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Laptop vs. Mobile Viewership (New York Times)

Question

Assume you're given the table on user viewership categorised by device type where the three types are laptop, tablet, and phone.

Write a query that calculates the total viewership for laptops and mobile devices where mobile is defined as the sum of tablet and phone viewership. Output the total viewership for laptops as `laptop_reviews` and the total viewership for mobile devices as `mobile_views`.

Effective 15 April 2023, the solution has been updated with a more concise and easy-to-understand approach.

`viewership` Table

Column Name	Type
user_id	integer
device_type	string ('laptop', 'tablet', 'phone')

view_time	timestamp
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viewership Example Input

user_id	device_type	view_time
123	tablet	01/02/2022 00:00:00
125	laptop	01/07/2022 00:00:00
128	laptop	02/09/2022 00:00:00
129	phone	02/09/2022 00:00:00
145	tablet	02/24/2022 00:00:00

Step 1: Identify the problem of the case

In this case, we need to find the total number of mobile devices and laptops in which mobile mode includes both mobile and tablet.

The final result will have two columns: the total number of mobile mode devices and laptop mode devices. The result has the following form:

Column Name	Type
laptop_views	integer
mobile_views	integer

Step 2 : Analyze and solve problems

Use the COUNT function to count the number of devices. Also using FILTER to set more conditions for the count function, we have:

```
SELECT COUNT(*) FILTER (WHERE device_type = 'laptop') laptop_views  
      , COUNT(*) FILTER (WHERE device_type = 'phone' or device_type = 'tablet') mobile_views  
FROM viewership
```

we get the result:

laptop_views	mobile_views
2	3