

```
-- Fetch first 10 rows from customers table
SELECT *
FROM customers
LIMIT 10;
```

	customer_id	customer_unique_id	customer_zip_code_prefix	customer_city	customer_state
1	06b8999e2fba1a1fb88172c00ba8bc7	861eff4711a542e4b93843c6dd7febb0	14409	franca	SP
2	18955e83d337fd6b2def6b18a428ac77	290c77bc529b7ac935b93aa66c333dc3	9790	sao bernardo do campo	SP
3	4e7b3e0028858e6bd08712ff0d374a03	060e732b5b29e8181a18229c7b0b2b5e	1151	sao paulo	SP
4	b2b6027bc5c5109e529d4dc6358b12c3	259dac757896d24d7702b9acbf3f3c	8775	mogi das cruzes	SP
5	4f2d8ab171c80ec8364fc12e5b23ad	345ecd01c38d18a9036ed96c73b8d066	13056	campinas	SP
6	879864dab9bc3047522c92c82e1212b8	4c93744516667ad3b8f1fb645a3116a4	89254	jaragua do sul	SC
7	fd826e7cf63160e536e0908c7e3c3f441	addec96d2e059c80c30fe6871d30d177	4534	sao paulo	SP
8	5e274e7a0c3809e14aba7ad5aae0d407	57b2a98a409812fe9618067b6b8ebe4f	35182	timoteo	MG
9	Sad08e34b2e993982a47070956c5c65	1175e95fb47dff9de6b2b06188f7e0d	81560	curitiba	PR
10	4b7139f34592b3a31687243a302fa75b	9afe194fb833f79e300e37e580171f22	30575	belo horizonte	MG

```
-- Find orders that arrived after the estimated delivery date
SELECT order_id, customer_id, order_delivered_customer_date,
       order_estimated_delivery_date
WHERE order_delivered_customer_date > order_estimated_delivery_date
ORDER BY order_delivered_customer_date DESC;
```

	order_id	customer_id	order_delivered_customer_date	order_estimated_delivery_date
1	7e708aed151d6a8601ce8f2eaa712bf4	033fab69968b0d69099d64423831a236	2018-10-17 13:22:46	2018-07-13 00:00:00
2	450cb96c63e1e5b49d34f223f67976d2	27ae7c9a8fc20ce80d96f01b6f19961b	2018-10-11 16:41:14	2018-06-27 00:00:00
3	b299te1d7061605e9285496c581d1fb4	9e83d47684eb1a58b1c31830f5da10ac	2018-10-02 00:18:50	2018-08-14 00:00:00
4	a2b4be96b53022618030c17ed437604d	ffa87b246c848711af8512b51f161	2018-09-27 02:24:33	2018-08-17 00:00:00
5	7d09831e67caa193da82cfea3bee7a5	1409b2945191b7aff1975ba2ce9918c5	2018-09-25 00:47:25	2018-08-20 00:00:00
6	f23681a0ffffdb8051c674707c7e912ef	7930549f156ea2b01b0fc2fd323063	2018-09-21 23:46:29	2018-08-06 00:00:00
7	1e7d25f611e794f9614dd3e10a8596e7	8be45a1114ff0e79615f7b8189aec7df	2018-09-21 15:55:02	2018-08-23 00:00:00
8	4af2fb154881f350d8696f7f7a7f80d3	7c71fa0871e272a25eccac52af90595	2018-09-20 16:08:33	2018-08-13 00:00:00
9	1b3190b2dfa9d789e1f14c05b647a14a	d306426abe5fca15e54b645e4462dc7b	2018-09-19 23:24:07	2018-03-15 00:00:00
10	4505a5ch3759da6h9c7d79a80d29sh3hh	135878haa339h45240h5a327a93350qh	2018-09-19 16:44:44	2018-08-17 00:00:00

```
Execution finished without errors.
Result: 7827 rows returned in 162ms
At line 1:
-- Find orders that arrived after the estimated delivery date
SELECT order_id, customer_id, order_delivered_customer_date, order_estimated_delivery_date
FROM orders
WHERE order_delivered_customer_date > order_estimated_delivery_date
ORDER BY order_delivered_customer_date DESC;
```

```
-- Calculate total revenue (price + freight) by each seller
SELECT oi.seller_id,
       SUM(oi.price + oi.freight_value) AS total_revenue
FROM order_items AS oi
GROUP BY oi.seller_id
ORDER BY total_revenue DESC;
```

