



Pharmacy Analytics [p2] (CVS Health)

QUESTION

CVS Health is analyzing its pharmacy sales data, and how well different products are selling in the market. Each drug is exclusively manufactured by a single manufacturer.

Write a query to identify the manufacturers associated with the drugs that resulted in losses for CVS Health and calculate the total amount of losses incurred.

Output the manufacturer's name, the number of drugs associated with losses, and the total losses in absolute value. Display the results sorted in descending order with the highest losses displayed at the top.

pharmacy_sales Table:

Column Name	Type
product_id	integer
units_sold	integer
total_sales	decimal
cogs	decimal
manufacturer	varchar
drug	varchar

pharmacy_sales Example Input:

product_id	units_sold	total_sales	cogs	manufacturer	drug
156	89514	3130097.00	3427421.73	Biogen	Acyclovir
25	222331	2753546.00	2974975.36	AbbVie	Lamivudine and Zidovudine
50	90484	2521023.73	2742445.90	Eli Lilly	Dermasorb TA Complete Kit
98	110746	813188.82	140422.87	Biogen	Medi-Chord

Step 1: Identify the problem of the case

Create a query to discover manufacturers connected with medications that result in CVS Health losses and sum the amount of losses incurred. Export the name of the producer, the number of

medications implicated in the loss, and the total loss in absolute dollars. The loss is computed using the formula COGs - total Revenue or | total Revenue - COGs|. The results are displayed in descending order, with the biggest losses at the top. The ultimate result is as follows:

Column Name	Type
manufacturer	varchar
drug_count	integer
total_loss	decimal

Step 2 : Analyze and solve problems

First we need to calculate the loss of each drugs.

```
SELECT manufacturer
      , drug
      , cogs - total_sales loss
FROM pharmacy_sales
```

Filter manufacturers that are affiliated with pharmacies that are losing money by filtering the result on: `loss > 0`. then calculate the total loss and the number of drugs that the manufacturers have. Sort the results in descending order of total losses.

```
SELECT manufacturer
      , COUNT(drug) drug_count
      , SUM(cogs - total_sales) total_loss
FROM pharmacy_sales
WHERE cogs - total_sales > 0
GROUP BY manufacturer
ORDER BY total_loss DESC
```

The final output:

manufacturer	drug_count	total_loss
Johnson & Johnson	6	894913.13
Eli Lilly	4	447352.90
Biogen	3	417018.89
AbbVie	2	413991.10
Roche	2	159741.62
Bayer	1	28785.28