INSTAGRAM USER ANALYTICS

PROJECT DESCRIPTION

Here we are trying to build a system through which we will be able to build better business opportunities and better client interaction. Through this user analytics we will measure certain parameters which in turn will help us grow as a company and also most certainly help in understanding our users. By this way we would also be able to recommend best of our services to our users. These users analytics are the foundation pillar of the success of any organisation. All the activities performed by users, like and dislikes of users every minute detail is paid attention and hence helps in creating a best possible service to the users.

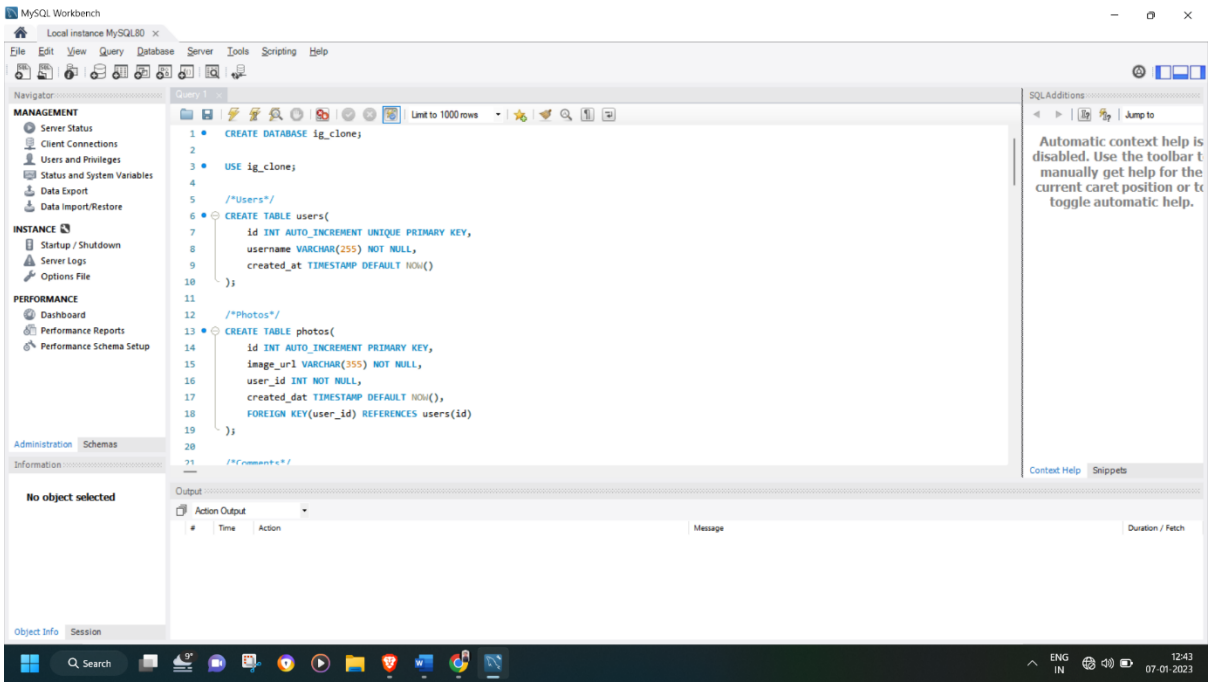
In this project we are going to work out with a dataset of instagram users which contains various parameters such as registering on the app, liking a photo, using hashtags etc. With all these provided data we would try to derive the outcomes desired from us.

APPROACH

I have tried to understand the dataset before trying to execute any of the query. I related each given data with what exactly I require to derive e.g. If I have been given the dataset of user registration and asked to find out the oldest user then I searched for the user having oldest date of registration. So over in all my approach was quite simple I just kept on connecting the dots to build these query list.

TECH-STACK

I had used MySQL Workbench 8.0 CE available in MySQL.com. It is a unified visual tool for database architects, developers and DBA's.



This is a screenshot of the interface of MySQL Workbench. The reason for using it is that it has very user friendly interface and it is also hassle free with all the provided services such as creating a database, administering it, modifying it etc. I have particulary used it to create a database named ig_clone and then I have used multiple queries to derive the outcome I required out of the given dataset.

INSIGHTS

I have gathered a great deal of knowledge from this assignment. I got a real exposure of how exactly an organisation works to get close to its client and generate the best revenue out of the services or goods it offers. The ways in which here it is mentioned about the requirement from the given dataset it give you the opportunity to map the data like I had to find the most used hashtags so first used the count function to get that which hashtags is used how many times and then arrange it in descending order using order by function to help get the top 5 hashtags which is most used. Certainly there were other function such as join function, max, limit etc. These functions help in deriving the sorted data out of such a huge provided data.

