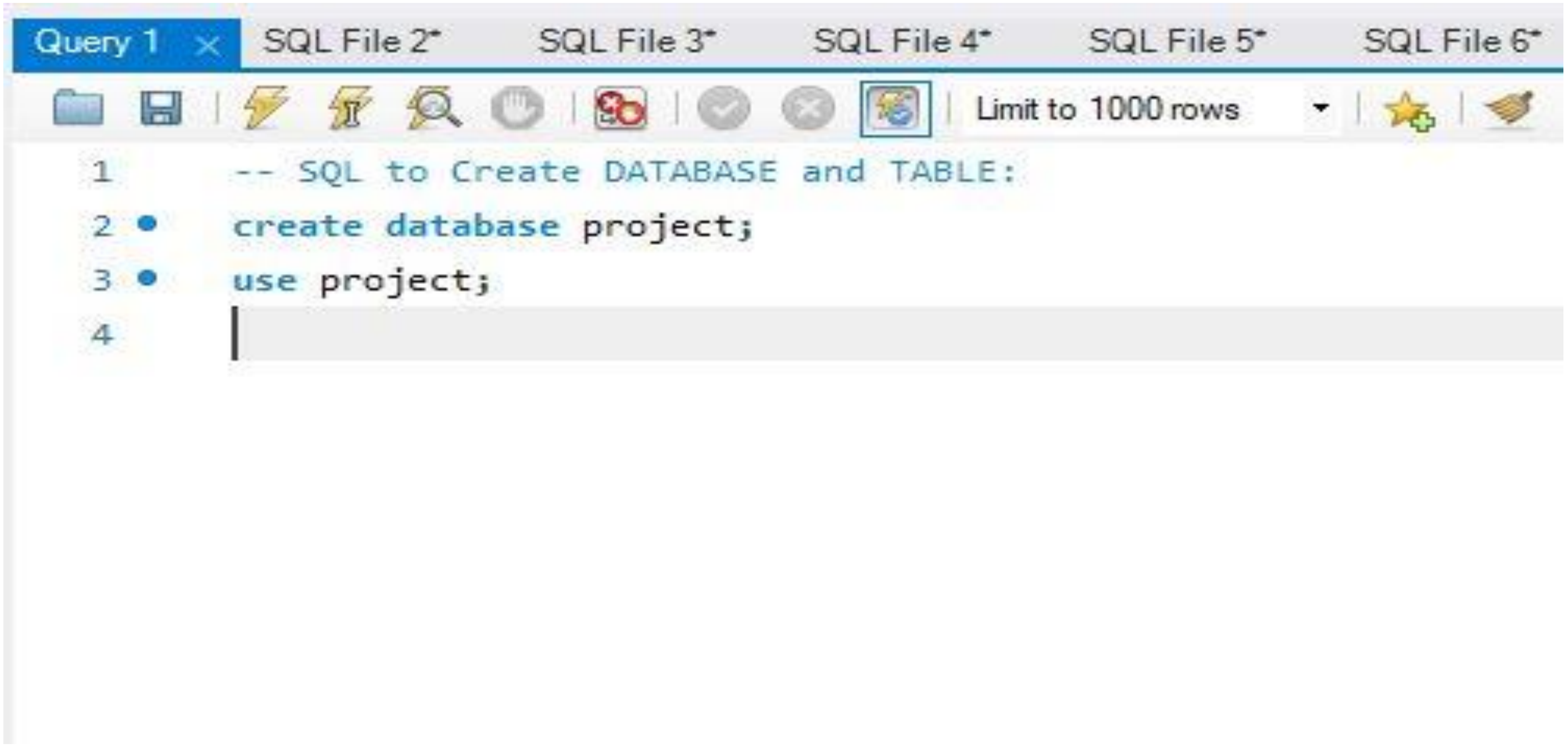
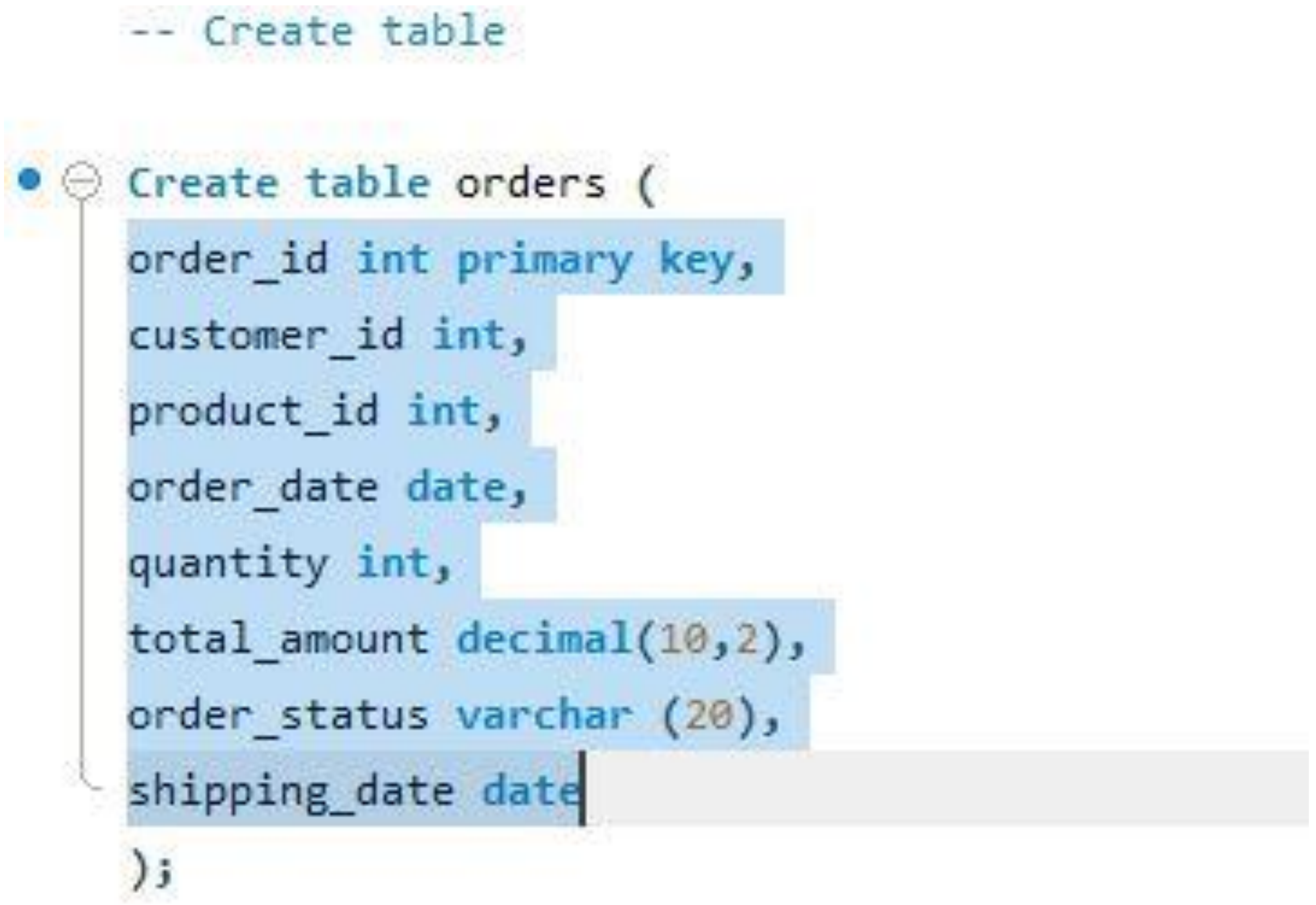
SQL Based -Customer Order Analysis

