Project no 2

INSTAGRAM USER ANALYTICS

SQL Fundamentals

Project description:-

The main purpose of the Instagram user analytics is to derive a conclusion as to how to improve the user interaction among its users and also to provide the companies the data required for them to use the platform for marketing.

Approach:-

The SQL queries were used to solve the required tasks of the project which were taught in the learning.Instead of converting the word file to flat text csv I have just copied and pasted the entire dataset into the workbench which created the database then started working with it.

Tech-Stack Used:-

I have used MYSQL80 the latest version of the MYSQL workbench as suggested in the project,following all the setups all the required installations have been done.

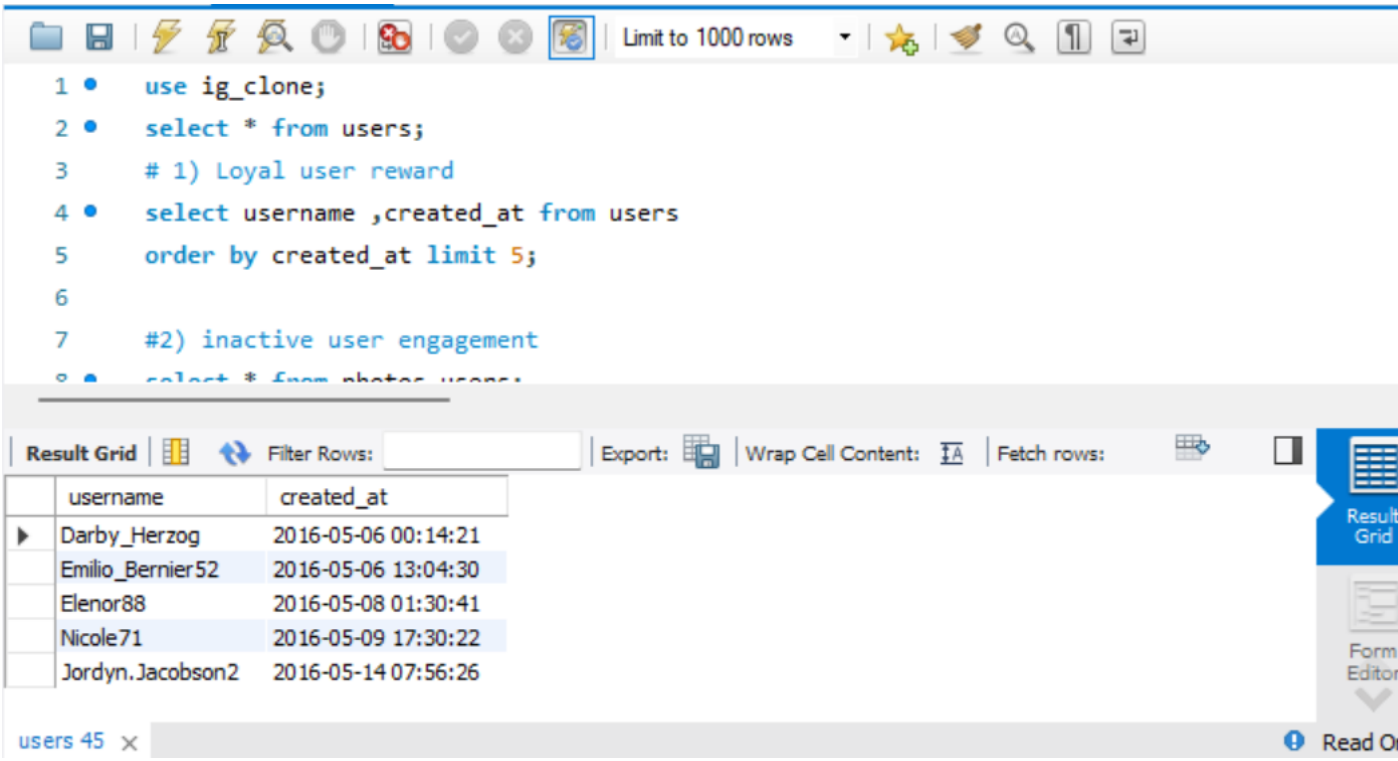
Analysis performed.

