

Q1-How many rows of data are stored for each table in the database? List the name of each table followed by the number of rows it has.

Ans-select *
from category;
-- Ashwin

```
1 • select *
2   from category;
3   -- Ashwin
4
```

category_id	category_name
2	Soccer
3	Baseball & Softball
4	Basketball
5	Lacrosse
6	Tennis & Racquet
7	Hockey
9	Cardio Equipment
10	Strength Training
11	Fitness Accessories
12	Boxing & MMA
68	Garden
69	Health and Beauty
70	Mens Clothing
71	Music
72	Pet Supplies
73	Sporting Goods
74	Toys
75	Video Games
76	Womens Clothing
NULL	NULL

select *
from customer;
-- Ashwin

customer_id	city	first_name	last_name	segment	state	street	zipcode
1	Brownsville	Richard	Hernandez	CONSUMER	TX	6303 Heather Plaza	78521
8	Lawrence	Megan	Smith	CORPORATE	MA	3047 Foggy Forest Plaza	01841
16	Caguas	Tiffany	Smith	CORPORATE	PR	6651 Iron Port	00725
17	Taylor	Mary	Robinson	CONSUMER	MI	1325 Noble Pike	48180
20	West New York	Mary	Ellis	CONSUMER	NJ	4703 Old Route	07093
24	Caguas	Mary	Smith	HOME_OFFICE	PR	9417 Emerald Towers	00725
27	Caguas	Mary	Vincent	CONSUMER	PR	1768 Sleepy Zephyr Place	00725
31	Albuquerque	Mary	Byrd	CONSUMER	NM	8259 Foggy Edge	87111
33	Norfolk	Adam	Petersen	CONSUMER	VA	9768 Noble Horse Heights	23503
37	Norfolk	Virginia	Conrad	CONSUMER	VA	6115 Indian Beacon Close	23503

#	Time	Action	Message
169	21:10:48	select * from category LIMIT 0, 100	51 row(s) returned
170	21:11:46	select * from customer LIMIT 0, 100	100 row(s) returned

```
select *  
from department;  
-- Ashwin
```

The screenshot shows a database query tool interface. At the top, there's a tab labeled "Query 1" and "TerpBuy (1)". Below the tab is a toolbar with various icons. The main area displays a SQL query:

```
1 • select *  
2   from department;  
3   -- Ashwin  
4  
5  
6
```

Below the query editor is a "Result Grid" section. It has a toolbar with "Filter Rows:", "Edit:", "Export/Import:", and "Wrap Cell Conte". The grid shows the following data:

	department_id	department_name
▶	1	Indoors
	2	Fitness
	3	Footwear
	4	Apparel
	5	Golf
	6	Outdoors
	7	Fan Shop
	8	Book Shop
	9	Discs Shop
	10	Technology

Below the result grid is an "Output" section with a dropdown menu set to "Action Output". It displays a log of actions:

#	Time	Action	Message
✓ 170	21:11:46	select * from customer LIMIT 0, 100	100 row(s) returned
✓ 171	21:12:41	select * from department LIMIT 0, 100	12 row(s) returned

```
select *  
from order_line;  
-- Ashwin
```

Query 1 x TerpBuy (1)

Limit to 100 rows

```

1 • select *
2   from order_line;
3   -- Ashwin
4
5
6
7

```

Result Grid

	order_line_id	order_id	product_id	quantity_sold	total_price
▶	50787	20337	1004	1	399.98
	50788	20338	502	2	100.00
	50789	20338	191	4	399.96
	50790	20338	365	4	239.96
	50791	20338	365	2	119.98
	50800	20346	1004	1	399.98
	50801	20346	502	3	150.00
	50836	20361	365	1	59.99
	50837	20363	627	4	159.96
	50838	20363	403	1	129.99

order_line 85 x

Output

Action Output

#	Time	Action	Message
✓ 171	21:12:41	select * from department LIMIT 0, 100	12 row(s) returned
✓ 172	21:13:22	select * from order_line LIMIT 0, 100	100 row(s) returned

```

select *
from orders;
-- Ashwin

```

Query 1 x TerpBuy (1)

