

Cities With Completed Trades [Robinhood SQL Interview Question]

This is the same question as problem #2 in the SQL Chapter of [Ace the Data Science Interview!](#)

Assume you're given the tables containing completed trade orders and user details in a Robinhood trading system.

Write a query to retrieve the top three cities that have the highest number of completed trade orders listed in descending order. Output the city name and the corresponding number of completed trade orders.

`trades` Table:

Column Name	Type
order_id	integer
user_id	integer
price	decimal
quantity	integer
status	string('Completed' , 'Cancelled')
timestamp	datetime

`trades` Example Input:

order_id	user_id	price	quantity	status	timestamp
100101	111	9.80	10	Cancelled	08/17/2022 12:00:00
100102	111	10.00	10	Completed	08/17/2022 12:00:00
100259	148	5.10	35	Completed	08/25/2022 12:00:00

order_id	user_id	price	quantity	status	timestamp
100264	148	4.80	40	Completed	08/26/2022 12:00:00
100305	300	10.00	15	Completed	09/05/2022 12:00:00
100400	178	9.90	15	Completed	09/09/2022 12:00:00
100565	265	25.60	5	Completed	12/19/2022 12:00:00

users Table:

Column Name	Type
user_id	integer
city	string
email	string
signup_date	datetime

users Example Input:

user_id	city	email	signup_date
111	San Francisco	rrrok10@gmail.com	08/03/2021 12:00:00
148	Boston	sailor9820@gmail.com	08/20/2021 12:00:00
178	San Francisco	harrypotterfan182@gmail.com	01/05/2022 12:00:00
265	Denver	shadower_@hotmail.com	02/26/2022 12:00:00
300	San Francisco	houstoncowboy1122@hotmail.com	06/30/2022 12:00:00

Example Output:

city	total_orders
San Francisco	3
Boston	2
Denver	1

Explanation

In the given dataset, San Francisco has the highest number of completed trade orders with 3 orders. Boston holds the second position with 2 orders, and Denver ranks third with 1 order.

The dataset you are querying against may have different input & output - **this is just an example!**