

TASK 6: Sales Trend Analysis Using Aggregations

Deliverables: SQL script + results table :-

```
CREATE TABLE superstore_orders (  
  row_id INTEGER,  
  order_id TEXT,  
  order_date DATE,  
  ship_date DATE,  
  ship_mode TEXT,  
  customer_id TEXT,  
  customer_name TEXT,  
  segment TEXT,  
  country TEXT,  
  city TEXT,  
  state TEXT,  
  postal_code TEXT,  
  region TEXT,  
  product_id TEXT,  
  category TEXT,  
  sub_category TEXT,  
  product_name TEXT,  
  sales NUMERIC,  
  quantity INTEGER,  
  discount NUMERIC,  
  profit NUMERIC  
);
```

* By Right clicking on the table and choosing the extract CSV file I have imported the Sales data Sheet in PGAdmin Postgre SQL and then By using This Query I have obtained The whole Data Set in SQL.

- Showing Whole Dataset in SQL

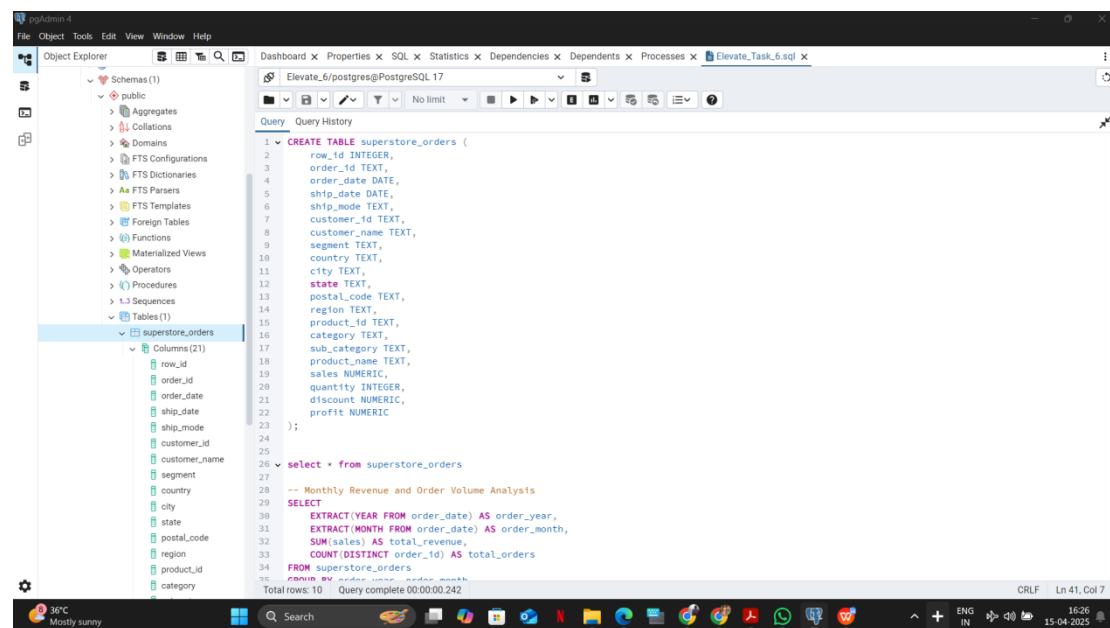
select * from superstore_orders

The screenshot displays the PGAdmin 4 interface. On the left, the 'Object Explorer' shows the database structure, including 'Schemas (1)', 'public', 'Aggregates', 'Collations', 'Domains', 'Foreign Data Wrappers', 'Functions', 'Materialized Views', 'Operators', 'Procedures', 'Sequences', and 'Tables (1)'. The 'superstore_orders' table is selected under 'Tables (1)'. The main window shows the 'Data Output' tab for the 'superstore_orders' table. The table has 17 columns: row_id, order_id, order_date, ship_date, ship_mode, customer_id, customer_name, segment, country, city, state, postal_code, region, product_id, category, sub_category, and product_name. The data is displayed in a grid with 24 rows visible. The status bar at the bottom indicates 'Total rows: 9994' and 'Query complete 00:00:01.825'.