SQL Tasks

A) Marketing analysis;

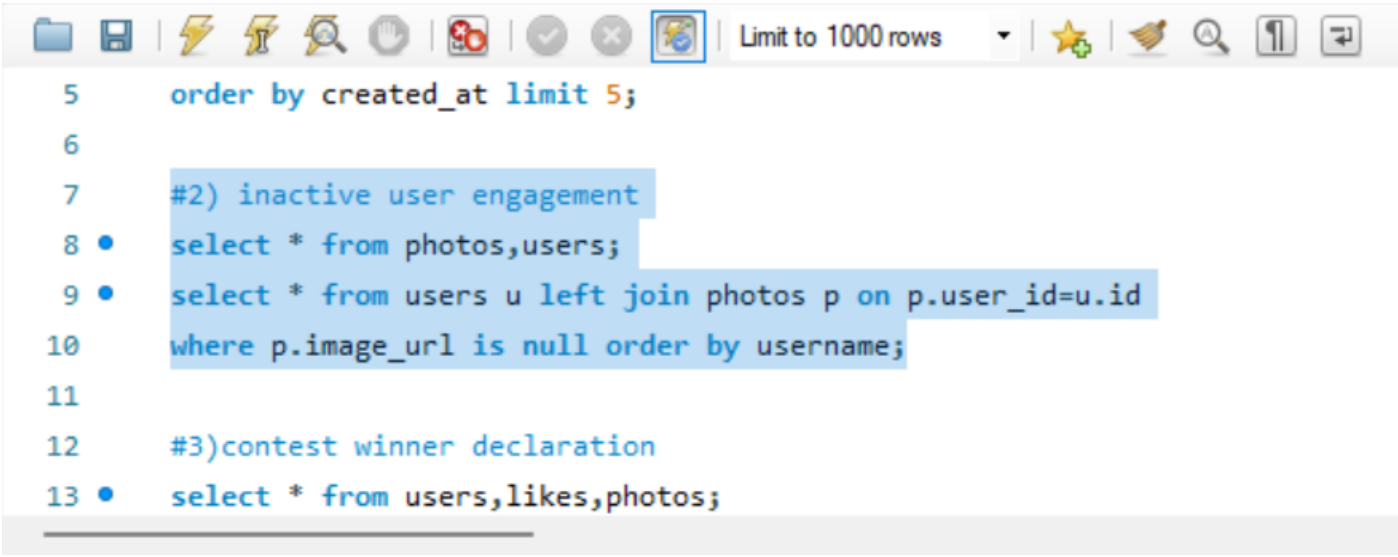
1)Loyal User reward;

To get the oldest users the created_at from the users table is used and sorted in ascending order through registered dates. The list is limited to 5 to get the five old users.



2)Inactive user engagement

We have used the left join function from photos table to users table to get the users with null posts.

