

**MINI PROJECT**

**PROBLEM SOLVING**

**WITH SQL**

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# BUSINESS CONTEXT

Manajemen PT X ingin **brief eksekutif tahun berjalan (YTD)** untuk menutup kuartal dengan strategi yang tepat. Mereka butuh melihat **momentum penjualan bulanan**, lalu mengecek **kualitas pengiriman** (SLA) agar keluhan tidak meningkat. Setelah itu, mereka ingin fokus pada **produk** yang benar-benar menyumbang pendapatan, menilai **performa per sales**, dan terakhir memahami porsi **pelanggan baru vs loyal** agar keputusan marketing & retensi lebih tajam.

# T1 MONTHLY PERFORMANCE

- **Tujuan bisnis:** Amati momentum penjualan bulanan.
- **Pertanyaan:** Tampilkan **Jumlah order, total revenue, dan avg order value per bulan** (di tahun 2025).

Results 1

WITH order\_totals AS ( SELECT o.order\_id, D | SELECT o.order\_id, D Enter a SQL expression to filter results (use Ctrl+Space)

Grid	O	month	total_orders	revenue	avg_order_value
Text	1	2025-01-01 00:00:00.000 +0700	35	62,272.4947922698	1,779.214136922
Text	2	2025-02-01 00:00:00.000 +0700	33	47,409.5773145168	1,436.6538580157
Text	3	2025-03-01 00:00:00.000 +0700	37	64,985.5583423071	1,756.366441684
Text	4	2025-04-01 00:00:00.000 +0700	35	41,732.0697449024	1,192.3448498544
Text	5	2025-05-01 00:00:00.000 +0700	41	62,938.3463614457	1,535.0816185718
Text	6	2025-06-01 00:00:00.000 +0700	52	85,037.1372897361	1,635.3295632642
Text	7	2025-07-01 00:00:00.000 +0700	55	98,377.3088113538	1,788.6783420246
Text	8	2025-08-01 00:00:00.000 +0700	74	101,278.7498765206	1,368.6317550881
Text	9	2025-09-01 00:00:00.000 +0700	67	138,957.3424006869	2,073.9901850849
Text	10	2025-10-01 00:00:00.000 +0700	44	50,066.1054110523	1,137.8660320694

# T2 SHIPPER SLA (YTD)

- **Tujuan bisnis:** Evaluasi kurir (SLA).
- **Pertanyaan:** Untuk order **yang sudah dikirim** (YTD), tampilkan per kurir: **shipped\_orders, late\_orders** (**shipped\_date > required\_date**), dan **late\_rate\_%**.

shippers 1 X

SELECT s.company\_name, COUNT(DISTINCT

Enter a SQL expression to filter results (use Ctrl+Space)

	A-Z company_name	123 shipped_orders	123 late_orders	123 late_rate_percent
1	Speedy Express	142	8	5.63
2	United Package	178	9	5.06
3	Federal Shipping	132	2	1.52

# T3 – TOP 10 PRODUCTS BY REVENUE (YTD)

- **Tujuan bisnis:** Fokus ke produk penyumbang pendapatan.
- **Pertanyaan:** Tampilkan **10 produk** ber-revenue tertinggi (YTD) beserta **nama kategori** dan **price\_range** (<10, 10–20, 20–50, >50).

products(+) 1 X

WITH product\_revenue AS ( SELECT od.product\_id AS product\_id, od.quantity AS quantity, od.unit\_price AS unit\_price, od.discount AS discount, od.order\_id AS order\_id, od.line\_id AS line\_id, od.shipped\_date AS shipped\_date, od.ship\_via AS ship\_via, od.freight AS freight, od.postal\_code AS postal\_code, od.city AS city, od.region AS region, od.country AS country, od.product\_name AS product\_name, od.category\_name AS category\_name, od.revenue AS revenue, od.price\_range AS price\_range FROM order\_details od )