-- SQL to Create DATABASE and TABLE:



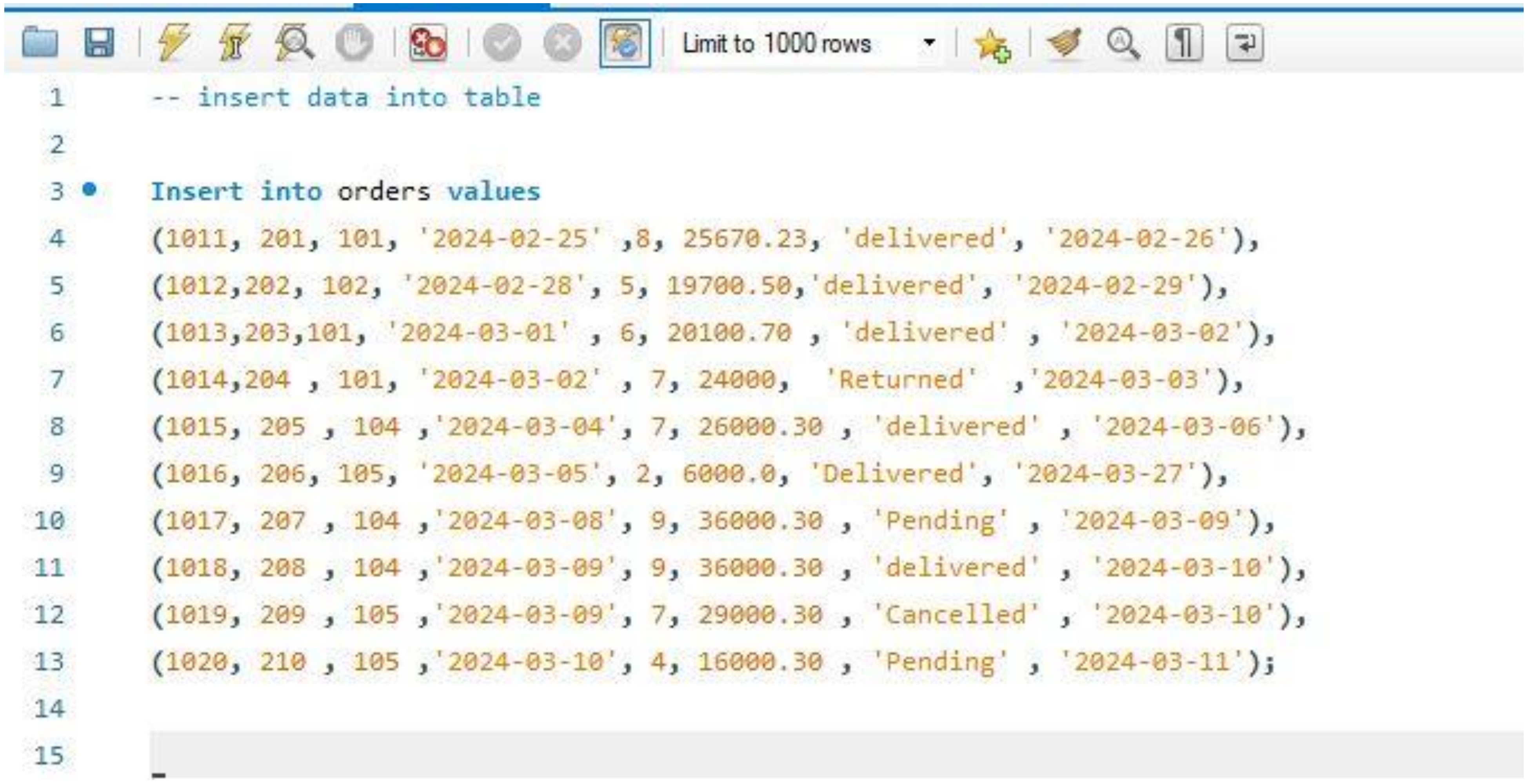
```sql
-- SQL to Create DATABASE and TABLE:
create database project;
use project;

```

-- Create table



```
-- Create table

Create table orders (
order_id int primary key,
customer_id int,
product_id int,
order_date date,
quantity int,
total_amount decimal(10,2),
order_status varchar (20),
shipping_date date
);
```