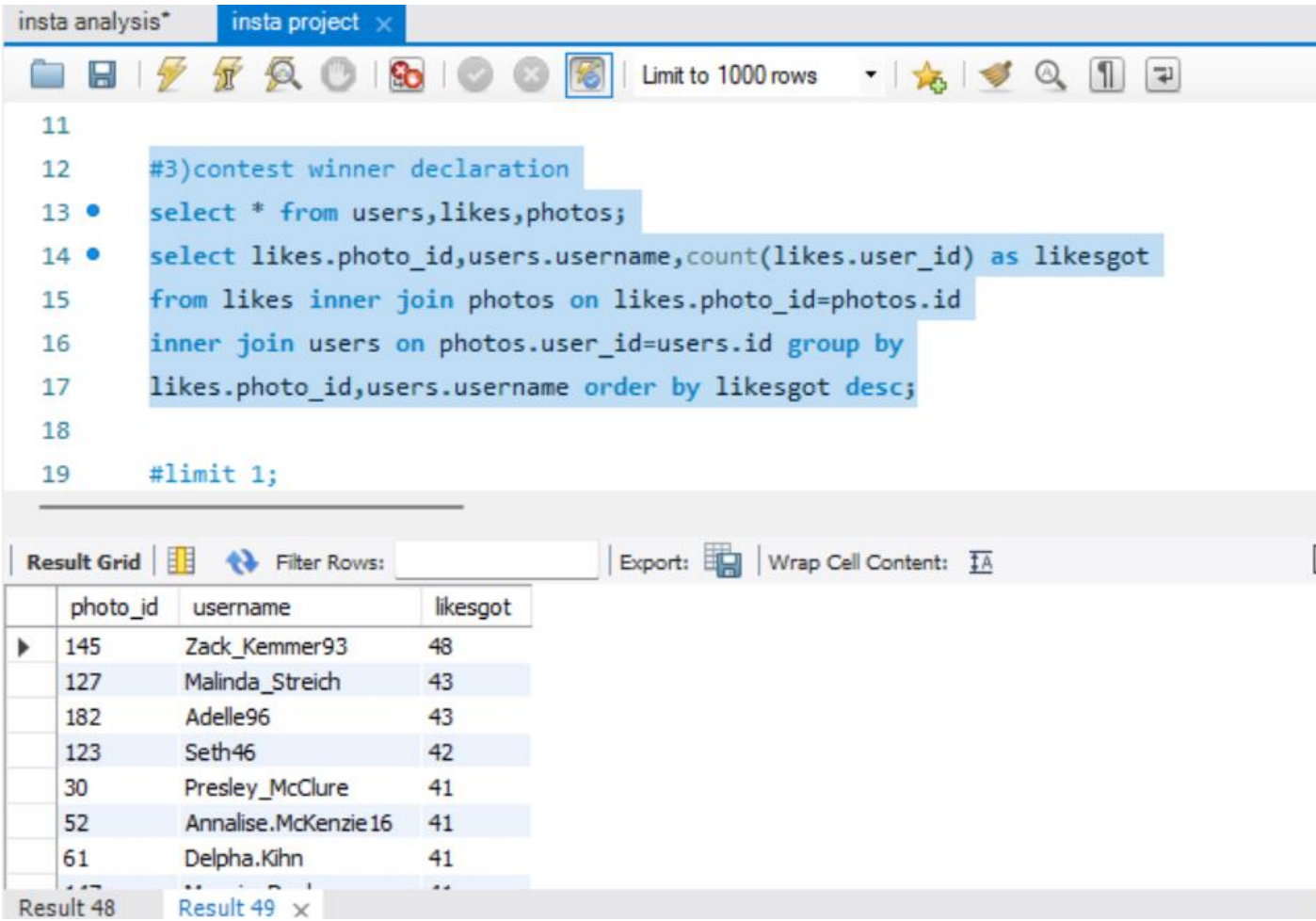


	A	B	C	D	E	F	G	H
	id	username	created_a	id	image_url	user_id	created_dat	
	5	Aniya_Ha	########	NULL	NULL	NULL	NULL	
	83	Bartholon	########	NULL	NULL	NULL	NULL	
	91	Bethany2(	########	NULL	NULL	NULL	NULL	
	80	Darby_He	########	NULL	NULL	NULL	NULL	
	45	David.Osi	########	NULL	NULL	NULL	NULL	
	54	Duane60	########	NULL	NULL	NULL	NULL	
	90	Esmeralda	########	NULL	NULL	NULL	NULL	
	81	Esther.Zul	########	NULL	NULL	NULL	NULL	
0	68	Franco_Ke	########	NULL	NULL	NULL	NULL	
1	74	Hulda.Ma	########	NULL	NULL	NULL	NULL	
2	14	Jaclyn81	########	NULL	NULL	NULL	NULL	
3	76	Janelle.Ni	########	NULL	NULL	NULL	NULL	
4	89	Jessyca_W	########	NULL	NULL	NULL	NULL	
5	57	Julien_Sch	########	NULL	NULL	NULL	NULL	
5	7	Kasandra_	########	NULL	NULL	NULL	NULL	
7	75	Leslie67	########	NULL	NULL	NULL	NULL	
3	53	Linnea59	########	NULL	NULL	NULL	NULL	
9	24	Maxwell.H	########	NULL	NULL	NULL	NULL	
0	41	Mckenna1	########	NULL	NULL	NULL	NULL	
1	66	Mike.Auer	########	NULL	NULL	NULL	NULL	
2	49	Morgan.K	########	NULL	NULL	NULL	NULL	
3	71	Nia_Haag	########	NULL	NULL	NULL	NULL	
4	36	Ollie_Ledr	########	NULL	NULL	NULL	NULL	
5	34	Pearl7	########	NULL	NULL	NULL	NULL	
5	21	Rocio33	########	NULL	NULL	NULL	NULL	
7	25	Tierra.Tra	########	NULL	NULL	NULL	NULL	
3								
9								