Limit to 100 rows

```

1 • select *
2   from orders;
3   -- Ashwin
4
5
6
7
8

```

Result Grid

order_id	payment_type	actual_shipping_days	scheduled_shipping_days	customer_id	order_city	order_date	order_region	order_state	order_status	shipping
20337	DEBIT	3	4	8838	Kolhapur	2018-10-23	South Asia	Maharashtra	ON_HOLD	Standard
20338	INVOICE	4	4	5231	Kolhapur	2018-10-23	South Asia	Maharashtra	PENDING_PAYMENT	Standard
20346	DEBIT	2	2	6365	Bareilly	2018-10-23	South Asia	Uttar Pradesh	COMPLETE	Second
20361	TRANSFER	2	2	5217	Raipur	2018-10-24	South Asia	Rajasthan	PENDING	Second
20363	TRANSFER	4	2	7667	Raipur	2018-10-24	South Asia	Rajasthan	PENDING	Second
20364	DEBIT	5	2	12346	Raipur	2018-10-24	South Asia	Rajasthan	ON_HOLD	Second
20365	INVOICE	6	2	8011	Raipur	2018-10-24	South Asia	Rajasthan	PENDING_PAYMENT	Second
20366	TRANSFER	2	2	10746	Raipur	2018-10-24	South Asia	Rajasthan	PROCESSING	Second
20368	DEBIT	4	4	2497	Varanasi	2018-10-24	South Asia	Uttar Pradesh	COMPLETE	Standard

orders 86 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
172	21:13:22	select * from order_line LIMIT 0, 100	100 row(s) returned	0.015 sec / 0.000 sec
173	21:14:39	select * from orders LIMIT 0, 100	100 row(s) returned	0.000 sec / 0.000 sec

```

select *
from product;
-- Ashwin

```

Query 1 x TerpBuy (1)

Limit to 100 rows

```

1 • select *
2   from product;
3   -- Ashwin
4
5
6
7
8

```

Result Grid

	product_id	product_name	category_id	department_id	product_price
▶	37	adidas Kids F5 Messi FG Soccer Cleat	3	2	34.99
	44	adidas Mens F10 Messi TRX FG Soccer Cleat	3	2	59.99
	93	Under Armour Mens Tech II T-Shirt	5	2	24.99
	116	Nike Mens Comfort 2 Slide	6	2	44.99
	134	Nike Womens Legend V-Neck T-Shirt	7	2	25.00
	135	Nike Dri-FIT Crew Sock 6 Pack	7	2	22.00
	172	Nike Womens Tempo Shorts	9	3	30.00
	191	Nike Mens Free 5.0+ Running Shoe	9	3	99.99
	235	Under Armour Hustle Storm Medium Duffle Bag	11	3	34.99
	249	Under Armour Womens Micro G Skulpt Running S	12	3	54.97

product 87 x

Output

Action Output

#	Time	Action	Message
✓ 173	21:14:39	select * from orders LIMIT 0, 100	100 row(s) returned
✓ 174	21:16:20	select * from product LIMIT 0, 100	72 row(s) returned

select count(*)

from product;

-- Ashwin

Above query can be applied to all to get the number of count in each table.

Q2.Which products are considered high-priced products? A high-priced product has a price exceeding \$100.00. List the names and prices of the high-priced products.

ANS--

select product_name, product_price

from product

WHERE product_price > 100

-- Ashwin

Query 1 x TerpBuy (1)

Limit to 100 rows

```

1 • select product_name, product_price
2   from product
3  WHERE product_price > 100
4  -- Ashwin
5
6
7
8

```

Result Grid

product_name	product_price
Nike Mens CJ Elite 2 TD Football Cleat	129.99
Diamondback Womens Serene Classic Comfort Bi	299.98
Field & Stream Sportsman 16 Gun Fire Safe	399.98
Pelican Sunstream 100 Kayak	199.99
Web Camera	452.04
Childrens heaters	357.10
Dell Laptop	1500.00
Industrial CONSUMER electronics	252.88
Porcelain crafts	461.48
DVDs	164.38
.	500.00

product 88 x

Output

Action Output

#	Time	Action	Message
✓ 174	21:16:20	select * from product LIMIT 0, 100	72 row(s) returned
✓ 175	21:17:14	select product_name, product_price from product WHERE product_price > 100 --...	16 row(s) returned

Q3. List all orders placed by customers in the state of Florida. Note: The state abbreviation for Florida is 'FL'. Include the customers' first names, last names, city, and segment, along with the order ID and order date.