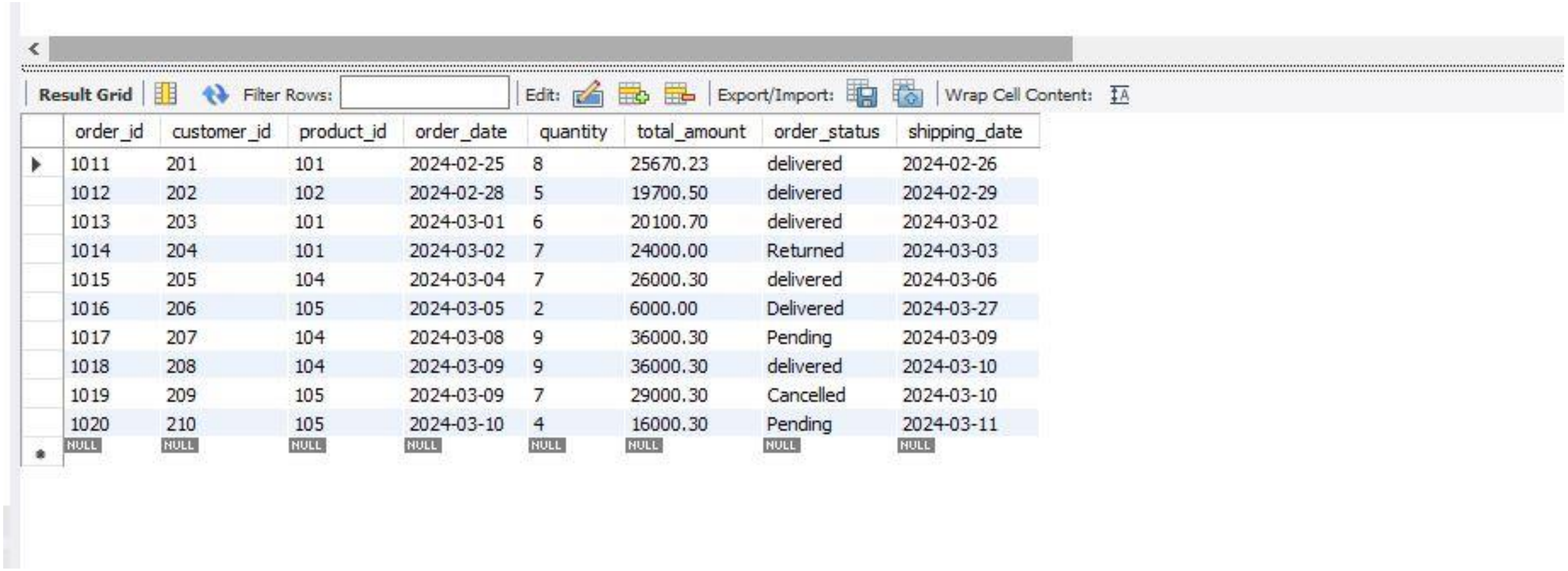
-- insert data into table



Limit to 1000 rows

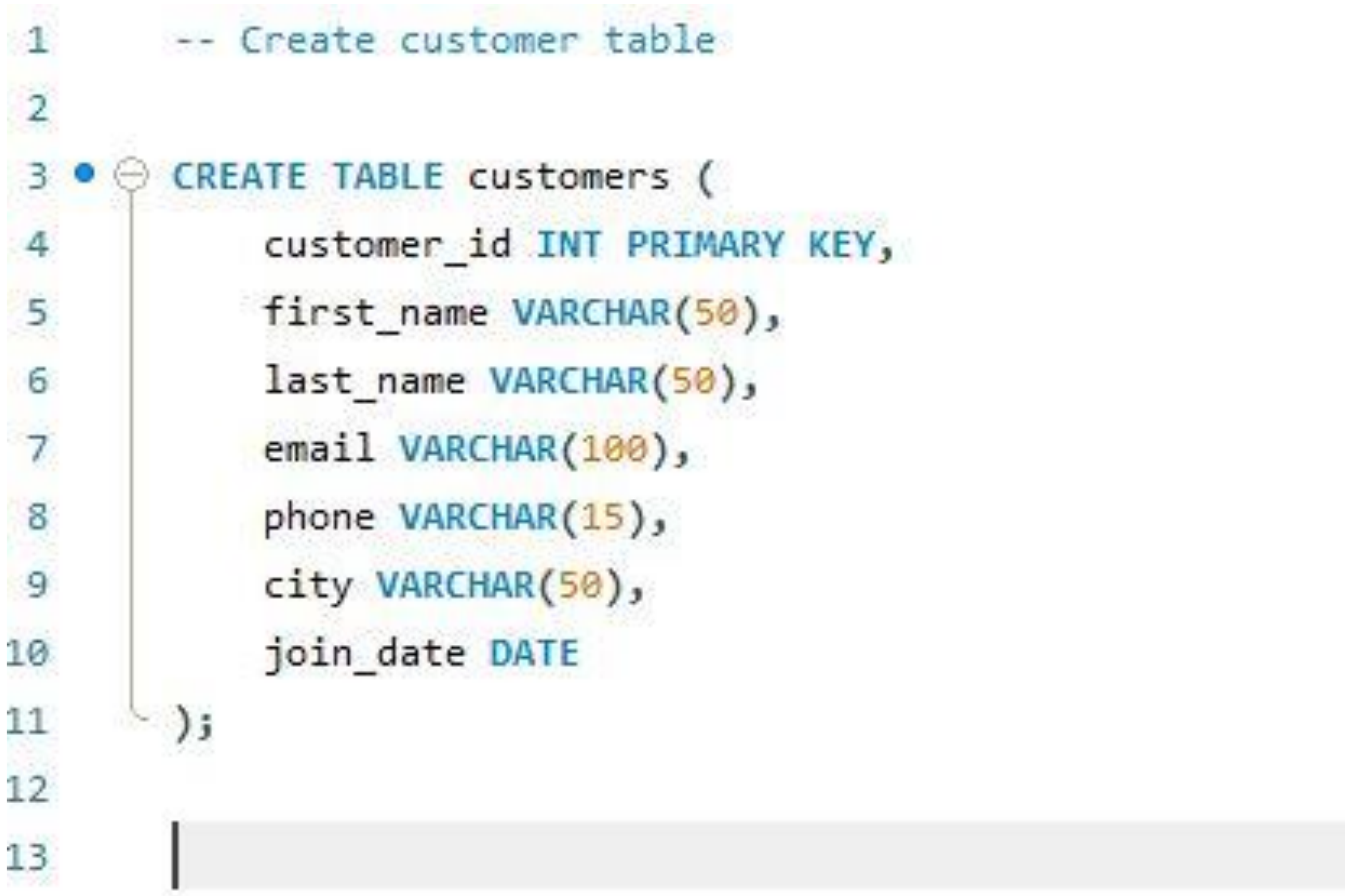
```
-- insert data into table

Insert into orders values
(1011, 201, 101, '2024-02-25' ,8, 25670.23, 'delivered', '2024-02-26'),
(1012,202, 102, '2024-02-28', 5, 19700.50,'delivered', '2024-02-29'),
(1013,203,101, '2024-03-01' , 6, 20100.70 , 'delivered' , '2024-03-02'),
(1014,204 , 101, '2024-03-02' , 7, 24000,  'Returned'  ,'2024-03-03'),
(1015, 205 , 104 ,'2024-03-04', 7, 26000.30 , 'delivered' , '2024-03-06'),
(1016, 206, 105, '2024-03-05', 2, 6000.0, 'Delivered', '2024-03-27'),
(1017, 207 , 104 ,'2024-03-08', 9, 36000.30 , 'Pending' , '2024-03-09'),
(1018, 208 , 104 ,'2024-03-09', 9, 36000.30 , 'delivered' , '2024-03-10'),
(1019, 209 , 105 ,'2024-03-09', 7, 29000.30 , 'Cancelled' , '2024-03-10'),
(1020, 210 , 105 ,'2024-03-10', 4, 16000.30 , 'Pending' , '2024-03-11');