Here are the list of users with zero photos uploaded.

3)Contest winner declaration:

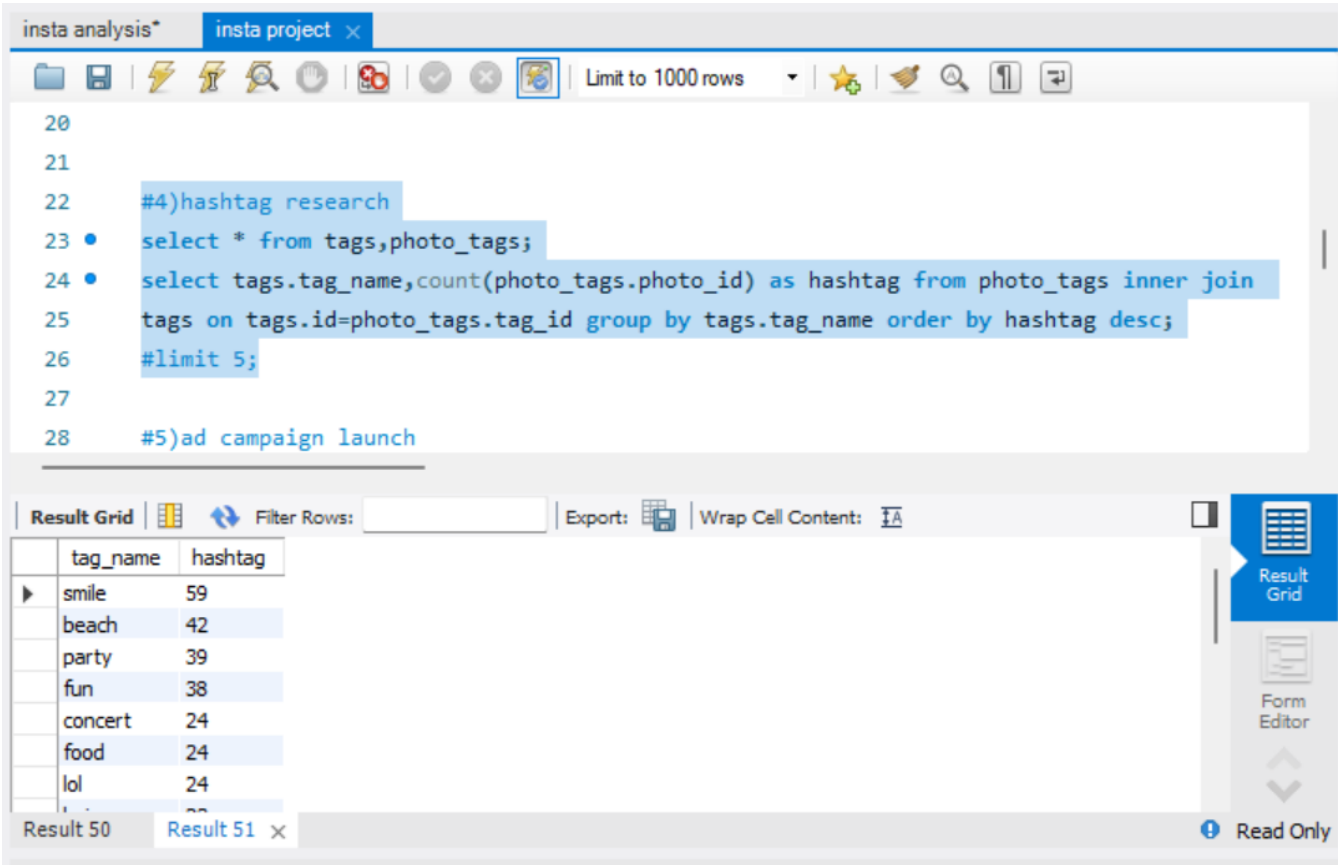
All the 3 tables i.e users,likes,photos are taken and the number of likes for a picture is counted using the count function and inner join through the photo_id which is unique for each photo uploaded.