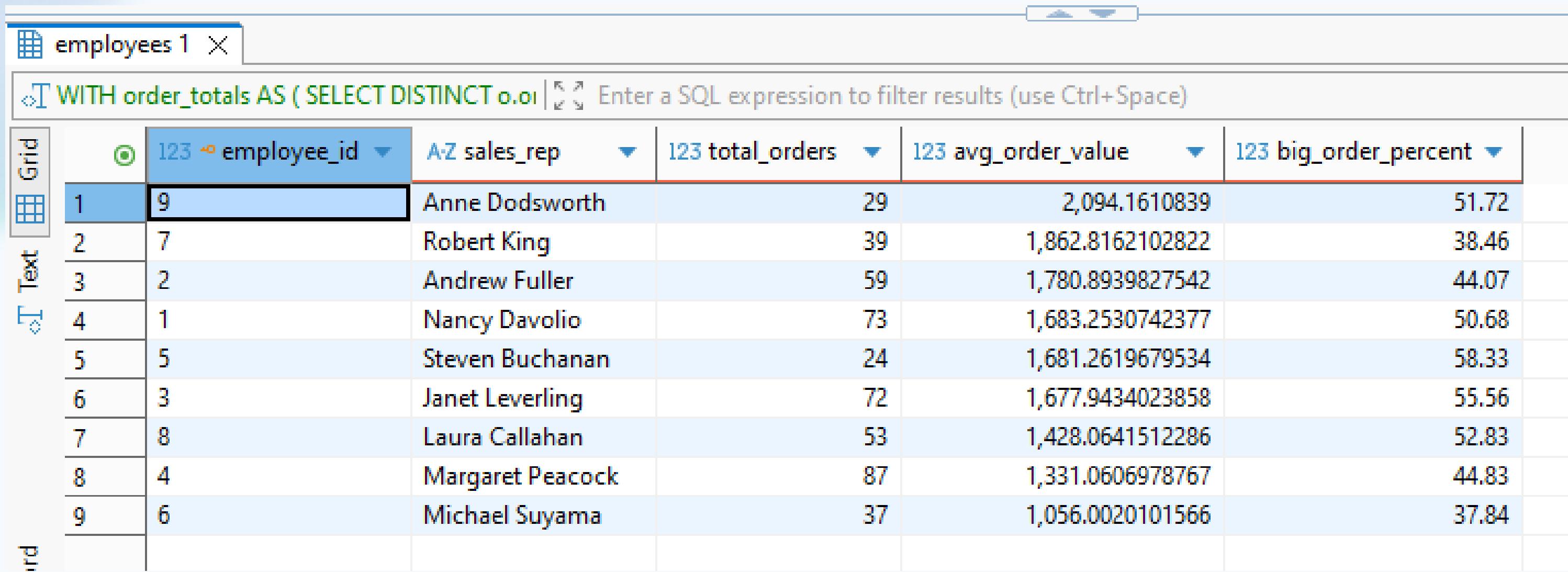
Enter a SQL expression to filter results (use Ctrl+Space)

Grid	① A-Z product_name	A-Z category_name	123 revenue	A-Z price_range
1	Côte de Blaye	Beverages	78,588.8749734964	> 50
2	Thüringer Rostbratwurst	Meat/Poultry	57,042.4324168945	> 50
3	Raclette Courdavault	Dairy Products	43,625.9999589808	> 50
4	Camembert Pierrot	Dairy Products	29,934.6199851707	20-50
5	Tarte au sucre	Confections	28,256.2945196721	20-50
6	Manjimup Dried Apples	Produce	26,513.2499919049	> 50
7	Gnocchi di nonna Alice	Grains/Cereals	22,877.8999790773	20-50
8	Alice Mutton	Meat/Poultry	19,055.3999907598	20-50
9	Carnarvon Tigers	Seafood	18,584.3749884516	> 50
10	Uncle Bob's Organic Dried Pears	Produce	18,532.4999977648	20-50

# T4

# — SALES REP SCORECARD (YTD)

- **Tujuan bisnis:** Ringkas performa per sales rep.
- **Pertanyaan:** Per **karyawan** tampilkan **jumlah order, avg order value, dan % order besar** (`order_total > 1000`).



The screenshot shows a database interface with a grid displaying sales rep performance data. The grid has columns for employee\_id, sales\_rep, total\_orders, avg\_order\_value, and big\_order\_percent. The data is as follows:

Grid	employee_id	sales_rep	total_orders	avg_order_value	big_order_percent
1	9	Anne Dodsworth	29	2,094.1610839	51.72
2	7	Robert King	39	1,862.8162102822	38.46
3	2	Andrew Fuller	59	1,780.8939827542	44.07
4	1	Nancy Davolio	73	1,683.2530742377	50.68
5	5	Steven Buchanan	24	1,681.2619679534	58.33
6	3	Janet Leverling	72	1,677.9434023858	55.56
7	8	Laura Callahan	53	1,428.0641512286	52.83
8	4	Margaret Peacock	87	1,331.0606978767	44.83
9	6	Michael Suyama	37	1,056.0020101566	37.84

# T5 — NEW VS LOYAL CUSTOMERS (YTD)

- **Tujuan bisnis:** Pahami peran akuisisi vs retensi.
- **Pertanyaan:** Segmentasi order YTD ke **NEW** (first order customer di tahun ini) vs **LOYAL** (first order sebelum tahun ini). Tampilkan **orders** dan **revenue**.

Results 1 X

WITH first\_order AS ( SELECT customer\_id, MIN(order\_date) AS first\_order FROM orders GROUP BY customer\_id )

Enter a SQL expression to filter results

Grid	A-Z segment	123 orders	123 revenue
1	LOYAL	446	736,085.5403413656
2	NEW	27	16,969.1500034258

thank you!