```

Orders Table View



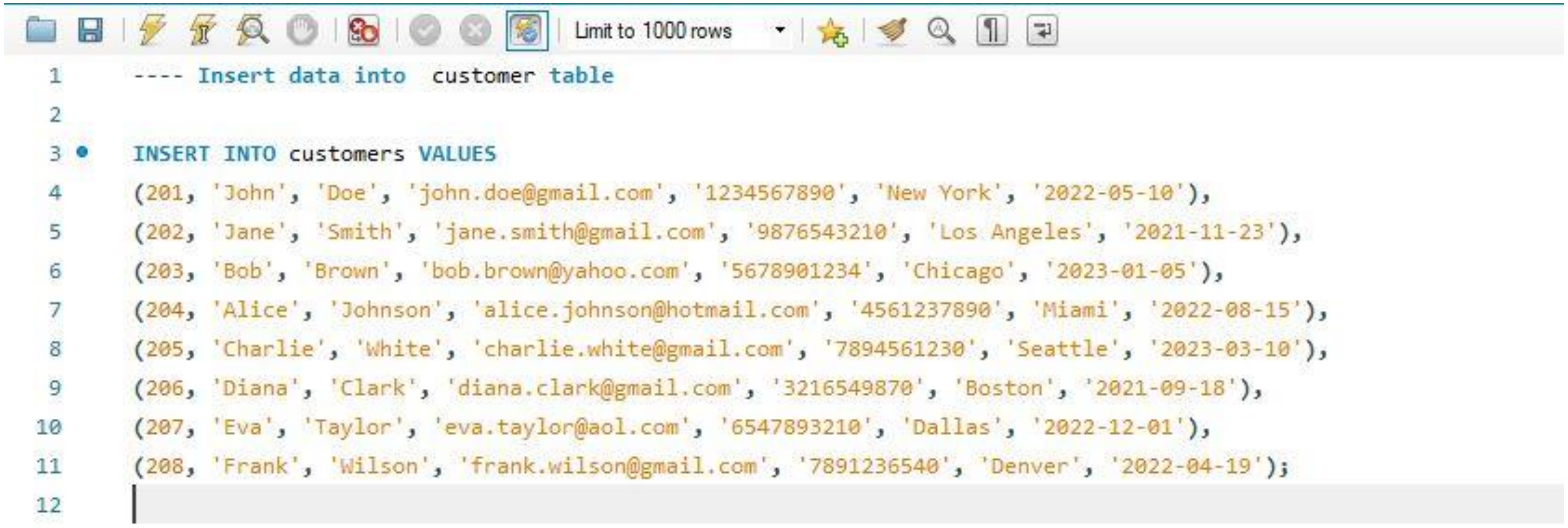
order_id	customer_id	product_id	order_date	quantity	total_amount	order_status	shipping_date
1011	201	101	2024-02-25	8	25670.23	delivered	2024-02-26
1012	202	102	2024-02-28	5	19700.50	delivered	2024-02-29
1013	203	101	2024-03-01	6	20100.70	delivered	2024-03-02
1014	204	101	2024-03-02	7	24000.00	Returned	2024-03-03
1015	205	104	2024-03-04	7	26000.30	delivered	2024-03-06
1016	206	105	2024-03-05	2	6000.00	Delivered	2024-03-27
1017	207	104	2024-03-08	9	36000.30	Pending	2024-03-09
1018	208	104	2024-03-09	9	36000.30	delivered	2024-03-10
1019	209	105	2024-03-09	7	29000.30	Cancelled	2024-03-10
1020	210	105	2024-03-10	4	16000.30	Pending	2024-03-11
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

