

Trainity Assignment -3

No video solution available even after unlocking project labs and even the retention problem with query is not completely understood need a solution and video for understanding this part.

Case Study -2

The screenshot displays the Mode Public Warehouse interface. The top navigation bar includes 'Trainity Dashboard', 'Trainity Dashboard', 'Untitled Report | Mode', and 'My Drive - Google Drive'. The main interface shows a report titled 'Untitled Report' with a sidebar on the left containing 'Report Builder' and 'Add Notebook'. The central area displays a SQL query for 'Query 1' with a 'Run' button and a 'Limit 100' checkbox. The query is as follows:

```
1- /**
2 yammer_users -> user level data
3 yammer_events -> event level data
4 yammer_email -> email level data
5 **/
6
7- /**
8 Question No 1
9 To measure the activeness of a user. Measuring if the user finds quality in a product/service.
10 Your task:
11 Calculate the weekly user engagement?
12 **/
13
14 SELECT
15 EXTRACT (week from occurred_at) as weeknum,
16 count(distinct user_id)
17 FROM tutorial.yammer_events
18 GROUP BY
19 weeknum
```

The query results are displayed in a table with columns 'weeknum' and 'count'. The table shows 11 rows of data, with the first row having weeknum 18 and count 791, and the last row having weeknum 28 and count 1556. The table is titled 'yammer_users' and has columns 'user_id', 'created_at', 'company_id', 'language', 'activated_at', and 'state'.

weeknum	count
18	791
19	1244
20	1270
21	1341
22	1293
23	1366
24	1434
25	1462
26	1443
27	1477
28	1556

The bottom of the interface shows the page number 'Page 1 of 1' and the status 'Showing rows 1-18 of 18 Columns 2 Size 2888 Run a few seconds ago Returned in 756ms'.

Trinity Dashboard x Trinity Dashboard x Editor | Mode x My Drive - Google Drive x +

app.mode.com/editor/rachitt01/reports/53f1443985e1/queries/91a7972bcf29

Untitled Report

Report Builder Add Notebook

DATA Query1 +

Run Limit 100 Format View history

```
7- /**
8 Question No 2:
9 Amount of users growing over time for a product.
10 Your task:
11 Calculate the user growth for product?
12 **/
13 SELECT
14 weeknum,
15 num_active_user,
16 sum(num_active_user) over (order by weeknum ROWS BETWEEN UNBOUNDED PRECEDING AND CURRENT ROW) as cum_sum
17 FROM
18 ( SELECT
19 EXTRACT(year from activated_at)||'-'||EXTRACT(week from activated_at) as weeknum,
20 count(distinct user_id) AS num_active_user
21 FROM tutorial.yammer_users
22 where state = 'active'
23 group by 1
24 ) a
```

Ready

Mode Public Warehouse (everyone)

Search public (everyone)

tutorial.yammer_users

tutorial

- aapl_historical_stock_price
- accounts
- animal_crossing_achievements
- animal_crossing_art
- animal_crossing_bags
- animal_crossing_bottoms
- animal_crossing_construction
- animal_crossing_dress_up
- animal_crossing_fencing
- animal_crossing_fish
- animal_crossing_floors
- animal_crossing_fossils
- animal_crossing_headwear
- animal_crossing_housewares
- animal_crossing_insects
- animal_crossing_miscellaneous
- animal_crossing_music
- animal_crossing_other
- animal_crossing_photos
- animal_crossing_posters
- animal_crossing_recipes
- animal_crossing_rugs
- animal_crossing_shoes
- animal_crossing_tools
- animal_crossing_tops
- animal_crossing_umbrellas
- animal_crossing_villagers

Data Fields Source

	weeknum	num_active_user	cum_sum
1	2013-1	67	67
2	2013-10	43	110
3	2013-11	33	143
4	2013-12	32	175
5	2013-13	33	208
6	2013-14	40	248
7	2013-15	35	283
8	2013-16	42	325
9	2013-17	48	373
10	2013-18	48	421
11	2013-19	45	466
12	2013-2	29	495

Showing rows 1-87 of 87 Columns 3 Size 3KB Run 1 minute ago Returned in 539ms

Trinity Dashboard x Trinity Dashboard x Widget x Editor | Mode x +

https://app.mode.com/editor/rachitt01/reports/53f1443985e1/queries/91a7972bcf29

Untitled Report

Report Builder Add Notebook

DATA Query1 +

Run Limit 100 Format View history

```
1- /**
2 yammer_users -> user level data
3 yammer_events -> event level data
4 yammer_email -> email level data
5 **/
6
7- /**
8 Question No 3:
9 Users getting retained weekly after signing-up for a product.
10 Your task:
11 Calculate the weekly retention of users-sign up cohort?
12 **/
13
14 SELECT
15 COUNT(user_id),
16 sum(CASE WHEN retention_week = 1 then 1 else 0 end) as week_1,
17 sum(CASE WHEN retention_week = 2 then 1 else 0 end) as week_2,
18 sum(CASE WHEN retention_week = 3 then 1 else 0 end) as week_3,
19 sum(CASE WHEN retention_week = 4 then 1 else 0 end) as week_4,
20 sum(CASE WHEN retention_week = 5 then 1 else 0 end) as week_5
21 from
22 (SELECT
23 a.user_id,a.signup_week,b.engagement_week,
24 b.engagement_week - a.signup_week as retention_week
25 FROM
26 (
27 (SELECT
28 DISTINCT user_id,EXTRACT(week from occurred_at) AS signup_week
29 FROM tutorial.yammer_events
```