ANS—

```

SELECT C.first_name, C.last_name, C.CITY, C.segment, O.order_id, O.order_date
FROM ORDERS O
      INNER JOIN CUSTOMER C ON C.customer_id = O.customer_Id
WHERE state = 'FL';
-- ASHWIN

```

Query 1 x TerpBuy (1)

Limit to 100 rows

```

1 SELECT C.first_name, C.last_name, C.CITY, C.segment, O.order_id, O.order_date
2 FROM ORDERS O
3     INNER JOIN CUSTOMER C ON C.customer_id = O.customer_id
4 WHERE state = 'FL';
5 -- ASHWIN
6
7
8

```

Result Grid

	first_name	last_name	CITY	segment	order_id	order_date
▶	Laura	Smith	Winter Park	CORPORATE	20366	2018-10-24
	Linda	Murray	Pompano Beach	CORPORATE	20428	2018-10-25
	Mary	Smith	Tallahassee	CORPORATE	20492	2018-10-26
	Mary	Morrison	Brandon	HOME_OFFICE	20745	2018-10-29
	Jose	Smith	Miami	CORPORATE	20877	2018-10-31
	Patricia	Smith	Fort Lauderdale	CORPORATE	21239	2018-11-06
	Mary	Harris	Miami	CORPORATE	21278	2018-11-06
	Mary	Weaver	Miami	CONSUMER	22082	2018-11-18
	Mary	Holmes	Pompano Beach	CONSUMER	22188	2018-11-19
	James	Trevino	Miami	CONSUMER	22219	2018-11-20

Result 89 x

Output

Action Output

#	Time	Action	Message
✓ 175	21:17:14	select product_name, product_price from product WHERE product_price > 100 --...	16 row(s) returned
✓ 176	21:18:03	SELECT C.first_name, C.last_name, C.CITY, C.segment, O.order_id, O.order_dat...	69 row(s) returned

Q4 List all products that fall in one of the following categories: 'Computers', 'Toys', 'Tennis & Racquet'. Include the products' names, category, department, and price.

ANS-

```

SELECT product_name, department_name, category_name, product_price
FROM product, department, category
WHERE category_name IN ('Computers', 'Toys', 'Tennis', 'Racquet');

```

Query 1 x TerpBuy (1)

```

1 • SELECT product_name, department_name, category_name, product_price
2 FROM product, department, category
3 WHERE category_name IN ('Computers', 'Toys', 'Tennis', 'Racquet');
4
5 • SELECT P.product_name, D.department_name, C.category_name, P.product_price
6 FROM product P
7     INNER JOIN department D ON D.department_id = P.department_id
8     INNER JOIN category C ON C.category_id = P.category_id

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

	product_name	department_name	category_name	product_price
▶	adidas Kids F5 Messi FG Soccer Cleat	Indoors	Toys	34.99
	adidas Kids F5 Messi FG Soccer Cleat	Fitness	Toys	34.99
	adidas Kids F5 Messi FG Soccer Cleat	Footwear	Toys	34.99
	adidas Kids F5 Messi FG Soccer Cleat	Apparel	Toys	34.99
	adidas Kids F5 Messi FG Soccer Cleat	Golf	Toys	34.99
	adidas Kids F5 Messi FG Soccer Cleat	Outdoors	Toys	34.99
	adidas Kids F5 Messi FG Soccer Cleat	Fan Shop	Toys	34.99
	adidas Kids F5 Messi FG Soccer Cleat	Book Shop	Toys	34.99
	adidas Kids F5 Messi FG Soccer Cleat	Discs Shop	Toys	34.99
	adidas Kids F5 Messi FG Soccer Cleat	Technology	Toys	34.99

Result 35 x

Output

Action Output

#	Time	Action	Message
✓ 66	14:53:50	SELECT P.product_name, D.department_name, C.category_name, P.product_price FR...	2 row(s) returned
✓ 67	14:56:27	SELECT product_name, department_name, category_name, product_price FROM prod...	100 row(s) returned

```

SELECT P.product_name, D.department_name, C.category_name, P.product_price
FROM product P
    INNER JOIN department D ON D.department_id = P.department_id
    INNER JOIN category C ON C.category_id = P.category_id
WHERE category_name IN ('Computers', 'Toys', 'Tennis', 'Racquet');
-- ASHWIN

```

Query 1 x TerpBuy (1)