-- Create customer table



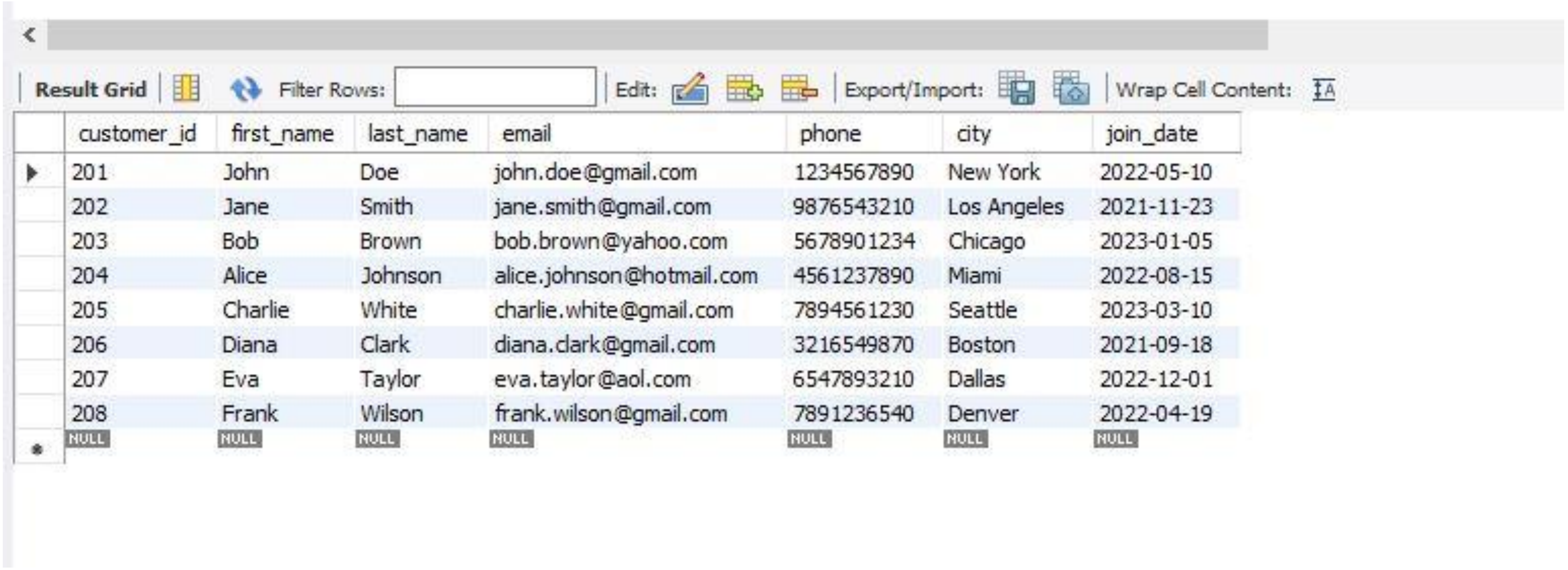
```sql
-- Create customer table

CREATE TABLE customers (
    customer_id INT PRIMARY KEY,
    first_name VARCHAR(50),
    last_name VARCHAR(50),
    email VARCHAR(100),
    phone VARCHAR(15),
    city VARCHAR(50),
    join_date DATE
);

```

---- Insert data into customer table



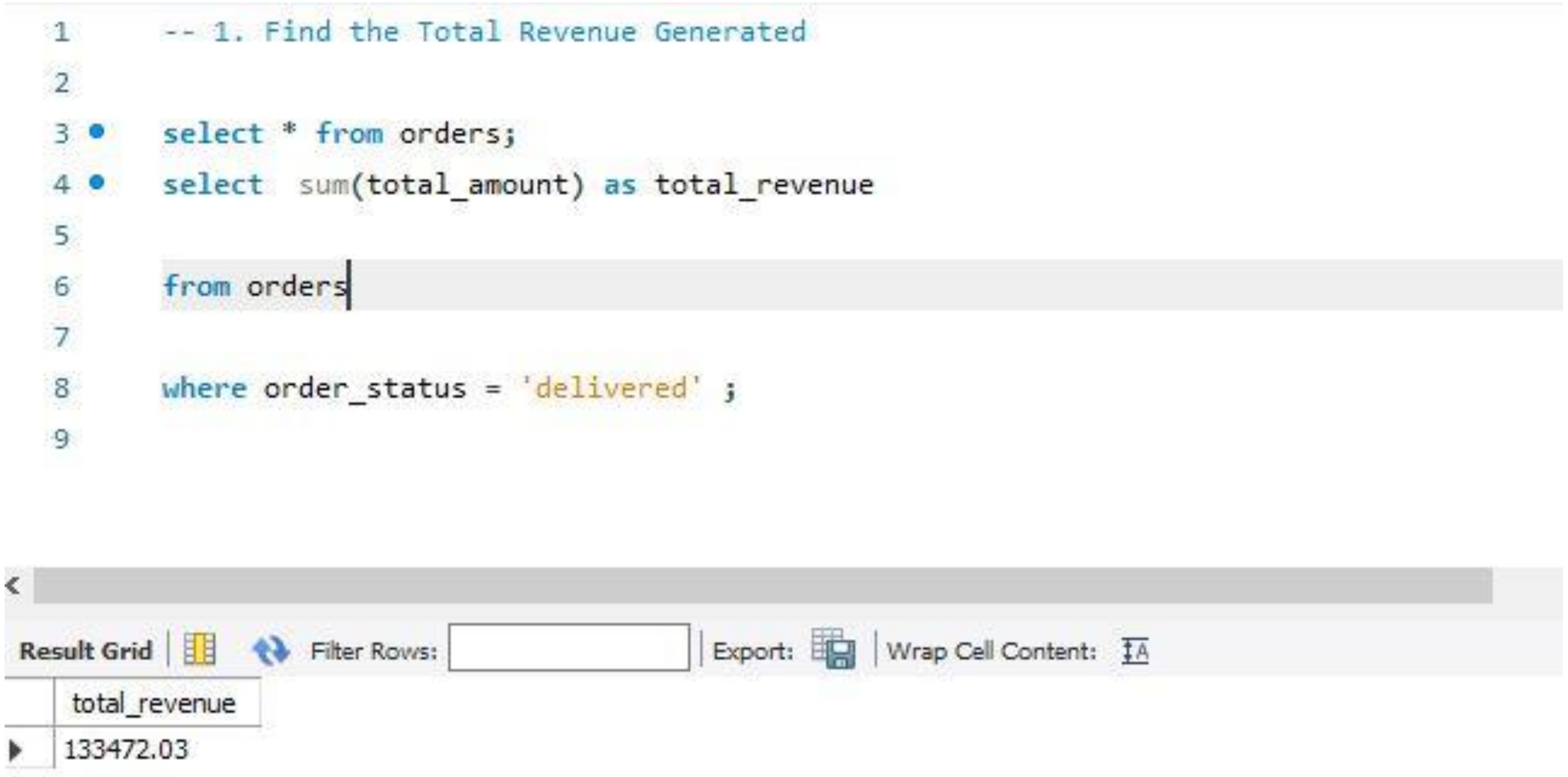
```
---- Insert data into  customer table

INSERT INTO customers VALUES
(201, 'John', 'Doe', 'john.doe@gmail.com', '1234567890', 'New York', '2022-05-10'),
(202, 'Jane', 'Smith', 'jane.smith@gmail.com', '9876543210', 'Los Angeles', '2021-11-23'),
(203, 'Bob', 'Brown', 'bob.brown@yahoo.com', '5678901234', 'Chicago', '2023-01-05'),
(204, 'Alice', 'Johnson', 'alice.johnson@hotmail.com', '4561237890', 'Miami', '2022-08-15'),
(205, 'Charlie', 'White', 'charlie.white@gmail.com', '7894561230', 'Seattle', '2023-03-10'),
(206, 'Diana', 'Clark', 'diana.clark@gmail.com', '3216549870', 'Boston', '2021-09-18'),
(207, 'Eva', 'Taylor', 'eva.taylor@aol.com', '6547893210', 'Dallas', '2022-12-01'),
(208, 'Frank', 'Wilson', 'frank.wilson@gmail.com', '7891236540', 'Denver', '2022-04-19');
```

