

# Inventory Optimization at T.T. Inc. Using Progress SQL

The screenshot shows the pgAdmin 4 interface with the following components:

- Object Explorer:** A tree view on the left showing the database structure. The 'SQL - T.T.T ICN.' database is selected, showing its various components like Casts, Catalogs, Event Triggers, Extensions, Foreign Data Wrappers, Languages, Publications, Schemas, Subscriptions, and the 'postgres' system database.
- Query Editor:** The central pane contains two SQL queries. The first query is a simple aggregation: 

```
select productid, sum(inventoryquantity) as total_unit_sold from sales group by productid order by total_unit_sold
```

. The second query is a more complex join: 

```
select p.productcategory, SUM(s.inventoryquantity) As sales_volume from sales s join product p on p.PRODUCTID = s.PRODUCTID where s.sales_year = '2021' and s.sales_month = '11'
```
- Data Output:** Below the queries, a table displays the results of the first query. It has two columns: 'productid' (numeric) and 'totalUnitSold' (bigint). The table contains 10 rows of data.
- Status Bar:** At the bottom, it indicates 'Total rows: 1375' and 'Query complete 00:00:00.249'. A notification on the right states: 'You are currently running version 8.14 of pgAdmin 4, however the current version is 9.0. Please click [here](#) for more information.'

This screenshot is identical to the one above, showing the same pgAdmin 4 interface with the same SQL queries and data table. The status bar at the bottom shows 'Total rows: 1375' and 'Query complete 00:00:00.249'. The notification on the right is also present.

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- Event Triggers
- Extensions
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- Subscriptions
- 10Analytics Northwind Database
- HR\_ANALYTICS
- MODULE\_3
  - Cast
  - Catalogs
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  - postgres
- Login/Group Roles

Dashboard x Properties x SQL x Statistics x Dependencies x Dependents x Processes x SQL T.T.T INC..sql\* x

SQL - T.T.T INC./postgres@PostgreSQL 17

Query Query History Scratch Pad x

```
9 select p.productcategory, SUM(s.inventoryquantity) As sales_volume
10 from sales s
11 join product p
12 on p.PRODUCTID = s.PRODUCTID
13 where s.sales_year = '2021' and s.sales_month = '11'
14 group by p.productcategory
15 order by sales_volume DESC
16
17
18 select s.sales_month, s.sales_year, Avg(f.inflationrate) as Avg_inflation,
19 Sum(s.inventoryquantity) as sales_volume
20 from sales s
21 join factors f
22 on f.salesdate = s.salesdate
```

Data Output Messages Notifications

Showing rows: 1 to 4 Page No: 1 of 1

	productcategory text	sales_volume bigint
1	Electronics	678
2	Laptops	481
3	SmartPhones	384
4	Home_Appliances	182

Total rows: 4 Query complete 00:00:00.185 CRLF Ln 9, Col 1

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

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Dashboard x Properties x SQL x Statistics x Dependencies x Dependents x Processes x SQL T.T.T INC..sql\* x

SQL - T.T.T INC./postgres@PostgreSQL 17

Query Query History Scratch Pad x

```
16
17
18 select s.sales_month, s.sales_year, Avg(f.inflationrate) as Avg_inflation,
19 Sum(s.inventoryquantity) as sales_volume
20 from sales s
21 join factors f
22 on f.salesdate = s.salesdate
23 group by sales_year, sales_month;
24
25
26 select s.sales_year, s.sales_month, Avg(f.inflationrate) as Avg_inflation,
27 Sum(s.inventoryquantity) as Total_Sales_Quantity
28 from sales s
29 join factors f
```

Data Output Messages Notifications

Showing rows: 1 to 60 Page No: 1 of 1

	sales_month integer	sales_year integer	avg_inflation numeric	sales_volume bigint
1	6	2022	2.8182456140350877	3020
2	8	2018	2.3917307692307692	2131
3	7	2022	2.5602272727272727	2589
4	11	2018	3.4128571428571429	1743
5	2	2020	3.2401538461538462	3432
6	12	2021	2.9658823529411765	2562
7	7	2019	3.2722727272727273	1874
8	10	2019	3.2540540540540541	1879
9	10	2022	2.8875000000000000	3649
10	6	2019	2.8865217391304348	1198

Total rows: 60 Query complete 00:00:00.170 CRLF Ln 18, Col 1

pgAdmin 4

File Object Tools Edit View Window Help

Object Explorer

- Catalogs
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  - Foreign Data Wrappers
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  - Casts
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- postgres
  - Login/Group Roles

Dashboard x Properties x SQL x Statistics x Dependencies x Dependents x Processes x SQL T.T.T INC..sql\* x

SQL - T.T.T ICN./postgres@PostgreSQL 17

Query Query History Scratch Pad x

```

34
35
36 select p.productcategory, round (Avg(s.inventoryquantity)) as Avg_Sales_Without
37 from sales s
38 join product p
39 on p.productid = s.productid
40 where promotions = 'No'
41 group by p.productcategory, p.promotions
42
43 union all
44
45 select p.productcategory, round (Avg(s.inventoryquantity)) as Avg_Sales_With_P
46 from sales s
  
```

Data Output Messages Notifications

Showing rows: 1 to 4 Page No: 1 of 1

	productcategory text	avg_sales_without_promotion numeric	promotions text
1	Home_Appliances	50	No
2	Electronics	54	No
3	SmartPhones	53	No
4	Laptops	51	No

Total rows: 4 Query complete 00:00:00.202 CRLF Ln 35, Col 1

pgAdmin 4

File Object Tools Edit View Window Help

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Dashboard x Properties x SQL x Statistics x Dependencies x Dependents x Processes x SQL T.T.T INC..sql\* x

SQL - T.T.T ICN./postgres@PostgreSQL 17

Query Query History Scratch Pad x

```

89 select p.productcategory, round (avg (s.inventoryquantity)) as Avg_Sales_Qty,
90 count (case when p.promotions = 'Yes' then 1 end) as promotion_count
91 from sales s
92 join product p on s.productid = p.productid
93 group by p.productcategory
94 order by Avg_Sales_Qty
95
96
97
98
99
100
101
  
```

Data Output Messages Notifications

Showing rows: 1 to 4 Page No: 1 of 1

	productcategory text	avg_sales_qty numeric	promotion_count bigint
1	Laptops	50	219
2	SmartPhones	51	212
3	Home_Appliances	52	220
4	Electronics	53	212

Total rows: 4 Query complete 00:00:00.160 CRLF Ln 87, Col 1