Here zack_kemmer93 had the highest number of likes for a photo which makes him the clear winner of the contest.

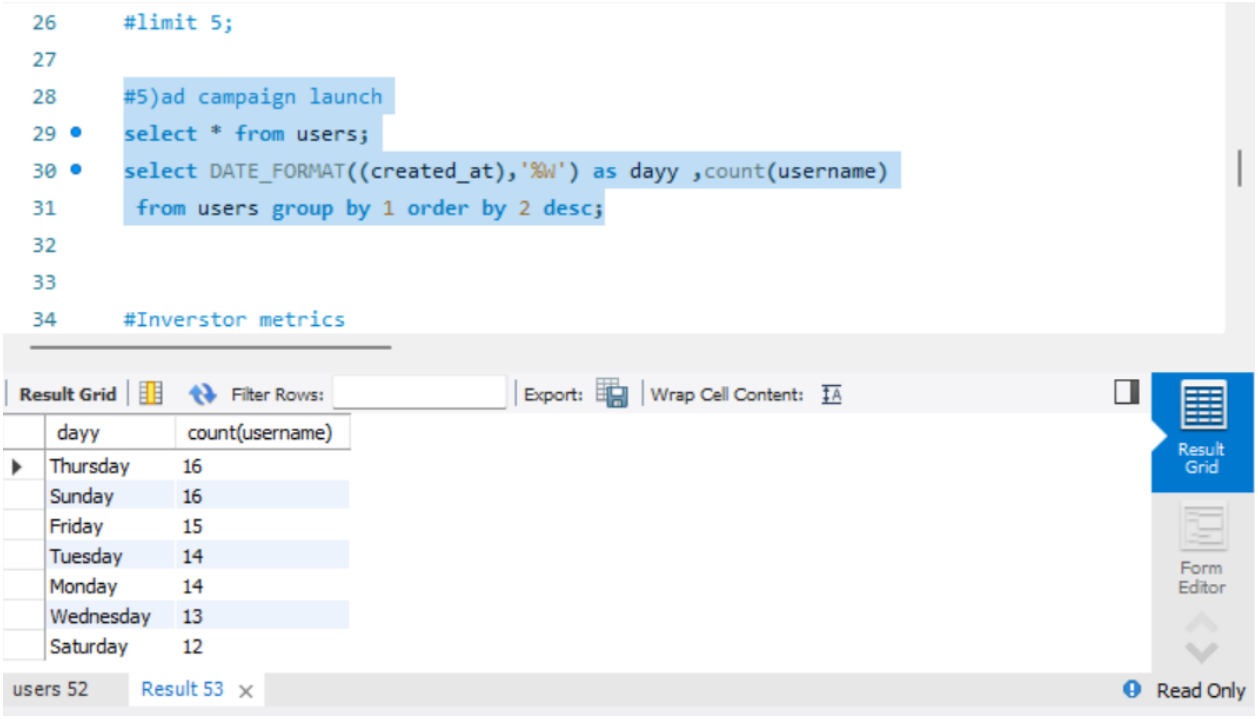
4)Hashtag research

The count function is used to count the maximum used hashtags from each photo uploaded the hashtages are collected and then check the hashtag name in the hashtag table.