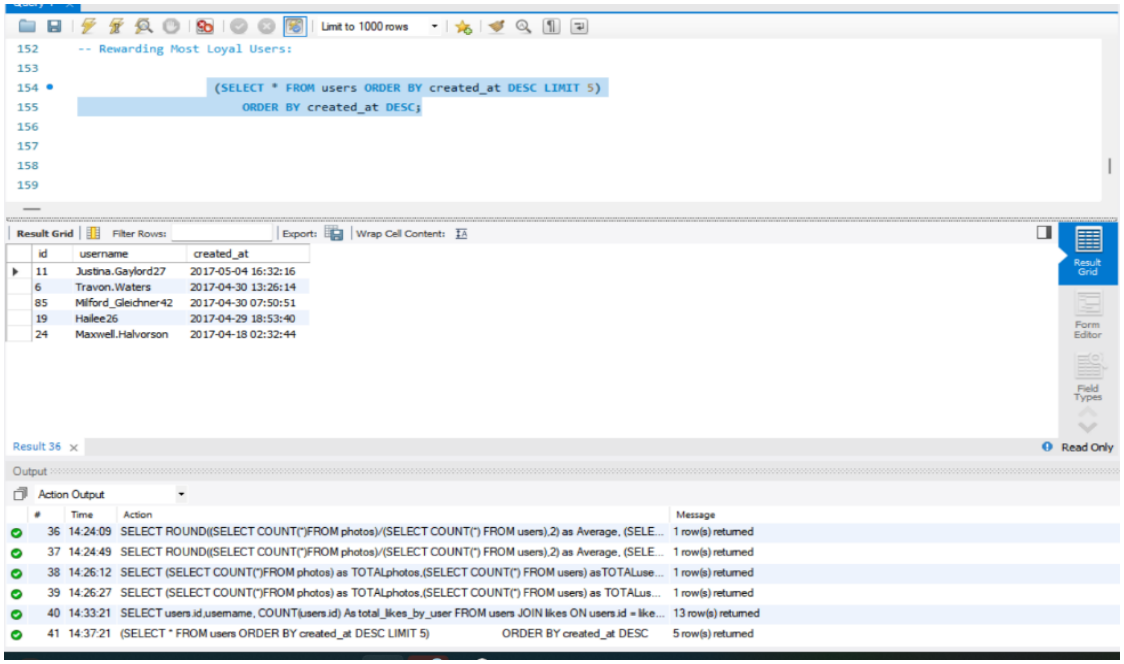
In short these queries help us in getting the exact same amount of data or information we require out of the whole dataset.

RESULT

A.) MARKETING

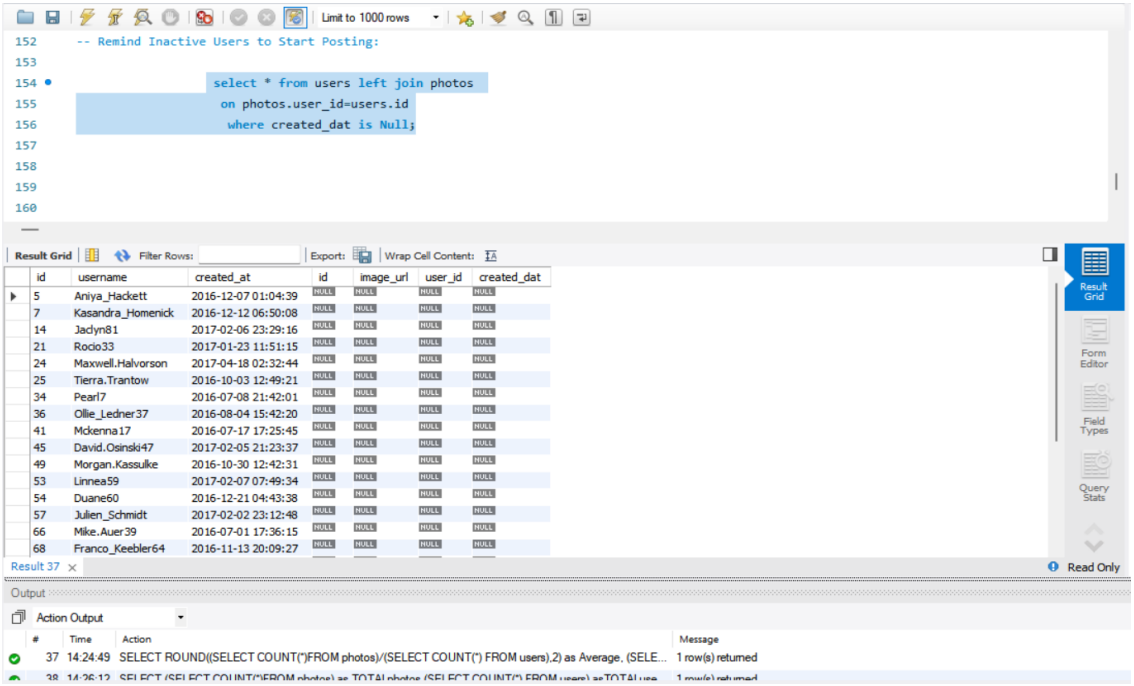
1.) Rewarding Most Loyal Users:

```
(SELECT * FROM users ORDER BY created_at DESC LIMIT 5)
ORDER BY created_at DESC;
```