Succeeded in 817ms

Mode Public Warehouse (everyone)

Search public (everyone)

tutorial.yammer_users

tutorial.yammer_events

tutorial.yammer_emails

tutorial

- aapl_historical_stock_price
- accounts
- animal_crossing_achievements
- animal_crossing_art
- animal_crossing_bags
- animal_crossing_bottoms
- animal_crossing_construction
- animal_crossing_dress_up
- animal_crossing_fencing
- animal_crossing_fish

yammer_events

- device string
- event_name string
- event_type string
- location string
- occurred_at datetime
- user_id float
- user_type float

Data Fields Source

	count	week_1	week_2	week_3	week_4	week_5
1	317	64	27	19	15	19

Showing rows 1-1 of 1 Columns 6 Size 48B Run a few seconds ago Returned in 827ms

Trinity Dashboard x Trinity Dashboard x Widget x Editor | Mode x +

https://app.mode.com/editor/rachitt01/reports/53f1443985e1/queries/91a7972bcf29

M Rachit x Untitled Report
Report Embed Share View

Untitled Report

Report Builder
Add Notebook

DATA
Query 1
+

Run Limit 100 Format View history

```
19 sum(CASE WHEN retention_week = 4 then 1 else 0 end) as week_4,  
20 sum(CASE WHEN retention_week = 5 then 1 else 0 end) as week_5  
21 from  
22 (SELECT  
23 a.user_id,a.signup_week,b.engagement_week,  
24 b.engagement_week - a.signup_week as retention_week  
25 FROM  
26 (  
27 (SELECT  
28 DISTINCT user_id,EXTRACT(week from occurred_at) AS signup_week  
29 FROM tutorial.yammer_events  
30 WHERE event_type= 'signup_flow'  
31 AND event_name = 'complete_signup'  
32 AND EXTRACT(week FROM occurred_at) = 18  
33 )a  
34 LEFT JOIN  
35 (SELECT  
36 Distinct user_id,  
37 EXTRACT(week from occurred_at) AS engagement_week  
38 FROM tutorial.yammer_events  
39 WHERE event_type= 'engagement'  
40 )b  
41 ON  
42 a.user_id = b.user_id  
43 )  
44 ORDER BY a.user_id  
45 )d
```

Succeeded in 817ms

Data Fields Source

	count	week_1	week_2	week_3	week_4	week_5
1	317	64	27	19	15	19

Page 1 of 1 Showing rows 1-1 of 1 Columns 6 Size 488 Run a few seconds ago Returned in 827ms

Mode Public Warehouse (everyone)

Search public (everyone)

- tutorial.yammer_users
- tutorial.yammer_events
- tutorial.yammer_emails

tutorial

- aapl_historical_stock_price
- accounts
- animal_crossing_achievements
- animal_crossing_art
- animal_crossing_bags
- animal_crossing_bottoms
- animal_crossing_construction
- animal_crossing_dress_up
- animal_crossing_fencing
- animal_crossing_fish

yammer_events

- device string
- event_name string
- event_type string
- location string
- occurred_at datetime
- user_id float
- user_type float

Trinity Dashboard x Trinity Dashboard x Editor | Mode x My Drive - Google Drive x +

app.mode.com/editor/rachitt01/reports/53f1443985e1/queries/91a7972bcf29

M Rachit x Untitled Report
Report Embed Share View

Untitled Report

Report Builder
Add Notebook

DATA
Query 1
+

Run Limit 100 Format View history

```
8 Question No 4:  
9 To measure the activeness of a user. Measuring if the user finds quality in a product/service weekly.  
10 Your Task:  
11 Calculate the weekly engagement per device?  
12 **/  
13 SELECT  
14 EXTRACT(year from occurred_at) as year_num,  
15 EXTRACT(week from occurred_at) as week_num,  
16 device,  
17 COUNT(distinct user_id)  
18 From  
19 tutorial.yammer_events  
20 where  
21 event_type='engagement'  
22 group by  
23 1,2,3  
24 order by  
25 1,2,3
```

Succeeded in 695ms

Data Fields Source

	year_num	week_num	device	count
1	2014	18	acer aspire desktop	10
2	2014	18	acer aspire notebook	21
3	2014	18	amazon fire phone	4
4	2014	18	asus chromebook	23
5	2014	18	dell inspiron desktop	21
6	2014	18	dell inspiron notebook	49
7	2014	18	hp pavilion desktop	15
8	2014	18	htc one	16
9	2014	18	ipad air	30
10	2014	18	ipad mini	21
11	2014	18	iphone 4s	21
12	2014	18	iphone 5	70

