

```

3 select distinct customers.city, customers.name
4   from customers
5  Where customers.city in (
6      Select Products.city
7      From Products
8      group by Products.city
9      order by count(Products.city) desc
10     Limit 2
11 );

```

Data Output

Explain

Messages

History

<input type="checkbox"/>	city text	name text
<input type="checkbox"/>	Dallas	Allied
<input type="checkbox"/>	Dallas	Tyrell

```
13 -- 2. Display the names of products whose priceUSD is strictly above the average priceUSD, in reverse-alphabetical order.
14 select products.name
15   From products
16   Where products.priceUSD > ( select avg(priceUSD) from products)
17   order by products.name desc;
18
```

Data Output

Explain

Messages

History

<input type="checkbox"/>	name text
<input type="checkbox"/>	trapper
<input type="checkbox"/>	eraser

```

20 -- 3. Display the customer name, pid ordered, and the total for all orders, sorted by total from low to high.
21 select Customers.name, Orders.pid, Orders.totalUSD
22     From Customers
23     Inner Join Orders
24     On Customers.cid = Orders.cid
25     Order by totalUSD Asc;
26

```

Data Output Explain Messages History

<input type="checkbox"/>	name text	pid character	totalusd numeric ...
<input type="checkbox"/>	Tiptop	p02	180
<input type="checkbox"/>	ACME	p01	400
<input type="checkbox"/>	Tiptop	p05	450
<input type="checkbox"/>	Tiptop	p01	450
<input type="checkbox"/>	ACME	p01	460
<input type="checkbox"/>	ACME	p01	500
<input type="checkbox"/>	Tiptop	p04	540
<input type="checkbox"/>	Tiptop	p03	540
<input type="checkbox"/>	ACME	p07	600
<input type="checkbox"/>	Tiptop	p06	720
<input type="checkbox"/>	Tiptop	p07	720
<input type="checkbox"/>	Tyrell	p03	744
<input type="checkbox"/>	Tyrell	p03	880
<input type="checkbox"/>	Allied	p05	1104

```
27 -- 4. Display all customer names (in alphabetical order) and their total ordered, and nothing more. Use coalesce to avoid showing NULLs.
28 Select Customers.name, sum(Coalesce(Orders.totalUSD,0))
29   From Customers
30   Left Outer Join Orders
31     On Customers.cid = orders.cid
32   Group By customers.name
33   order by Customers.name asc;
34
```

Data Output Explain Messages History

<input type="checkbox"/>	name text	sum numeric
<input type="checkbox"/>	ACME	1960
<input type="checkbox"/>	Allied	1104
<input type="checkbox"/>	Tiptop	3600
<input type="checkbox"/>	Tyrell	1624
<input type="checkbox"/>	Weyland	0

```

36 -- 5. Display the names of all customers who bought products from agents based in Newark along with the names of the
37 -- products they ordered, and the names of the agents who sold it to them.
38 select customers.name, Products.name, Agents.name
39 From customers
40     Inner Join Orders
41     On customers.cid = Orders.cid
42     Inner Join Products
43     On Products.pid = Orders.pid
44     Inner Join Agents
45     On Agents.aid = Orders.aid
46     where agents.city = 'Newark';
47

```

Data Output Explain Messages History

<input type="checkbox"/>	name text	name text	name text
<input type="checkbox"/>	Tiptop	brush	Jones

```

49 -- 6. Write a query to check the accuracy of the totalUSD column in the Orders table. This means calculating Orders.totalUSD from data in other
50 -- tables and comparing those values to the values in Orders. totalUSD. Display all rows in Orders where Orders.totalUSD is incorrect, if any.
51 Select orders.*, (products.priceUSD * Orders.qty) - (products.priceUSD * orders.qty * customers.discount * 0.01) as newtotal
52 from orders
53     Inner Join Customers
54         on Orders.cid = Customers.cid
55     Inner join Products
56         on orders.pid = products.pid
57     where (products.priceUSD * Orders.qty) - (products.priceUSD * orders.qty * customers.discount * 0.01) <> orders.totalUSD;
58     -- I wish I could just do where newtotal <> orders.totalUSD;
59

```

Data Output Explain Messages History

<input type="checkbox"/>	ordnumb...	month	cid	aid	pid	qty	totalusd	newtotal	
	integer	character	character	character	character	integer	numeric ...	numeric	
<input type="checkbox"/>	1021	Feb	c004	a06	p01	1000	460	457.5	
<input type="checkbox"/>	1026	May	c002	a05	p03	800	744	704	

```

67 -- Example of a Right Outer Join
68 Select Agents.name, customers.name
69 from agents
70     Right Outer Join Customers
71     on agents.city = customers.city;
72
73 -- Example of a Left Outer Join
74 Select Agents.name, customers.name
75 from agents
76     Left Outer Join Customers
77     on agents.city = customers.city;

```

Data Output

Explain

Messages

History

<input type="checkbox"/>	name text	name text	
<input type="checkbox"/>	Otasi	ACME	
<input type="checkbox"/>	Otasi	Tiptop	
<input type="checkbox"/>	Smith	Allied	
<input type="checkbox"/>	Smith	Tyrell	
<input type="checkbox"/>		Weyland	
<input type="checkbox"/>		ACME	

```

67 -- Example of a Right Outer Join
68 Select Agents.name, customers.name
69 from agents
70 Right Outer Join Customers
71 on agents.city = customers.city;
72
73 -- Example of a Left Outer Join
74 Select Agents.name, customers.name
75 from agents
76 Left Outer Join Customers
77 on agents.city = customers.city;

```

Data Output

Explain

Messages

History

<input type="checkbox"/>	name text	name text	
<input type="checkbox"/>	Smith		
<input type="checkbox"/>	Jones		
<input type="checkbox"/>	Perry		
<input type="checkbox"/>	Grey		
<input type="checkbox"/>	Otasi	ACME	
<input type="checkbox"/>	Otasi	Tiptop	
<input type="checkbox"/>	Smith	Allied	
<input type="checkbox"/>	Smith	Tyrell	
<input type="checkbox"/>	Bond		