```

1 • SELECT P.product_name, D.department_name, C.category_name, P.product_price
2 FROM product P
3     INNER JOIN department D ON D.department_id = P.department_id
4     INNER JOIN category C ON C.category_id = P.category_id
5 WHERE category_name IN ('Computers', 'Toys', 'Tennis', 'Racquet');
6 -- ASHWIN
7
8

```

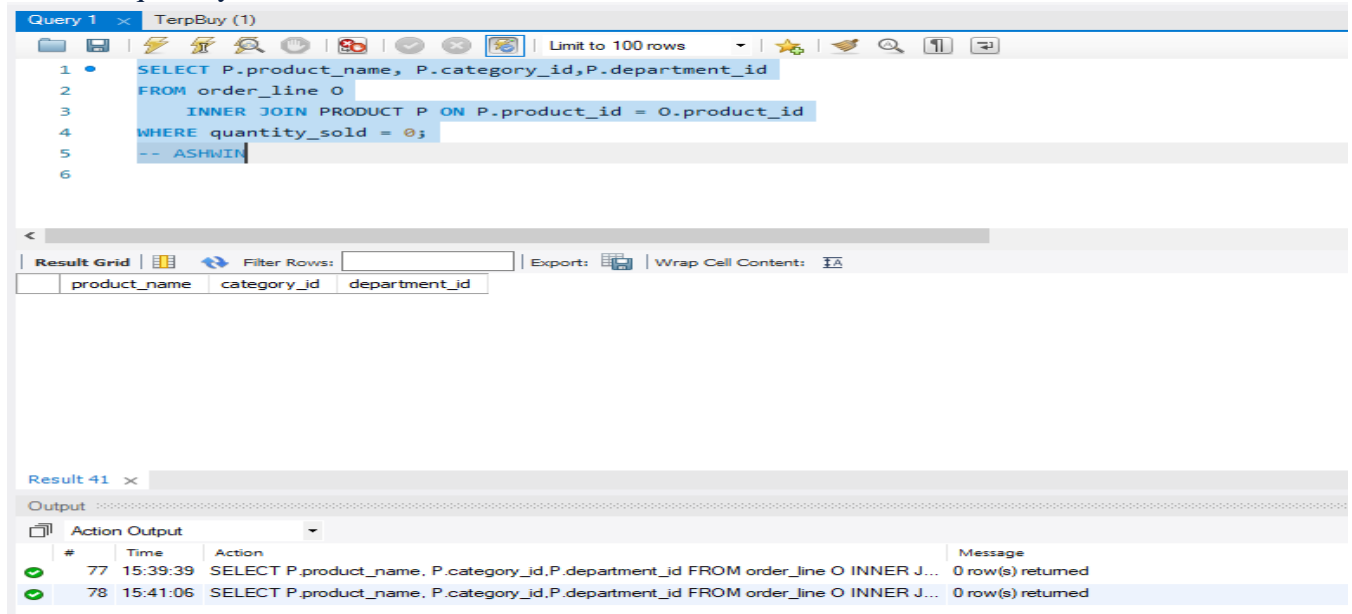
Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

	product_name	department_name	category_name	product_price
▶	Dell Laptop	Technology	Computers	1500.00
	Toys	Fan Shop	Toys	11.54

Q5--TerpBuy is considering reducing its product offerings. Which products have not yet been sold? Include the name, category, and department for each such product.

ANS-

```
SELECT P.product_name, P.category_id,P.department_id
FROM order_line O
      INNER JOIN PRODUCT P ON P.product_id = O.product_id
WHERE quantity_sold = 0;
```



Q6-- List the names of all cities from where orders are shipped. Also, for such cities, find the number of orders for which shipping was delayed. Sort the list of cities in order from the highest to the least number of shipping orders.

ANS----

```
SELECT order_city, order_status,actual_shipping_days-scheduled_shipping_days AS
DELAY
FROM orders
WHERE actual_shipping_days-scheduled_shipping_days > 0
ORDER BY actual_shipping_days-scheduled_shipping_days DESC;
-- ASHWIN
```

Query 1 x TerpBuy (1)

Limit to 100 rows