Customers Table View



customer_id	first_name	last_name	email	phone	city	join_date
201	John	Doe	john.doe@gmail.com	1234567890	New York	2022-05-10
202	Jane	Smith	jane.smith@gmail.com	9876543210	Los Angeles	2021-11-23
203	Bob	Brown	bob.brown@yahoo.com	5678901234	Chicago	2023-01-05
204	Alice	Johnson	alice.johnson@hotmail.com	4561237890	Miami	2022-08-15
205	Charlie	White	charlie.white@gmail.com	7894561230	Seattle	2023-03-10
206	Diana	Clark	diana.clark@gmail.com	3216549870	Boston	2021-09-18
207	Eva	Taylor	eva.taylor@aol.com	6547893210	Dallas	2022-12-01
208	Frank	Wilson	frank.wilson@gmail.com	7891236540	Denver	2022-04-19
NULL	NULL	NULL	NULL	NULL	NULL	NULL

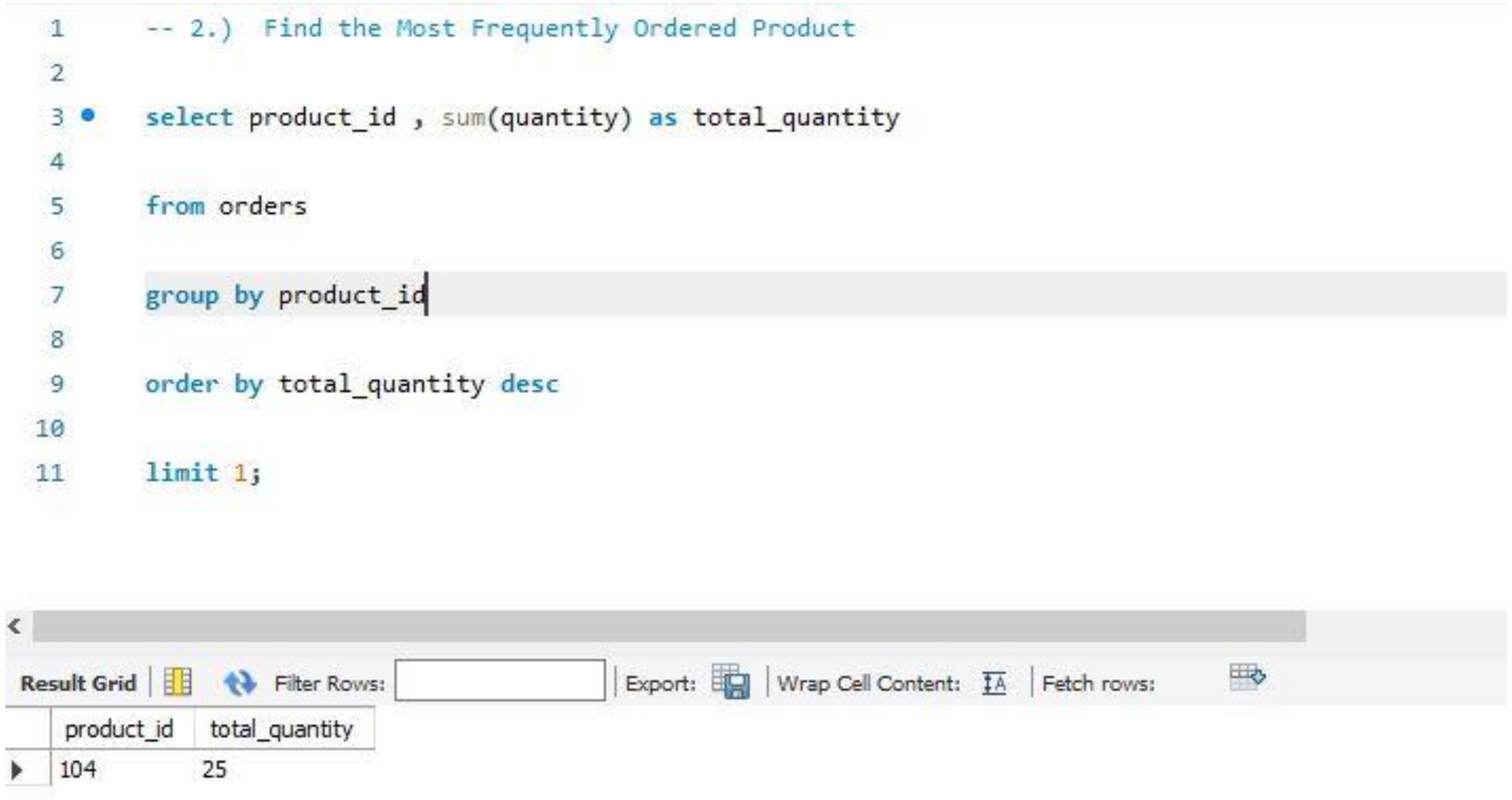
-- 1. Find the Total Revenue Generated



```
-- 1. Find the Total Revenue Generated

select * from orders;
select  sum(total_amount) as total_revenue

from orders

where order_status = 'delivered' ;

