

Compressed Mean [Alibaba SQL Interview Question]

You're trying to find the mean number of items per order on Alibaba, rounded to 1 decimal place using tables which includes information on the count of items in each order (`item_count` table) and the corresponding number of orders for each item count (`order_occurrences` table).

`items_per_order` Table:

Column Name	Type
item_count	integer
order_occurrences	integer

`items_per_order` Example Input:

item_count	order_occurrences
1	500
2	1000
3	800
4	1000

There are a total of 500 orders with one item per order, 1000 orders with two items per order, and 800 orders with three items per order."

Example Output:

mean
2.7

Explanation

Let's calculate the arithmetic average:

$$\text{Total items} = (1 \cdot 500) + (2 \cdot 1000) + (3 \cdot 800) + (4 \cdot 1000) = 8900$$

$$\text{Total orders} = 500 + 1000 + 800 + 1000 = 3300$$

$$\text{Mean} = 8900 / 3300 = 2.7$$

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