```

1 SELECT order_city, order_status, actual_shipping_days-scheduled_shipping_days AS DELAY
2 FROM orders
3 WHERE actual_shipping_days-scheduled_shipping_days > 0
4 ORDER BY actual_shipping_days-scheduled_shipping_days DESC;
5 -- ASHWIN

```

Result Grid

order_city	order_status	DELAY
Jodhpur	ON_HOLD	4
Moradabad	COMPLETE	4
Raipur	PENDING_PAYMENT	4
Lucknow	PENDING	4
Rajkot	COMPLETE	4
Mangalore	CLOSED	4
Chennai	COMPLETE	4
Vadodara	COMPLETE	4
Cuttack	PENDING_PAYMENT	4
Aligarh	PENDING	4

Result 48 x

Output

#	Time	Action	Message
86	17:08:41	SELECT order_city, order_status, actual_shipping_days-scheduled_shipping_day...	100 row(s) returned
87	17:14:05	SELECT order_city, order_status, actual_shipping_days-scheduled_shipping_day...	100 row(s) returned

Q7--How many customers are there in each segment? Show the most popular segment at the top of the result. Incorporate a column alias in the result.

ANS—

```

SELECT segment, COUNT(customer_id) AS NUM_OF_CUSTOMERS
FROM customer
GROUP BY segment
ORDER BY NUM_OF_CUSTOMERS DESC;
-- ASHWIN

```

Query 1 x TerpBuy (1)

Limit to 100 rows

```

1 SELECT segment,COUNT(customer_id) AS NUM_OF_CUSTOMERS
2 FROM customer
3 GROUP BY segment
4 ORDER BY NUM_OF_CUSTOMERS DESC;
5 -- ASHWIN

```

Result Grid

segment	NUM_OF_CUSTOMERS
CONSUMER	2312
CORPORATE	1312
HOME_OFFICE	837

Result 57 x

Output

Action Output

#	Time	Action	Message
98	17:47:54	SELECT segment,COUNT(customer_id) AS NUM_OF_CUSTOMERS FROM cus...	3 row(s) returned
99	17:48:37	SELECT segment,COUNT(customer_id) AS NUM_OF_CUSTOMERS FROM cus...	3 row(s) returned

Q8--How many orders were placed in the first quarter of 2021? Note: A quarter consists of three months. Incorporate a column alias in the result.

ANS—

SELECT COUNT(order_id), order_date

FROM orders

GROUP BY order_date

HAVING order_date BETWEEN '2021-01-01' AND '2021-03-31';

-- ASHWIN

Query 1 x TerpBuy (1)

```

1 SELECT COUNT(order_id), order_date
2 FROM orders
3 GROUP BY order_date
4 HAVING order_date BETWEEN '2021-01-01' AND '2021-03-31';
5 -- ASHWIN

```

Result Grid

	COUNT(order_id)	order_date
12		2021-01-01
12		2021-01-02
15		2021-01-03
14		2021-01-04
18		2021-01-05
12		2021-01-06
5		2021-01-07
14		2021-01-08
2		2021-01-09
14		2021-01-10

Result 62 x

Output

#	Time	Action	Message
106	18:11:35	SELECT COUNT(order_id), order_date FROM orders GROUP BY ORDER_ID H...	100 row(s) returned
107	18:12:10	SELECT COUNT(order_id), order_date FROM orders GROUP BY order_date HA...	30 row(s) returned

Q9-- List in alphabetical order all states supporting multiple customer segments.

Ans

```

SELECT order_state, COUNT(customer_Id)
FROM orders
GROUP BY order_state
HAVING COUNT(*) > 2
order by order_state;
-- ashwin

```

```

Query 1 x TerpBuy (1)
1 • SELECT order_state, COUNT(customer_Id)
2 FROM orders
3 GROUP BY order_state
4 HAVING COUNT(*) > 2
5 order by order_state;
6 -- ashwin

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

order_state	COUNT(customer_Id)
ammu and Kashmir	22
Andhra Pradesh	96
Assam	31
Bihar	87
Chandigarh	8
Chhattisgarh	68
Delhi	73
Gujarat	123
Haryana	55
Jharkhand	34

Result 64 x

Output

#	Time	Action	Message
✓ 108	18:23:32	SELECT order_state, COUNT(customer_Id) FROM orders GROUP BY order_stat...	25 row(s) returned
✓ 109	18:24:13	SELECT order_state, COUNT(customer_Id) FROM orders GROUP BY order_stat...	25 row(s) returned

Q10-To help the commercial sales department with its marketing, find all customers in the corporate segment who have not placed any orders. Include each customers' first name, last name, street, city, state, and zip code. Sort the results by the last name first and then by the first name.