```

```
total_revenue
133472.03
```

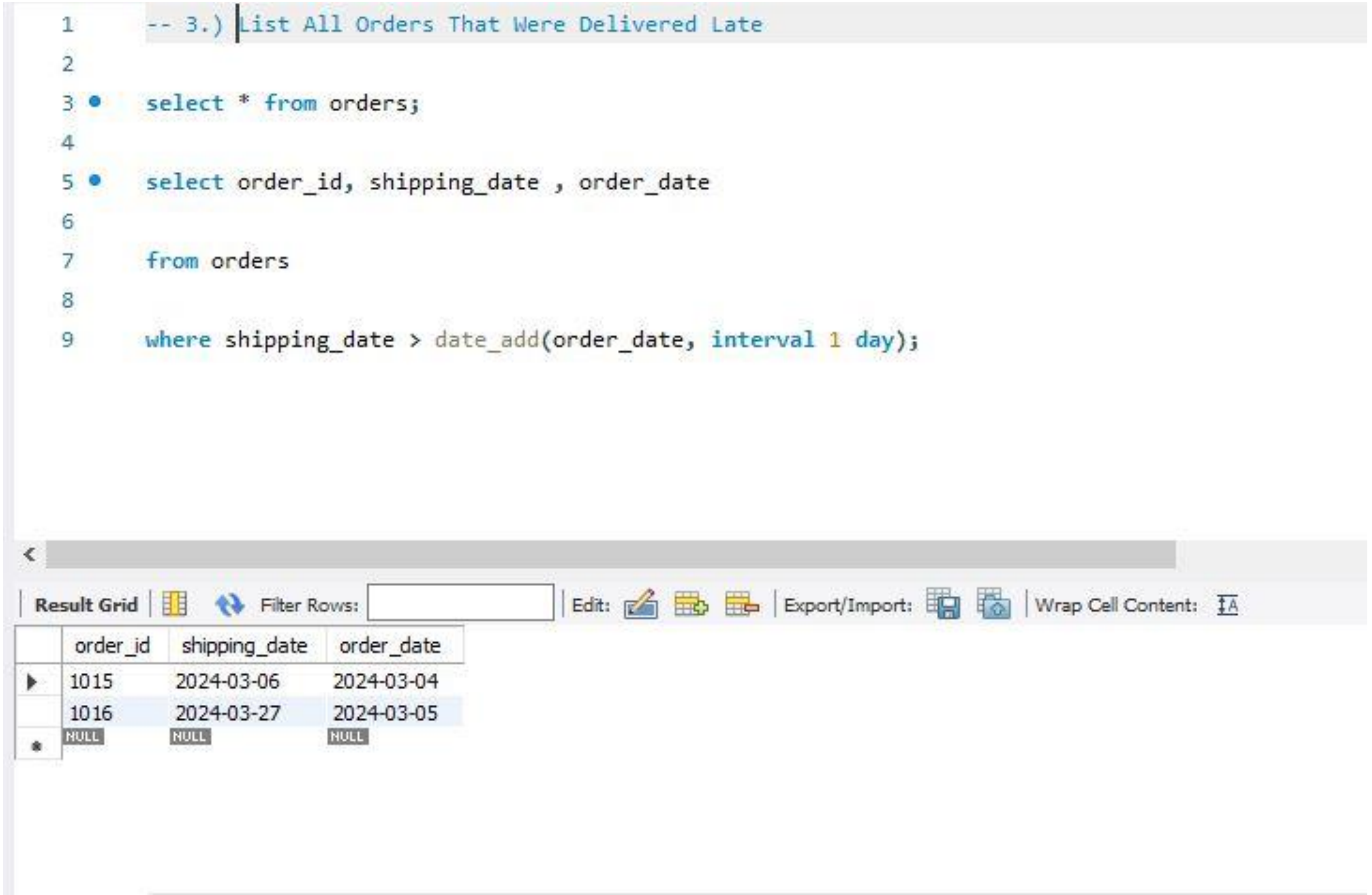
-- 2.) Find the Most Frequently Ordered Product



```
-- 2.)  Find the Most Frequently Ordered Product

select product_id , sum(quantity) as total_quantity

from orders

group by product_id

order by total_quantity desc

limit 1;
```

```
product_id  total_quantity
104         25
```

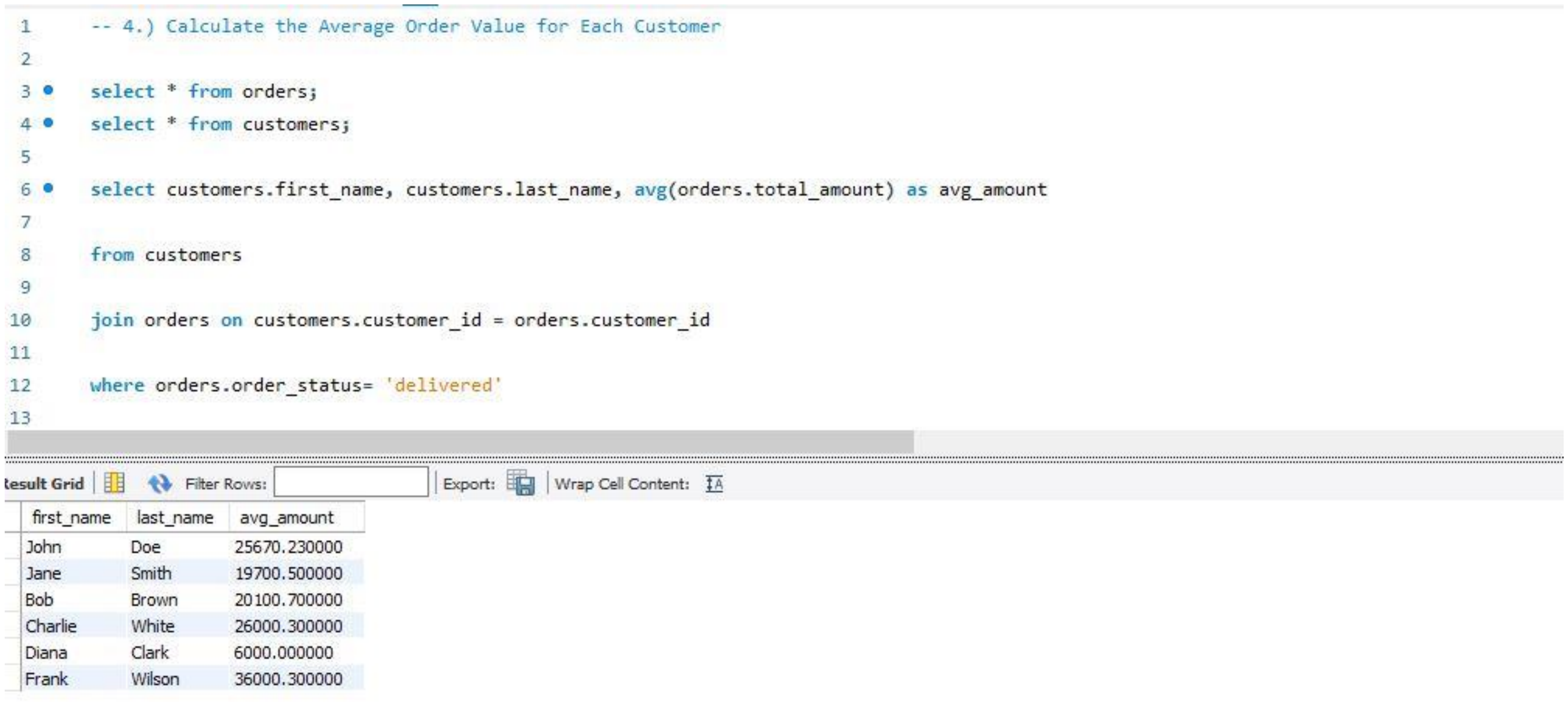
-- 3.) List All Orders That Were Delivered Late



```
-- 3.) List All Orders That Were Delivered Late

select * from orders;

select order_id, shipping_date , order_date

from orders

where shipping_date > date_add(order_date, interval 1 day);
```

```
order_id  shipping_date  order_date
1015      2024-03-06     2024-03-04
1016      2024-03-27     2024-03-05
NULL      NULL           NULL
```

