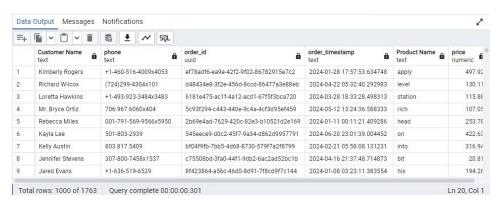# ByteWise Data Engineering

Task 06

Question 1

Write a query to retrieve all orders placed by customers, including customer details (name, phone), order details (order ID, timestamp), and item details (product, amount).

SELECT customers.name AS "Customer Name",

customers.phone, orders.order_id, orders.order_timestamp,

products.name AS "Product Name", products.price

FROM task4_schema.customers

LEFT JOIN task4_schema.orders ON customers.customer_id = orders.customer_id

LEFT JOIN task4_schema.items ON orders.order_id = items.order_id

LEFT JOIN task4_schema.products ON items.product_id = products.product_id

	Customer Name text	phone text	order_id uuid	order_timestamp text	Product Name text	price numeric
1	Kimberly Rogers	+1-460-516-4009x4053	ef78adf6-ea9e-42f2-9f02-86782915e7c2	2024-01-28 17:57:53.634748	apply	497.92
2	Richard Wilcox	(724)299-4304x101	d48434e8-3f2e-456d-8ccd-86477a3e88eb	2024-04-22 05:32:40.292983	level	130.11
3	Loretta Hawkins	+1-493-923-3484x3483	6181e475-ac1f-4a12-acd1-67f5f3bca720	2024-03-28 18:33:28.498313	station	115.88
4	Mr. Bryce Ortiz	706.967.6060x404	5c93f294-c443-440e-9c4a-4cf3d95ef459	2024-05-12 13:24:36.588333	rich	107.05
5	Rebecca Miles	001-791-569-9566x5950	2b69e4ad-7629-420c-82e3-b10521d2e169	2024-01-11 00:11:21.409286	head	253.78
6	Kayla Lee	501-803-2939	545eece9-d0c2-45f7-9a34-d862d9957791	2024-06-20 23:01:39.004452	on	422.63
7	Kelly Austin	803.817.5409	bf04f9fb-7bb5-4d68-8730-579f7a2f8799	2024-02-21 05:58:08.131231	into	316.94
8	Jennifer Stevens	307-800-7458x1537	c75508bd-3fa0-44f1-9db2-6ac2ad52bc1b	2024-04-16 21:37:48.714873	bit	20.81
9	Jared Evans	+1-636-519-6529	8f423864-a56c-46d0-8d91-7f8cd9f7c144	2024-01-08 03:23:11.383554	his	194.26

Data Output   Messages   Notifications

Total rows: 1000 of 1763   Query complete 00:00:00.301   Ln 20, Col 1

Question 2:

Write a query to fetch all products along with their suppliers' details (name, phone) and the corresponding category name.

SELECT products.name AS "Product Name",

      suppliers.name AS "Supplier Name",

      suppliers.phone AS "Supplier Contact",

      suppliers.category AS "Supplier Category"

FROM task4_schema.products

LEFT JOIN task4_schema.suppliers

      ON products.supplier_id = suppliers.supplier_id

	Product Name text	Supplier Name text	Supplier Contact text	Supplier Category text
1	talk	Turner, Newman and Rodriguez	001-650-863-5785x75794	accept
2	letter	Hall, Garcia and Wiggins	888-551-8790x931	decision
3	decade	Acosta-Freeman	+1-949-497-5202	participant
4	major	Reed, Gonzalez and Moore	+1-999-431-0825	common
5	various	Alvarado-Cannon	6822144562	participant
6	security	Hill PLC	(534)558-4604x4870	offer
7	cost	Smith, Burton and Smith	389-455-1435	difference
8	we	Walker, Graham and Hernandez	001-978-752-3677	something
9	themselves	Delacruz, Cummings and Silva	470.752.0877x6294	space

Total rows: 1000 of 1000   Query complete 00:00:00.153

Question 3

Write a query to retrieve details of all orders including the product name and amount ordered for each item.
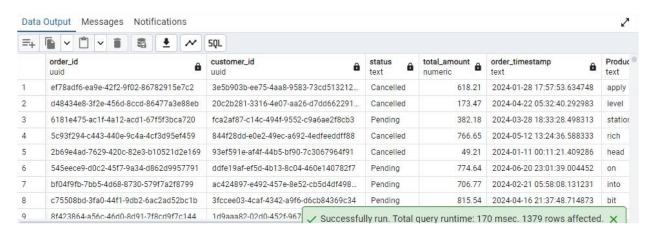
SELECT orders.*,

    products.name AS "Product Name",

    items.amount AS "Item Amount"

