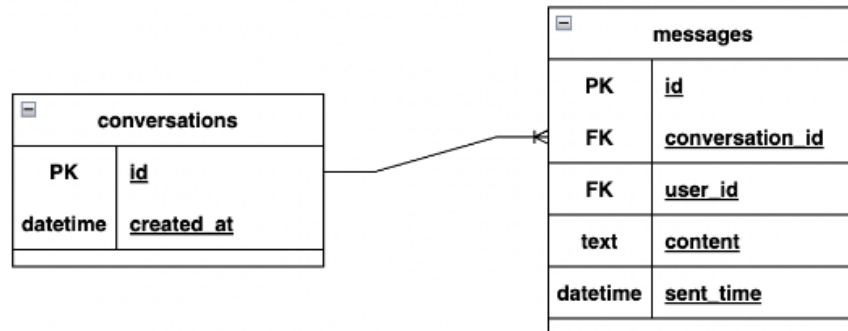


SQL test for Data Analyst at Aisle

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Problem 2: Given below are 2 tables, conversations and messages.



Write a SQL query to:

- Fetch number of first message sent in a conversation in a day. Date range - 1st Jan 2021 to 31st Dec 2021.
- Fetch number of first reply message sent in a conversation in a day. Date range - 1st Jan 2021 to 31st Dec 2021.
- Total conversation with 3 way messaging. 3 way messaging means User1 sent the message, then User2 replied and finally User1 messaged back.

Assume only 2 users are a part of 1 conversation. In the given database:

- conversation_id - ID of each conversation
- user_id - ID of the user who sent the message
- sent_time - Time of message when it was sent
- content - Message/text written by the user

1. To query the number of first messages sent in a day:

```
select count(distinct(conversation_id)), min(FM_Date) from (select
conversation_id, cast(min(sent_time) as date) as FM_Date from messages group
by conversation_id) as table1 where FM_Date between '2021-01-31' and
'2022-12-31' group by FM_Date;
```

2. To query the number of first replies sent in a day

```
select count(conversation_id), Date from (select conversation_id,  
cast(min(sent_time) as date) Date from messages group by conversation_id  
having count(distinct(user_id))=2) as table1 where Date between '2021-02-04'  
and '2022-10-20' group by Date;
```

3. Total conversations with 3 way messaging

```
select count(distinct(conversation_id)) from messages  
group by conversation_id  
having count(user_id)>=3
```