5)Ad campaign launch

The day which is most used by the users to enter the platform is calculated using the created_at column from the users table and also the date_format is used to derive the specific day of the date here.the list is ordered from highest joins to lowest.



```
26    #limit 5;
27
28    #5)ad campaign launch
29    select * from users;
30    select DATE_FORMAT((created_at),'%W') as dayy ,count(username)
31     from users group by 1 order by 2 desc;
32
33
34    #Inverstor metrics
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

dayy	count(username)
Thursday	16
Sunday	16
Friday	15
Tuesday	14
Monday	14
Wednesday	13
Saturday	12

Result Grid | Form Editor

users 52 | Result 53 | Read Only

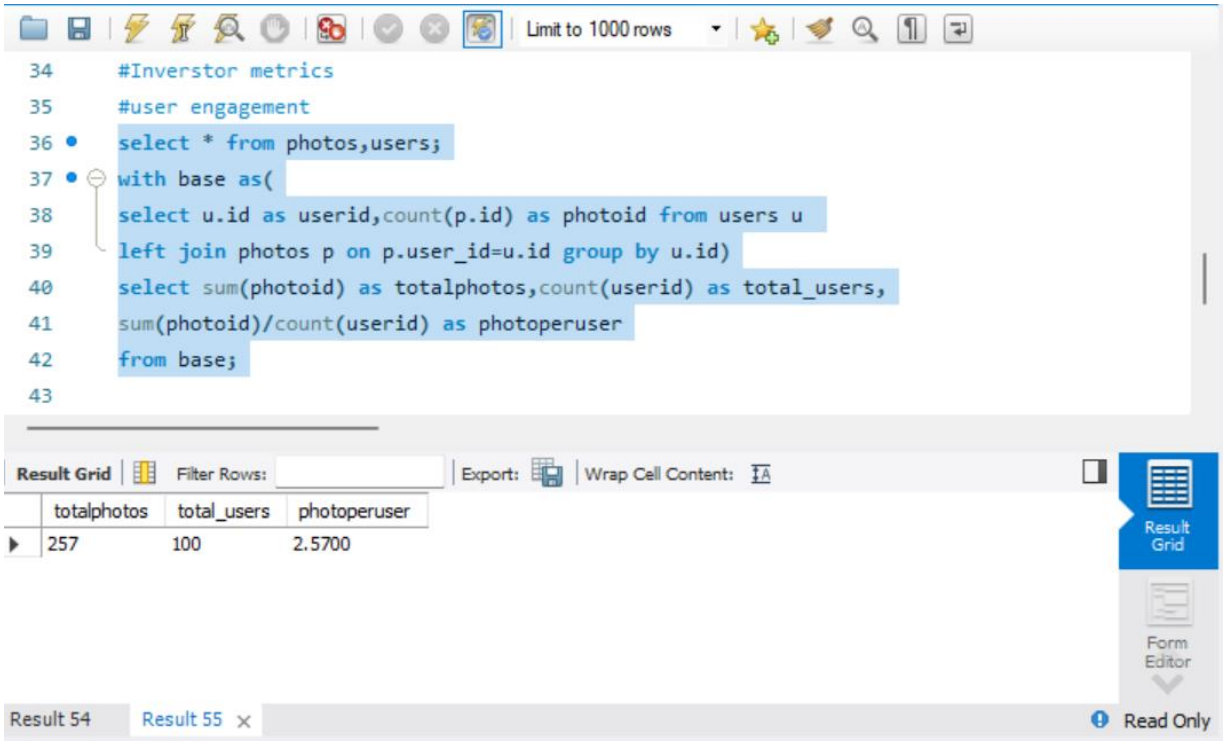
B)Investor metrics

1)User engagement:

Here the average number of posts has to be calculated from the users table the total number of users is 100 while total photos posted are 257 which gives an average of 2.57.

