



Teams Power Users (Microsoft)

QUESTION

Write a query to identify the top 2 Power Users who sent the highest number of messages on Microsoft Teams in August 2022. Display the IDs of these 2 users along with the total number of messages they sent. Output the results in descending order based on the count of the messages.

Assumption:

- No two users have sent the same number of messages in August 2022.

messages Table:

Column Name	Type
message_id	integer
sender_id	integer
receiver_id	integer
content	varchar
sent_date	datetime

messages Example Input:

message_id	sender_id	receiver_id	content	sent_date
901	3601	4500	You up?	08/03/2022 00:00:00
902	4500	3601	Only if you're buying	08/03/2022 00:00:00
743	3601	8752	Let's take this offline	06/14/2022 00:00:00
922	3601	4500	Get on the call	08/10/2022 00:00:00

Step 1: Identify the problem of the case

Identify the top 2 Power Users on Microsoft Teams in August 2022 based on the volume of messages they sent. Identify these 2 users' IDs and the total number of messages they have sent. Depending on how many messages there are, output the findings in decreasing order.

The output look like the the table below:

Column Name	Type
sender_id	integer
message_count	integer

Step 2 : Analyze and solve problems

The case requires data in August 2022, so we need to filter the data in that month, using `WHERE` provided that the month of `sent_date` = 8 and year = 2022. Using the `EXTRACT()` function will help you get the month and year from `sent_date`.

```
SELECT * FROM messages
WHERE EXTRACT(month from sent_date) = 8
    AND EXTRACT(year from sent_date) = 2022
```

Then we count the number of messages with the `COUNT()` function, then sort the number of messages in descending order with `DESC`. To get the top 2 senders with the most messages, use `LIMIT` to get the top two records.

```
FROM messages
WHERE EXTRACT(month from sent_date) = 8
    AND EXTRACT(year from sent_date) = 2022
GROUP BY 1
ORDER BY message_count DESC
LIMIT 2
```

We have the result:

sender_id	message_count
3601	4
2520	3