	seller_id	total_revenue
1	4869f7a5dfa277a7dca6462dcf3b52b2	249640.7
2	7c67e1448b00f6e969d365cea6b010ab	239536.44
3	53243585a1d6dc2643021fd1853d8905	235056.68
4	4a3ca9315b744ce9f8e9374361493884	235539.96
5	fa1c13f2614d7b5c4749cbc52fecda94	204084.73
6	da8622b14eb17ae2831f4ac5b9dab84a	185192.32
7	7e93a43ef30c4f03f38b393420bc753a	182754.05
8	1025f0e2d44d7041d6cf58b6550e0bfa	172860.69
9	7a67c85e85bb2ce8582c35f2203ad736	162648.38
10	955faa0216a65h617a5c5c0531780ca60	160602.68

```
Execution finished without errors.
Result: 3095 rows returned in 302ms
At line 1:
-- Calculate total revenue (price + freight) by each seller
SELECT oi.seller_id,
       SUM(oi.price + oi.freight_value) AS total_revenue
FROM order_items AS oi
GROUP BY oi.seller_id
ORDER BY total_revenue DESC;
```

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```
-- Show order payment details
SELECT o.order_id,
       o.order_status,
       op.payment_type,
       op.payment_value
  FROM orders o
 INNER JOIN order_payments op ON o.order_id = op.order_id
 LIMIT 20;
```

	order_id	order_status	payment_type	payment_value
1	e481f51cbdc54678b7cc49136f2d6af7	delivered	credit_card	18.12
2	e481f51cbdc54678b7cc49136f2d6af7	delivered	voucher	2.0
3	e481f51cbdc54678b7cc49136f2d6af7	delivered	voucher	18.59
4	53cdb2fc8bc7dce0b6741e2150273451	delivered	boleto	141.46
5	47770eb9100c2d0c44946d9cf07ec65d	delivered	credit_card	179.12
6	949d5b44dbf5de918fe9c16f97b45f8a	delivered	credit_card	72.2
7	ad21c59c0840e6cb83a9ceb5573f8159	delivered	credit_card	28.62
8	a4591c265e18cb1dcee52889e2d8acc3	delivered	credit_card	175.26
9	136cce7faa42fdb2cefd53fdc79a6098	invoiced	credit_card	65.95
10	6514b8ad8028c9f2cc2374ded245783f	delivered	credit_card	75.16
11	76c6e866289321a7c93b82b54852dc33	delivered	boleto	35.95
12	e69bfb5eb88e0ed6a785585b27e16dbf	delivered	credit_card	8.34
13	e69bfb5eb88e0ed6a785585b27e16dbf	delivered	voucher	161.42
14	e6ce16cb79ec1d90b1da9085a6118aeb	delivered	credit_card	259.06
15	34513ce0c4fab462a55830c0989c7edb	delivered	credit_card	114.13
16	82566a660a982b15fb86e904c8d32918	delivered	boleto	50.13
17	5ff96c15d0b717ac6ad1f3d77225a350	delivered	credit_card	32.7
18	432aaaf21d85167c2c86ec9448c4e42cc	delivered	credit_card	54.36
19	dcbb36b511fcac050b97cd5c05de84dc3	delivered	credit_card	146.45
20	403b97836b0c04a622354cf531062e5f	delivered	credit_card	1376.45

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```
-- Find customers who have never placed an order
SELECT c.customer_id, c.customer_city, c.customer_state
  FROM customers c
 LEFT JOIN orders o ON c.customer_id = o.customer_id
 WHERE o.order_id IS NULL;
```

customer_id	customer_city	customer_state
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```
-- Top 5 products by quantity sold
SELECT product_id,
       SUM(order_item_id) AS total_quantity
FROM order_items
GROUP BY product_id
ORDER BY total_quantity DESC
LIMIT 5;
```

	product_id	total_quantity
1	422879e10f46682990de24d770e7f83d	793
2	aca2eb7d00ea1a7b8ebd4e68314663af	640
3	368c6c730842d78016ad823897a372db	551
4	53759a2ecddad2bb87a079a1f1519f73	545
5	99a4788cb24856965c36a24e339b6058	542

