

Realtime Data: Yammer Case Study

Please create a free account on www.mode.com to view the data. We have also provided the data in CSV format. You can use any tools or visualizations within Mode or your own SQL setup to conduct your analysis. In [this LINK](#) you'll find demos/resources on how to use Mode and the different types of visualization tools available. Sample output format is also provided in this document for your reference.

The goal of this exercise is to get a feel for your basic technical skills, working style, and overall approach to analysis. We suggest you spend three to four hours working on this assignment. We like to emphasize that there is no one correct answer, and we are most interested in:

- Your approach, thought process, and how you solve problems
- How you collaborate with the team and explain your work
- Presentation of your findings in a clear manner either in Excel or Word or ppt format with charts

Table Schemas & Fields

tutorial.yammer_users - logs user registrations

user_id
created_at
company_id
language
activated_at
State

tutorial.yammer_events - logs all user engagement events

user_id
occurred_at
event_type
event_name
location
device
user_type

tutorial.yammer_emails - logs all actions related to email

user_id
occurred_at
action
User_type

Questions and discussion points

Question 1: Write the queries in SQL and copy the output data to excel. Create an Executive KPI static/ dynamic dashboard in Excel or word or ppt or Mode.com that provides visibility into 10 reports/ charts that provide insights into how the business is performing. Question1 inputs as follows:

1. #Number of new registrations by year-month
2. #Number of new registrations by State for Non-English languages
3. #Number of new registrations only for Top3 and Bottom3 languages
4. Avg days difference between Account creation date and Activation date by country
5. #Num of new Users with Zero events , 1- 100 events and more than 100 events engagement
6. #Num of matching Users between Users & Events, Events & Emails, Users & Emails tables
7. #Num of Users who created and activated accounts on the same day by country
8. #Num of Like_Messages by Device Type and Country
9. By country, what is the User's Average time spent on Yammer
10. #Num of times Email_Open by year for Japanese Language Users

Question 2: Write a query that calculates the average weekly engagement activities per active user by location. Which country tends to be the most active?

Question 3: Write a query that shows MoM percent change in user registrations. What observations can you make about the trend in user registrations?

Thank you!
Swinfy Training Team

OUTPUT FORMAT

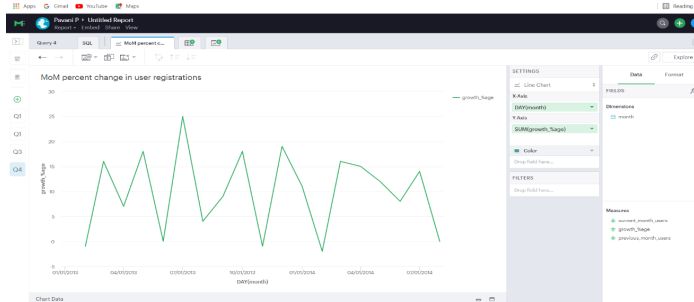
Yammer Case Study for SQL practice

Q1. Show MoM percent change in user registrations

Q2. Show the average weekly engagement activities per active user by location

Q1) Code:

```
WITH USERS AS (  
  SELECT DATE_TRUNC(month, created_at) AS MONTH,  
  GROUP BY 1)  
SELECT month,  
  unique_users AS current_month_users,  
  LAG(unique_users, 1) OVER (ORDER BY month) AS previous_month_users,  
  (ORDER BY month)) AS "growth_%age"  
FROM USERS
```

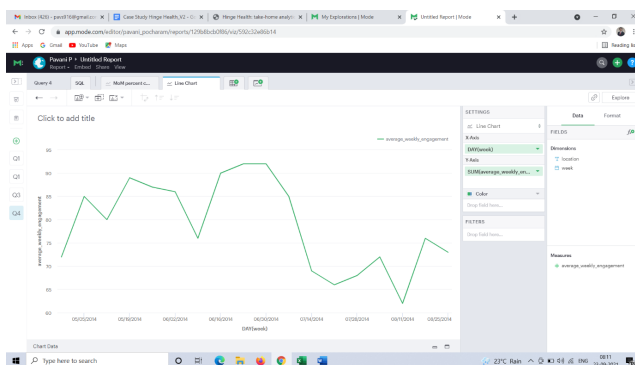


- **Insights:**

1. The range of fluctuations is -2 to 25 percentage
2. There is a positive trend in users' registration

Q2) Code:

```
WITH WEEKLY_WAU AS (  
  SELECT e.user_id,  
  DATE_TRUNC('week', e.occurred_at) AS week,  
  WHERE e.event_type = 'engagement'  
  GROUP BY 1, 2, 3)  
SELECT  
  week,  
  location,  
  ROUND(Avg(weekly_engagement),0) AS average_weekly_engagement
```



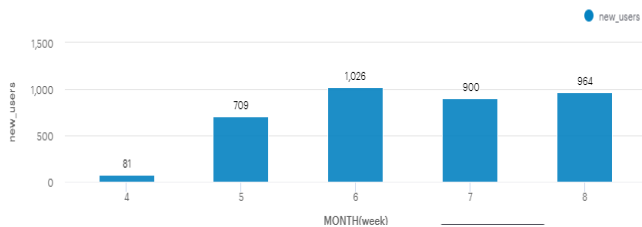
- **Insights:**

The global weekly engagement ranging is between 12 to 17 engagements per week

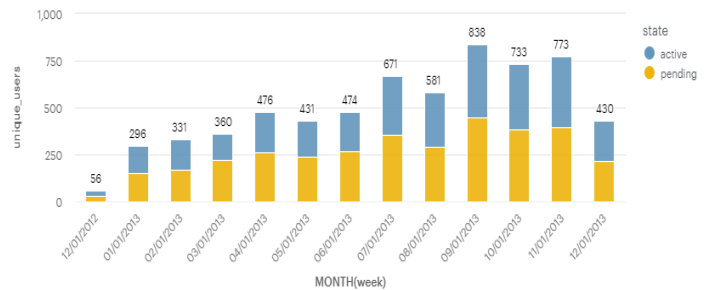
OUTPUT FORMAT -2 (You can plot the charts in Excel as well)

1. MoM percent change in user registration : CHART, INSIGHT and CODE
2. Average weekly engagement activities per active user by location: CHART, INSIGHT and CODE
3. Most active country : CHART, INSIGHT and CODE
4. KPIs show Yammer's performance at each stage of the user journey:: CHART, INSIGHT & CODE
 - a. Acquisition - New Users Signup Trend
 - b. Activation - Registrations by pending vs. active
 - C. Retention - Engagement by continent

NEW SIGNUP USERS BY MONTHLY:



ACTIVE & PENDING USERS JOURNEY



MONTHLY USERS BY CONTINENT