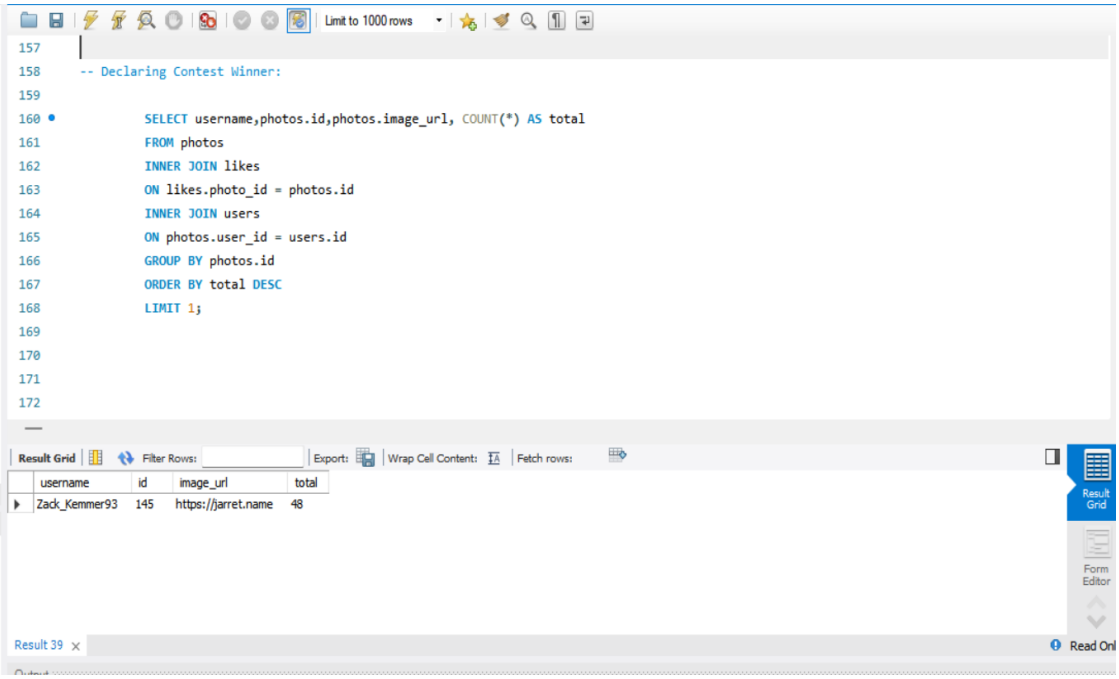
2.) Remind Inactive Users to Start Posting:

```
SELECT *
FROM users
LEFT JOIN photos ON users.id = photos.user_id
WHERE photos.id IS NULL;
```



