

ecommerce/postgres@PostgreSQL 17* X

ecommerce/postgres@PostgreSQL 17

Query Query History

```
1 -- Creating Table
2 CREATE TABLE sales_data (
3     order_id TEXT,
4     order_date DATE,
5     ship_date DATE,
6     ship_mode TEXT,
7     customer_id TEXT,
8     customer_name TEXT,
9     segment TEXT,
10    country TEXT,
11    city TEXT,
12    state TEXT,
13    postal_code INTEGER,
14    region TEXT,
15    product_id TEXT,
16    category TEXT,
17    sub_category TEXT,
18    product_name TEXT,
19    sales NUMERIC,
20    profit NUMERIC
21 );
```

Data Output Messages Notifications

Showing rows: 1 to 908 Page No: 1 of 1

order_id	order_date	ship_date	ship_mode	customer_id	customer_name	segment	country	city	state	postal_code	region	product_id
CA-2018-1038...	2018-01-04	2018-01-08	Standard Class	DP-13000	Darren Powers	Consumer	United States	Houston	Texas	77095	Central	OFF-PA-10000
CA-2018-1123...	2018-01-05	2018-01-09	Standard Class	PO-19195	Phillina Ober	Home Office	United States	Naperville	Illinois	60540	Central	OFF-LA-10003
CA-2018-1418...	2018-01-06	[null]	Standard Class	MB-18085	Mick Brown	Consumer	United States	Philadelphia	Pennsylvania	19143	East	OFF-AR-10003
CA-2018-1308...	2018-01-07	2018-01-09	Second Class	LS-17730	Lunnie Saunders	Consumer	United States	Los Angeles	California	90049	West	OFF-PA-10002

Total rows: 908 Query complete 00:00:00.303 CRLF Ln 24, Col 1

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Query Query History

```
25
26 -- SELECT with WHERE and ORDER BY
27 SELECT customer_name, region, sales, profit
28 FROM sales_data
29 WHERE region = 'West'
30 ORDER BY sales DESC
31 LIMIT 10;
32
```

Data Output Messages Notifications

Showing rows: 1 to 10 Page No: 1 of 1

customer_name	region	sales	profit
Joseph Holt	West	2061.0	644.0
Arianne Irving	West	1680.0	126.0
Stefanie Holloman	West	1404.0	70.0
Tom Stivers	West	1368.0	260.0
Gary McGarr	West	1326.0	149.0
Brian Dahlen	West	1326.0	239.0
Roland Schwarz	West	1261.0	328.0
Eileen Kiefer	West	1198.0	70.0
Lena Creighton	West	1114.0	125.0
Brendan Sweed	West	1113.0	111.0

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Query Query History

```
-- Aggregate Analysis with GROUP BY
SELECT region, SUM(sales) AS total_sales, SUM(profit) AS total_profit
FROM sales_data
GROUP BY region
ORDER BY total_sales DESC;
```

-- Using JOINS

Data Output Messages Notifications

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

region	total_sales	total_profit
East	61265.0	9017.0
West	55777.0	7392.0
Central	41242.0	-5088.0
South	37042.0	7669.0

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Query Query History

```
-- Using JOINS
CREATE TABLE customers AS
SELECT DISTINCT customer_id, customer_name, segment, country, city, state, postal_code, region
FROM sales_data;

SELECT s.order_id, c.customer_name, s.sales
FROM sales_data s
INNER JOIN customers c ON s.customer_id = c.customer_id;
```

Data Output Messages Notifications

Showing rows: 1 to 1000 Page No: 1 of 2

order_id	customer_name	sales
CA-2018-103800	Darren Powers	16.0
CA-2018-103800	Darren Powers	16.0
CA-2018-112326	Phillina Ober	12.0
CA-2018-141817	Mick Brown	20.0
CA-2018-130813	Lycoris Saunders	19.0
CA-2018-106054	Jack O'Briant	13.0
CA-2018-106054	Jack O'Briant	13.0
CA-2018-106054	Jack O'Briant	13.0
CA-2018-106054	Jack O'Briant	13.0
CA-2018-167199	Maria Etezadi	2574.0
CA-2018-105417	Vivek Sundaresam	77.0
CA-2018-135405	Melanie Seite	9.0
CA-2018-149020	Anthony Jacobs	3.0

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Query Query History

```
49 -- Subquery: Top-Selling Category
50 SELECT category, SUM(sales) AS total_sales
51 FROM sales_data
52 GROUP BY category
53 HAVING SUM(sales) = (
54     SELECT MAX(total)
55     FROM (
56         SELECT SUM(sales) AS total FROM sales_data GROUP BY category
57     ) AS totals
58 );
```

Data Output Messages Notifications

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

	category	total_sales
	text	numeric
1	Furniture	66545.0

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Query Query History

```
58 );
59
60
61 -- Creating a View for Repeated Analysis
62 CREATE VIEW regional_sales_summary AS
63 SELECT region, SUM(sales) AS total_sales, SUM(profit) AS total_profit
64 FROM sales_data
65 GROUP BY region;
66 SELECT * FROM regional_sales_summary;
67
```

Data Output Messages Notifications

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

	region	total_sales	total_profit
	text	numeric	numeric
1	South	37042.0	7669.0
2	West	55777.0	7392.0
3	East	61265.0	9017.0
4	Central	41242.0	-5088.0

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Query

Query History

66

SELECT * FROM regional_sales_summary;

67

68

-- Indexing for Optimization

69

CREATE INDEX idx_region ON sales_data(region);

70

CREATE INDEX idx_order_date ON sales_data(order_date);

71

72

SELECT *

73

FROM pg_indexes

74

WHERE tablename = 'sales_data';

75

Data Output

Messages

Notifications

Showing rows: 1 to 2

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	schemaname name	tablename name	indexname name	tablespace name	indexdef text
1	public	sales_data	idx_region	[null]	CREATE INDEX idx_region ON public.sales_data USING btree (region)
2	public	sales_data	idx_order_date	[null]	CREATE INDEX idx_order_date ON public.sales_data USING btree (order_date)