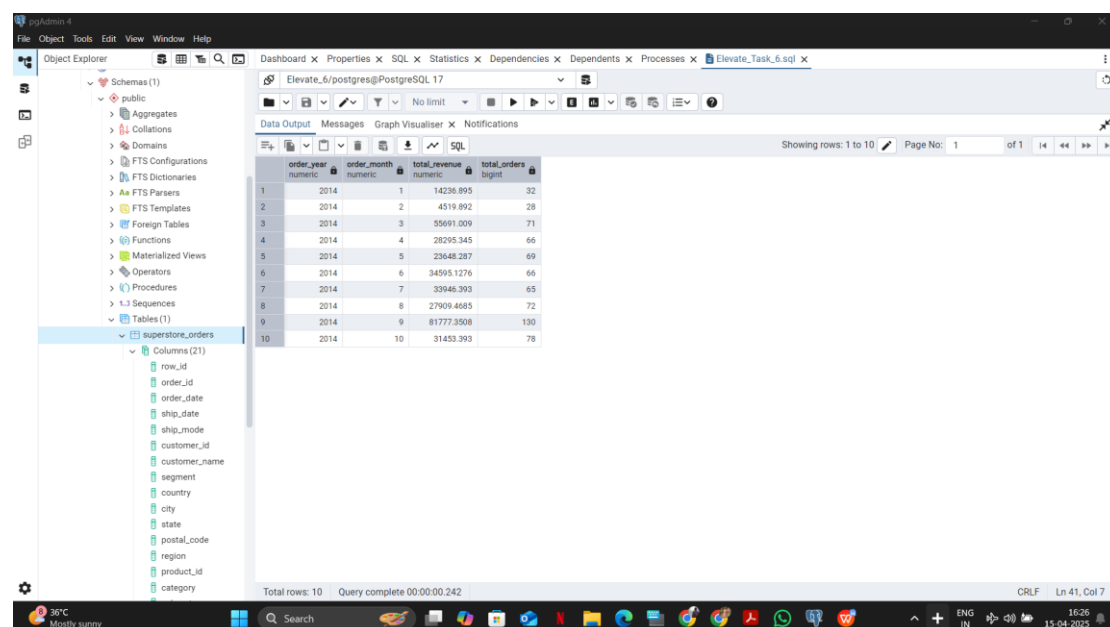
row_id	order_id	order_date	ship_date	ship_mode	customer_id	customer_name	segment	country	city	state	postal_code	region	product_id	category	sub_category	product_name
1	CA-2016-152156	2016-11-08	2016-11-11	Second Class	CG-12520	Claire Gule	Consumer	United States	Henderson	Kentucky	42420	South	FUR			
2	CA-2016-152156	2016-11-08	2016-11-11	Second Class	CG-12520	Claire Gule	Consumer	United States	Henderson	Kentucky	42420	South	FUR			
3	CA-2016-138688	2016-06-12	2016-06-16	Second Class	DV-13045	Darin Van Huff	Corporate	United States	Los Angeles	California	90036	West	OFF			
4	US-2015-108966	2015-10-11	2015-10-18	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	FUR			
5	US-2015-108966	2015-10-11	2015-10-18	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	OFF			
6	CA-2014-115812	2014-06-09	2014-06-14	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	FUR			
7	CA-2014-115812	2014-06-09	2014-06-14	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	OFF			
8	CA-2014-115812	2014-06-09	2014-06-14	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	TEC			
9	CA-2014-115812	2014-06-09	2014-06-14	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	OFF			
10	CA-2014-115812	2014-06-09	2014-06-14	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	OFF			
11	CA-2014-115812	2014-06-09	2014-06-14	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	FUR			
12	CA-2014-115812	2014-06-09	2014-06-14	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States	Los Angeles	California	90032	West	TEC			
13	CA-2017-114412	2017-04-15	2017-04-20	Standard Class	AA-10480	Andrew Allen	Consumer	United States	Concord	North Carolina	28027	South	OFF			
14	CA-2016-161389	2016-12-05	2016-12-10	Standard Class	IM-15070	Irene Maddox	Consumer	United States	Seattle	Washington	98103	West	OFF			
15	US-2015-118983	2015-11-22	2015-11-26	Standard Class	HP-14815	Harold Pawlan	Home Office	United States	Fort Worth	Texas	76106	Central	OFF			
16	US-2015-118983	2015-11-22	2015-11-26	Standard Class	HP-14815	Harold Pawlan	Home Office	United States	Fort Worth	Texas	76106	Central	OFF			
17	CA-2014-105993	2014-11-11	2014-11-18	Standard Class	PK-19075	Pete Kitz	Consumer	United States	Madison	Wisconsin	53711	Central	OFF			
18	CA-2014-167164	2014-05-13	2014-05-15	Second Class	AG-10270	Alejandro Grove	Consumer	United States	West Jordan	Utah	84084	West	OFF			
19	CA-2014-143336	2014-09-27	2014-09-01	Second Class	ZD-21925	Zuchars Donatelli	Consumer	United States	San Francisco	California	94109	West	OFF			
20	CA-2014-143336	2014-09-27	2014-09-01	Second Class	ZD-21925	Zuchars Donatelli	Consumer	United States	San Francisco	California	94109	West	TEC			
21	CA-2014-143336	2014-09-27	2014-09-01	Second Class	ZD-21925	Zuchars Donatelli	Consumer	United States	San Francisco	California	94109	West	OFF			
22	CA-2016-137330	2016-12-09	2016-12-13	Standard Class	KB-16585	Ken Black	Corporate	United States	Fremont	Nebraska	68025	Central	OFF			
23	CA-2016-137330	2016-12-09	2016-12-13	Standard Class	KB-16585	Ken Black	Corporate	United States	Fremont	Nebraska	68025	Central	OFF			
24	US-2017-156909	2017-07-16	2017-07-18	Second Class	SF-20065	Sandra Pflanzan	Consumer	United States	Philadelphia	Pennsylvania	19140	East	FUR			