```
-- Orders whose payment value is higher than average payment value
SELECT order_id, payment_value
FROM order_payments
WHERE payment_value > (
    SELECT AVG(payment_value)
    FROM order_payments
);
```

	order_id	payment_value
1	1f78449c87a54faf9e96e88ba1491fa9	341.09
2	d88e0d5fa41661ce03cf6cf336527646	188.73
3	12e5cfe0e4716b59afb0e0f4a3bd6570	157.45
4	8ac09207f415d55acff302df7d6a895c	244.15
5	4214cda550ece8ee66441f459dc33a8c	170.57
6	4d680edbba7d3d9bed69532957368a03	353.09

Execution finished without errors.
Result: 31012 rows returned in 152ms

```

-- Create view to analyze order revenue
CREATE VIEW order_revenue_view AS
SELECT o.order_id,
       o.customer_id,
       SUM(oi.price + oi.freight_value) AS revenue,
       SUM(op.payment_value) AS customer_paid
  FROM orders o
 JOIN order_items oi ON o.order_id = oi.order_id
 JOIN order_payments op ON o.order_id = op.order_id
 GROUP BY o.order_id;

SELECT *
  FROM order_revenue_view
 LIMIT 10;

```

	order_id	customer_id	revenue	customer_paid
1	00010242fe8c5a6d1ba2dd792cb16214	3ce436f183e68e07877b285a838db11a	72.19	72.19
2	00018f77f2f0320c557190d7a144bdd3	f6dd3ec061db4e3987629fe6b26e5cce	259.83	259.83
3	000229ec398224ef6ca0657da4fc703e	6489ae5e4333f3693df5ad4372dab6d3	216.87	216.87
4	00024acbcdf0a6da1e931b038114c75	d4eb9395c8c0431ee92fce09860c5a06	25.78	25.78
5	00042b26cf59d7ce69dfabb4e55b4fd9	58dbd0b2d70206bf40e62cd34e84d795	218.04	218.04
6	00048cc3ae777c65dbb7d2a0634bc1ea	816cbea969fe5b689b39cf97a506742	34.59	34.59
7	00054e8431b9d7675808bcb819fb4a32	32e2e6ab09e778d99bf2e0ecd4898718	31.75	31.75
8	000576fe39319847cbb9d288c5617fa6	9ed5e522dd9dd85b4af4a077526d8117	880.75	880.75
9	0005a1a1728c9d785b8e2b08b904576c	16150771dfd4776261284213b89c304e	157.6	157.6
10	0005f50442cb953dcd1d21e1fb923495	351d3cb2cee3c7fd0af6616c82df21d3	65.39	65.39

```

-- Count of each payment type
SELECT payment_type, COUNT(*) AS total
  FROM order_payments
 GROUP BY payment_type
 ORDER BY total DESC;

```

	payment_type	total
1	credit_card	76795
2	boleto	19784
3	voucher	5775
4	debit_card	1529
5	not_defined	3



```
-- Customer distribution across cities
SELECT customer_city, COUNT(*) AS no_of_customers
FROM customers
GROUP BY customer_city
ORDER BY no_of_customers DESC
LIMIT 10;
```

	customer_city	no_of_customers
1	sao paulo	15540
2	rio de janeiro	6882
3	belo horizonte	2773
4	brasilia	2131
5	curitiba	1521
6	campinas	1444
7	porto alegre	1379
8	salvador	1245
9	guarulhos	1189
10	sao bernardo do campo	938



```
-- Revenue per month
SELECT
    strftime('%Y-%m', o.order_purchase_timestamp) AS month,
    SUM(oi.price + oi.freight_value) AS total_revenue
FROM orders o
JOIN order_items oi ON o.order_id = oi.order_id
GROUP BY month
ORDER BY month;
```

	month	total_revenue
1	2016-09	354.75
2	2016-10	56808.84
3	2016-12	19.62
4	2017-01	137188.49
5	2017-02	286280.62
6	2017-03	432048.59
7	2017-04	412422.24
8	2017-05	586190.95
9	2017-06	502963.04
10	2017-07	584971.62
11	2017-08	668204.6
12	2017-09	720398.91
13	2017-10	769312.37
14	2017-11	1179143.77
15	2017-12	863547.23
16	2018-01	1107301.89
17	2018-02	986908.96
18	2018-03	1155126.82
19	2018-04	1159698.04
20	2018-05	1149781.82