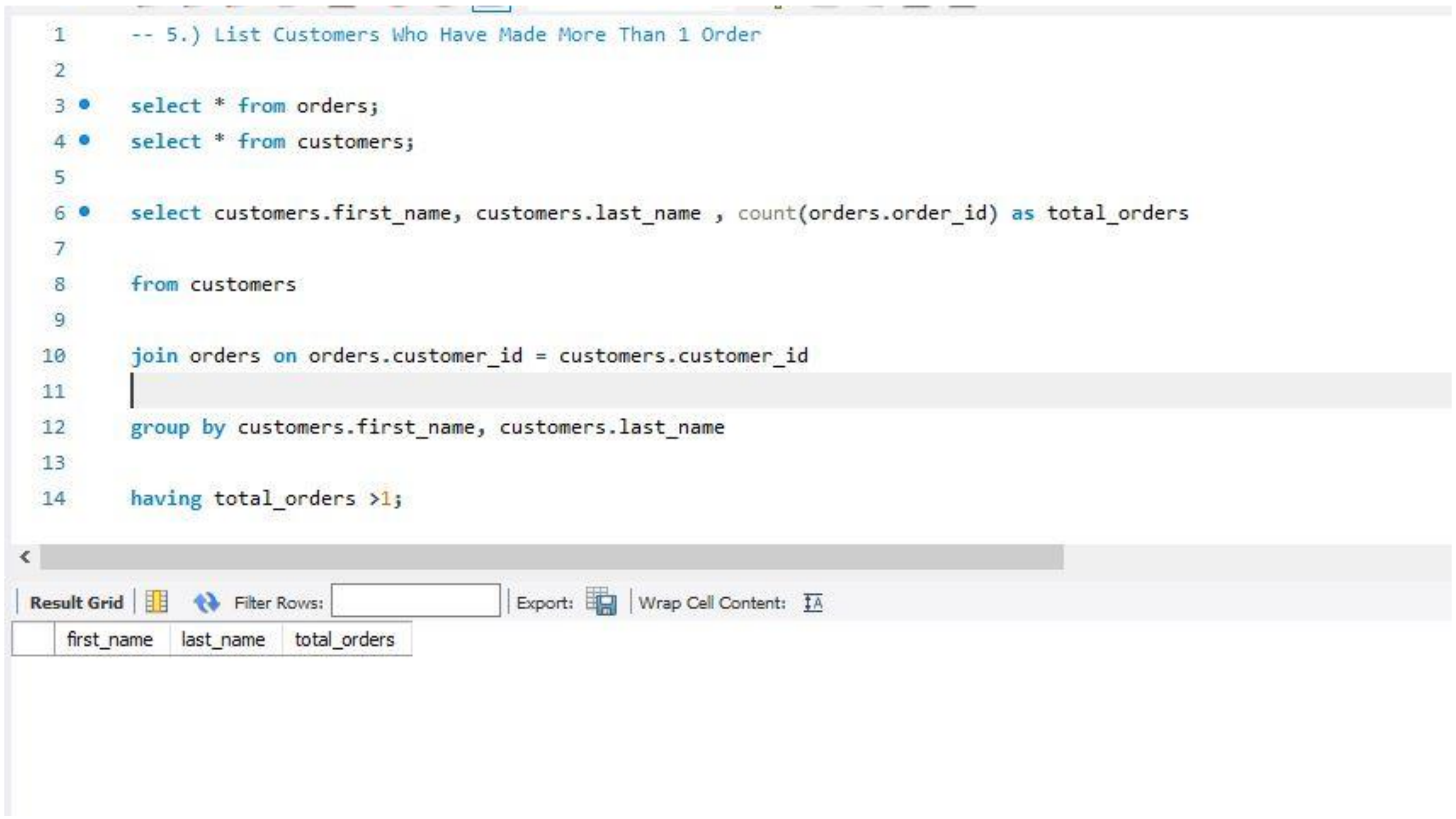
-- 4.) Calculate the Average Order Value for Each Customer



```
-- 4.) Calculate the Average Order Value for Each Customer

select * from orders;
select * from customers;

select customers.first_name, customers.last_name, avg(orders.total_amount) as avg_amount

from customers

join orders on customers.customer_id = orders.customer_id

where orders.order_status= 'delivered'

```

first_name	last_name	avg_amount
John	Doe	25670.230000
Jane	Smith	19700.500000
Bob	Brown	20100.700000
Charlie	White	26000.300000
Diana	Clark	6000.000000
Frank	Wilson	36000.300000

-- 5.) List Customers Who Have Made More Than 1 Order



```
-- 5.) List Customers Who Have Made More Than 1 Order

select * from orders;
select * from customers;

select customers.first_name, customers.last_name , count(orders.order_id) as total_orders

from customers

join orders on orders.customer_id = customers.customer_id

group by customers.first_name, customers.last_name

having total_orders >1;
```

	first_name	last_name	total_orders