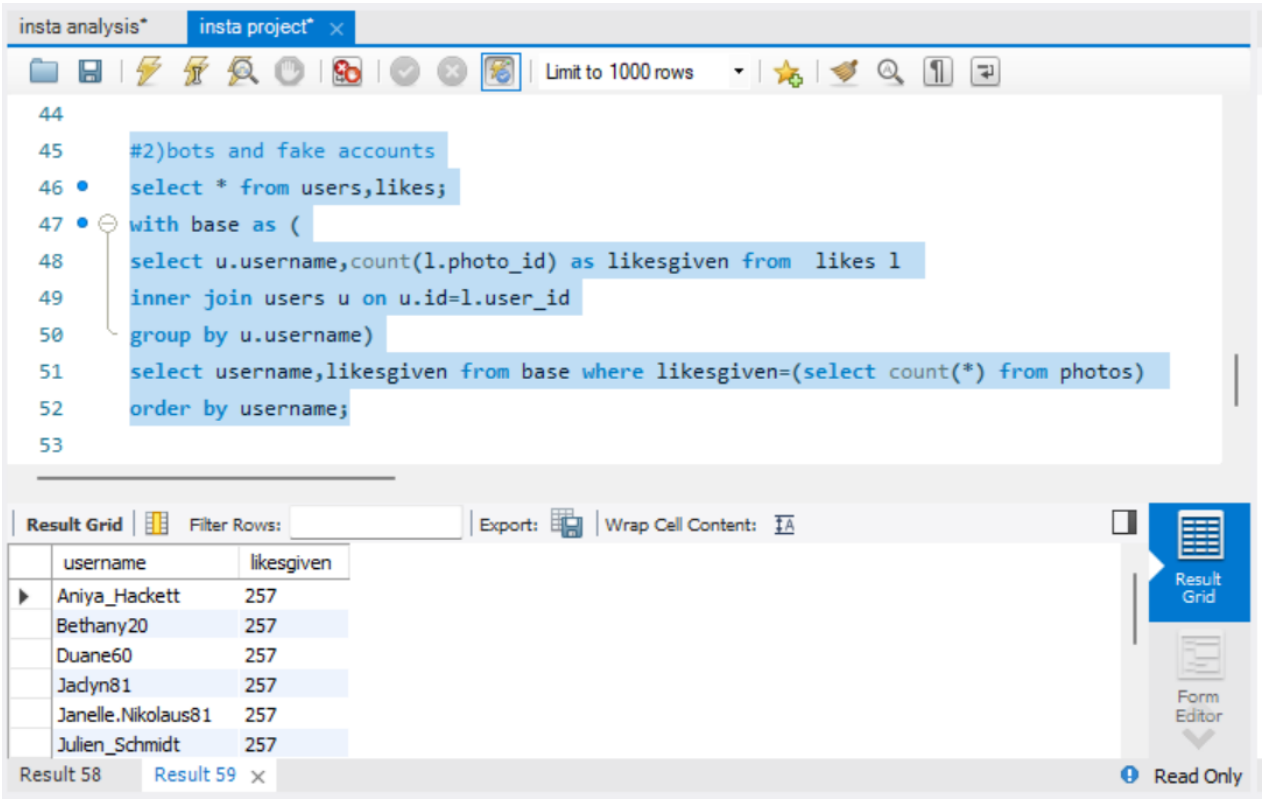
This is derived using the SQL queries

Total photos are counted using sum function adnleft joined to users in the user table and then divided to get average



2)Bots are fake accounts:

From the users table and likes table the users who have liked all the photos posted are calculated since the total photos posted summed up to be 257 the users who have liked all 257 photos are listed and grouped by the usernames. It turned out to be there are 13 bots or fake accounts



Insights:

The process of left join,inner join and then counting the total number of summing up gave me the skills to deal with the relational databases.

The dateformat suntion which converted the dayth number of week into day of the week was helpful

Summing and counting functions helped in completing the tasks.

Result:

Completed all the tasks using SQL .This tasks provided me with knowledge of MYSQL queries and how to deal with the relational databases