Ans

```

select first_name, last_name, street, city, state, zipcode
from customer
where segment = 'corporate'
and segment
not in (select quantity_sold
        from order_line
        where quantity_sold);

```

Query 1 x TerpBuy (1)

Limit to 100 rows

```

1 • select first_name, last_name, street, city, state, zipcode
2   from customer
3   where segment = 'corporate'
4     and segment
5     not in (select quantity_sold
6             from order_line
7             where quantity_sold);
8   -- ashwin

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetr

	first_name	last_name	street	city	state	zipcode
▶	Megan	Smith	3047 Foggy Forest Plaza	Lawrence	MA	01841
	Tiffany	Smith	6651 Iron Port	Caguas	PR	00725
	Mary	Herring	4575 Thunder Dale	Caguas	PR	00725
	Howard	Smith	1356 Easy Plaza	Napa	CA	94558
	Mary	Simmons	5553 Cinder Harbour	Los Angeles	CA	90042
	Shirley	Dalton	1021 Silver Log Cape	Caguas	PR	00725
	Mary	Williams	4501 Cinder Dell	Broomfield	CO	80020
	Mary	Smith	6889 Pleasant Mount	Hialeah	FL	33010
	Amy	Smith	151 Red Deer Landing	Dundalk	MD	21222
	Jose	Powers	3937 Sunny Common	Caguas	PR	00725
customer 74

Q11--There has been a recall of the product Nike Mens Free 5.0+ Running Shoe.

TerpBuy would have to offer a discount coupon to all customers who purchased this product. Find all orders that included this product as a part of the purchase. For all such orders, list the customers' first names, last names, street, state, zip code, and order date. Each customer can be offered only one discount coupon. Hence, do not list the same customer more than once.

ANS

```

SELECT C.first_name, C.last_name, C.street, C.state, C.zipcode, O.order_date
FROM CUSTOMER C

```

```

    INNER JOIN ORDERS O ON O.customer_Id = C.customer_Id;

```

```

UNION

```

```

    select product_name
    from product
    where product_name = 'Nike Mens Free 5.0+ Running Shoe';

```

--- ASHWIN

Query 1 x TerpBuy (1)

Limit to 100 rows

```

1 SELECT C.first_name, C.last_name, C.street, C.state, C.zipcode, O.order_date
2 FROM CUSTOMER C
3     INNER JOIN ORDERS O ON O.customer_Id = C.customer_Id;
4 UNION
5     select product_name
6     from product
7     where product_name = 'Nike Mens Free 5.0+ Running Shoe';
8 --- ASHWIN

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

	first_name	last_name	street	state	zipcode	order_date
▶	Phillip	Mcgee	2391 Lost Byway	PR	00725	2018-10-23
	Mary	Reynolds	4823 Broad Route	OR	97045	2018-10-23
	Mary	Smith	100 Jagged Cloud Pathway	PR	00725	2018-10-23
	David	Smith	6906 Quiet Rise	CA	94550	2018-10-24
	Henry	Maldonado	9602 Broad Gardens	PR	00725	2018-10-24
	Mary	Smith	3385 Cotton Wharf	CA	95051	2018-10-24
	Mary	Hill	6179 Noble Panda Moor	PR	00725	2018-10-24
	Laura	Smith	3702 Noble Plaza	FL	32792	2018-10-24
	Wayne	Hardy	4132 Broad Gate Lane	TX	75150	2018-10-24
	Nicholas	Smith	603 Green Sky Promenade	LA	70072	2018-10-24

Q12--Premium customers are those customers who have placed orders with order amounts greater than the average order amount. For each customer, find the first and last names, and the order amount for all orders that exceeded the average order amount.

```

SELECT first_name,last_name,total_price
FROM customer
WHERE total_price > (SELECT AVG(total_price)
FROM order_line);
-- Ashwin

```