FROM task4_schema.orders

LEFT JOIN task4_schema.items ON orders.order_id = items.order_id

LEFT JOIN task4_schema.products ON items.product_id = products.product_id

Data Output   Messages   Notifications

	order_id uuid	customer_id uuid	status text	total_amount numeric	order_timestamp text	Produc text
1	ef78adf6-ea9e-42f2-9f02-86782915e7c2	3e5b903b-ee75-4aa8-9583-73cd513212...	Cancelled	618.21	2024-01-28 17:57:53.634748	apply
2	d48434e8-3f2e-456d-8ccd-86477a3e88eb	20c2b281-3316-4e07-aa26-d7dd662291...	Cancelled	173.47	2024-04-22 05:32:40.292983	level
3	6181e475-ac1f-4a12-acd1-67f5f3bca720	fca2af87-c14c-494f-9552-c9a6ae2f8cb3	Pending	382.18	2024-03-28 18:33:28.498313	statior
4	5c93f294-c443-440e-9c4a-4cf3d95ef459	844f28dd-e0e2-49ec-a692-4edfeeddff88	Cancelled	766.65	2024-05-12 13:24:36.588333	rich
5	2b69e4ad-7629-420c-82e3-b10521d2e169	93ef591e-af4f-44b5-bf90-7c3067964f91	Cancelled	49.21	2024-01-11 00:11:21.409286	head
6	545eece9-d0c2-45f7-9a34-d862d9957791	ddfe19af-ef5d-4b13-8c04-460e140782f7	Pending	774.64	2024-06-20 23:01:39.004452	on
7	bf04f9fb-7bb5-4d68-8730-579f7a2f8799	ac424897-e492-457e-8e52-cb5d4df498...	Pending	706.77	2024-02-21 05:58:08.131231	into
8	c75508bd-3fa0-44f1-9db2-6ac2ad52bc1b	3fccee03-4caf-4342-a9f6-d6cb84369c34	Pending	815.54	2024-04-16 21:37:48.714873	bit
9	8f423864-a56c-46d0-8d91-7f8cd9f7c144	1d9aaa82-02d0-452f-967				

✓ Successfully run. Total query runtime: 170 msec. 1379 rows affected. ✕

Question 4

Write a query to retrieve all suppliers along with the city and country where they are located, and the products they supply.

SELECT

    suppliers.supplier_id,

    suppliers.name AS "Supplier Name",

    suppliers.location AS "Location",

  products.name AS "Product Name"

    FROM task4_schema.suppliers

LEFT JOIN task4_schema.products ON suppliers.supplier_id = products.supplier_id

	supplier_id uuid	Supplier Name text	Location text	Product Name text
1	2004d50c-047f-4b83-89ff-c5ab5a4926...	Turner, Newman and Rodriguez	Robbinsville	talk
2	063f7075-f3c0-4408-8410-e1e955f7aff5	Hall, Garcia and Wiggins	Lake Michael	letter
3	54a4ddca-f621-418d-9033-755f40ab53...	Acosta-Freeman	North Amymouth	decade
4	5a87e32a-59bd-4a4d-8b3c-34122da4a...	Reed, Gonzalez and Moore	Port Pedrochester	major
5	0f8e1204-4772-41f7-96e5-debdcad539...	Alvarado-Cannon	Brownborough	various
6	46d790af-c06c-45e8-aaa8-74ce68ee37...	Hill PLC	New Douglas	security
7	41c38ba2-d77c-4fc6-b57c-1c01401c2a...	Smith, Burton and Smith	South Robert	cost
8	cb02444f-0889-426e-ac49-6d20e2f381...	Walker, Graham and Hernandez	North Ashleyland	we
9	4dde0f6d-c25d-4245-82c8-137efad4fcaa	Delacruz, Cummings and Silva	Ryanview	themselves

Question 5

Write a query to fetch details of the most recent order (by timestamp) placed by each customer, including the product details for each item in the order. [This question will use a Window Function alongside Joins]

SELECT * FROM

    (SELECT

    customers.customer_id, orders.order_id,orders.order_timestamp,

    ROW_NUMBER() OVER (PARTITION BY customers.customer_id ORDER BY orders.order_timestamp DESC) AS row_num

FROM task4_schema.orders

LEFT JOIN task4_schema.customers ON orders.customer_id = customers.customer_id

LEFT JOIN task4_schema.items ON orders.order_id = items.order_id

) Main

WHERE row_num = 1

	customer_id uuid	order_id uuid	order_timestamp text	row_num bigint
1	003ee86f-4e17-4b39-bb6a-30897fe0a1...	a2f7c3af-4f45-413a-951a-aaf4a8f35c95	2024-01-10 06:44:13.338774	1
2	00d40438-5bf3-4f1b-aaa9-32130a7cd6...	e8e664fb-189a-48f6-8815-9075fc391b83	2024-01-08 09:50:41.540522	1
3	01624052-d9dc-4150-bd53-255b82ce6...	df8c9be5-054e-462f-8d10-0a1f906f72d4	2024-06-09 08:10:35.436653	1
4	017058e3-3c0b-4f2f-a359-06cba4a8b5ff	0b346353-a7af-471c-bd6d-46a2d07f2d...	2024-04-26 16:03:42.737342	1
5	01e21aec-f14b-4290-b2c5-365415aa91...	8327ea9e-8830-4a6b-81f0-64ab25c6bd...	2024-05-24 18:05:25.595409	1
6	02330f3a-f0ff-48b8-93a2-708dac55911c	0a99496a-9f49-4b9e-8859-f644a7d621...	2024-03-28 23:53:33.353735	1
7	0342d88c-2518-424b-9c52-65bd1c623...	f8969532-55d2-44e3-92f3-d67418ee15...	2024-05-17 20:45:34.132086	1
8	0367e393-082e-4db3-bea7-b8f222184f...	aded0df5-801e-4810-9ad1-15185808a4...	2024-04-07 05:47:25.879270	1
9	04fabd69-1813-4b77-bafc-6bcc02ecaed6	3a87b3a8-1d97-4b95-9dd9-e13e313cd9...	2024-04-05 04:42:38.836337	1