Page 1 of 1 Showing rows 1-100 of 100 Columns 4 Size 4KB Run a few seconds ago Returned in 705ms

Mode Public Warehouse (everyone)

Search public (everyone)

- tutorial.yammer_users
- tutorial.yammer_events

tutorial

- aapl_historical_stock_price
- accounts
- animal_crossing_achievements
- animal_crossing_art
- animal_crossing_bags
- animal_crossing_bottoms
- animal_crossing_construction
- animal_crossing_dress_up
- animal_crossing_fencing
- animal_crossing_fish
- animal_crossing_floors

yammer_events

- device string
- event_name string
- event_type string
- location string
- occurred_at datetime
- user_id float
- user_type float

Trainity Dashboard

Trainity Dashboard

Editor | Mode

My Drive - Google Drive

app.mode.com/editor/rachitt01/reports/53f1443985e1/queries/91a7972bcf29

Update

Untitled Report

Report Builder

Add Notebook

DATA

Query1

Run

Limit 100

Format

View history

```
6
7
8 Question No 5:
9 Users engaging with the email service.
10 Your task:
11 Calculate the email engagement metrics?
12
13 SELECT
14 100.0*SUM(CASE WHEN email_cat='email_opened' THEN 1 ELSE 0 END)/SUM(CASE WHEN email_cat='email_sent' THEN 1 ELSE 0 END)
15 100.0*SUM(CASE WHEN email_cat='email_clicked' THEN 1 ELSE 0 END)/SUM(CASE WHEN email_cat='email_sent' THEN 1 ELSE 0 END)
16 FROM
17 (SELECT
18 *,
19 CASE
20 WHEN action IN ('sent_weekly_digest','sent_reengagement_email')
21 THEN 'email_sent'
22 WHEN action IN ('email_clickthrough')
23 THEN 'email_clicked'
24 WHEN action IN ('email_open')
25 THEN 'email_opened'
26 END AS email_cat
27 from tutorial.yammer_emails
28 )ab
```

Succeeded in 471ms

	email_open_rate	email_click_rate
1	33.5834	14.7899

Page 1 of 1

Showing rows 1-1 of 1

Columns 2

Size 32B

Run a few seconds ago

Returned in 481ms

Mode Public Warehouse (everyone)

Search public (everyone)

tutorial.yammer_users

tutorial.yammer_events

tutorial.yammer_emails

tutorial

aapl_historical_stock_price

accounts

animal_crossing_achievements

animal_crossing_art

animal_crossing_bags

animal_crossing_bottoms

animal_crossing_construction

animal_crossing_dress_up

animal_crossing_fencing

animal_crossing_fish

yammer_events

device

event_name

event_type

location

occurred_at

user_id

user_type

CASE STUDY-1

Eventhough I was unable to do I have created a table manually by querying

Unable to solve it further.

Trainity Dashboard

Trainity Dashboard

SQL Case Study-2 D

Editor | Mode

DB Fiddle - SQL Data

Convert table to SQL

SQL Dates and Times

+

db-fiddle.com

Update

Database: MySQL v5.7

Run

Save

Load Example

Collaborate

Sign in

Have any feedback?

Fiddle Title

50 characters remaining.

Fiddle Description

300 characters remaining.

Private Fiddle

Upgrade to PRO

50% OFF for Early Adopters

Show Keyboard Shortcuts

Schema SQL

```
1 CREATE TABLE job_data (  
2   ds DATE NOT NULL,  
3   job_id INT NOT NULL,  
4   actor_id INT NOT NULL,  
5   eventt VARCHAR(10),  
6   languagee VARCHAR(10),  
7   timespent INT NOT NULL,  
8   organization VARCHAR(2)  
9 );  
10 INSERT INTO job_data (ds, job_id, actor_id,  
11   eventt,languagee,timespent,organization)  
12 VALUES  
13 ('2020-11-30', 21, 1001, 'skip', 'English', 15, 'A'),  
14 ('2020-11-30', 22, 1006, 'transfer', 'Arabic', 25, 'B'),  
15 ('2020-11-29', 23, 1003, 'decision', 'Persian', 20, 'C'),  
16 ('2020-11-28', 23, 1005, 'transfer', 'Persian', 22, 'D'),  
17 ('2020-11-28', 25, 1002, 'decision', 'Hindi', 11, 'B'),  
18 ('2020-11-27', 11, 1007, 'decision', 'French', 104, 'D');
```

Text to DDL

Query SQL

```
1 select * from job_data;
```

Results

Copy as Markdown

Query #1 Execution time: 1ms

ds	job_id	actor_id	eventt	languagee	timespent	organization
2020-11-30	21	1001	skip	English	15	A
2020-11-30	22	1006	transfer	Arabic	25	B
2020-11-29	23	1003	decision	Persian	20	C
2020-11-28	23	1005	transfer	Persian	22	D
2020-11-28	25	1002	decision	Hindi	11	B

auth0

by Okta

What would you do with 33% less development time? Sign up free and save time with Auth0. ads via Carbon

DB Fiddle - Crafted with by Status200 in the United Kingdom.

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