-- Monthly Revenue and Order Volume Analysis

```
SELECT
    EXTRACT(YEAR FROM order_date) AS order_year,
    EXTRACT(MONTH FROM order_date) AS order_month,
    SUM(sales) AS total_revenue,
    COUNT(DISTINCT order_id) AS total_orders
FROM superstore_orders
GROUP BY order_year, order_month
ORDER BY order_year, order_month
limit 10
```

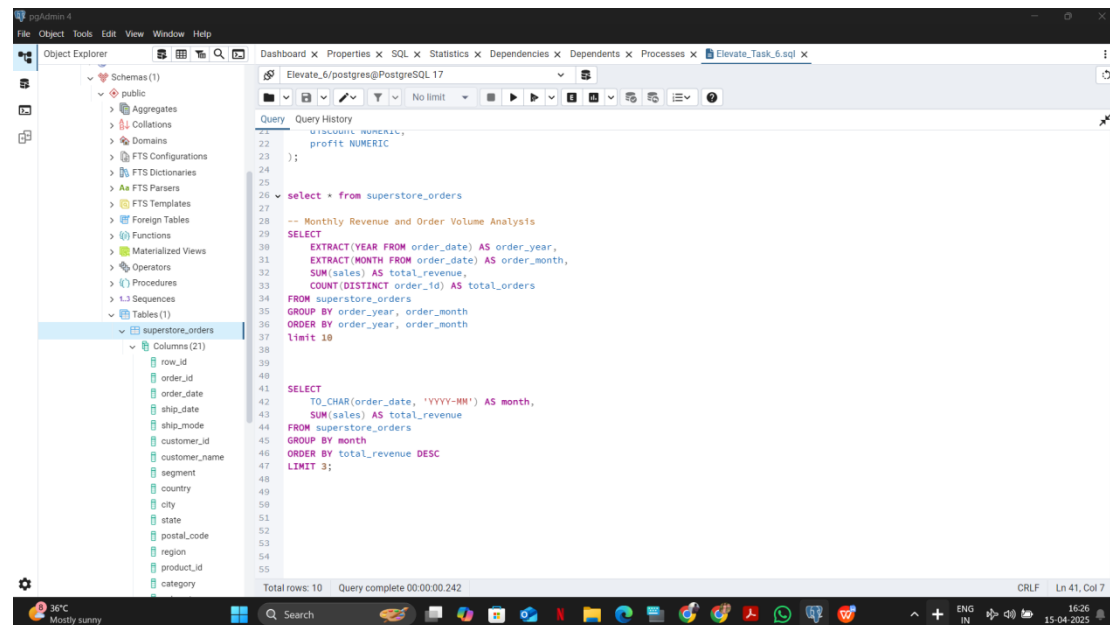


- Result Table



Optional: Top 3 Months by Sales

```
SELECT
    TO_CHAR(order_date, 'YYYY-MM') AS month,
    SUM(sales) AS total_revenue
FROM superstore_orders
GROUP BY month
ORDER BY total_revenue DESC
LIMIT 3;
```



- Result Table