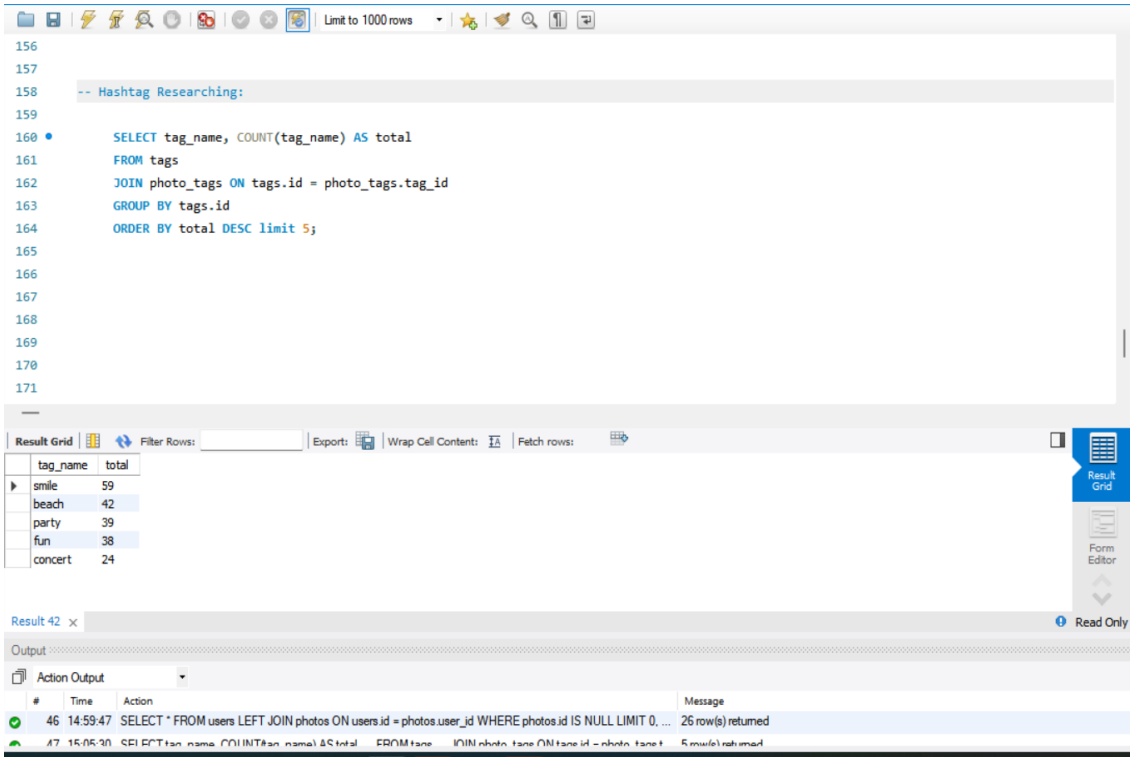
3.) Declaring Contest Winner:

```
SELECT username,photos.id,photos.image_url,
COUNT(*) AS total
FROM photos
INNER JOIN likes
ON likes.photo_id = photos.id
INNER JOIN users
ON photos.user_id = users.id
GROUP BY photos.id
ORDER BY total DESC
LIMIT 1;
```



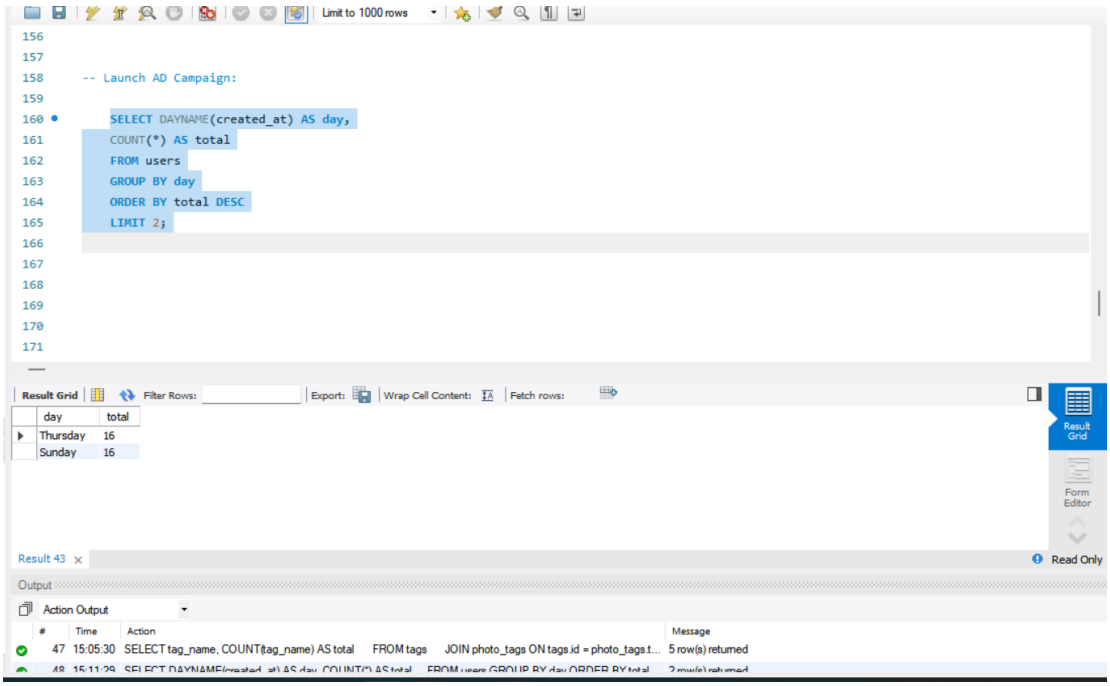
4.) Hashtag Researching:

```
SELECT tag_name, COUNT(tag_name) AS total
 FROM tags
 JOIN photo_tags ON tags.id = photo_tags.tag_id
 GROUP BY tags.id
 ORDER BY total DESC limit 5;
```



5.) Launch AD Campaign:

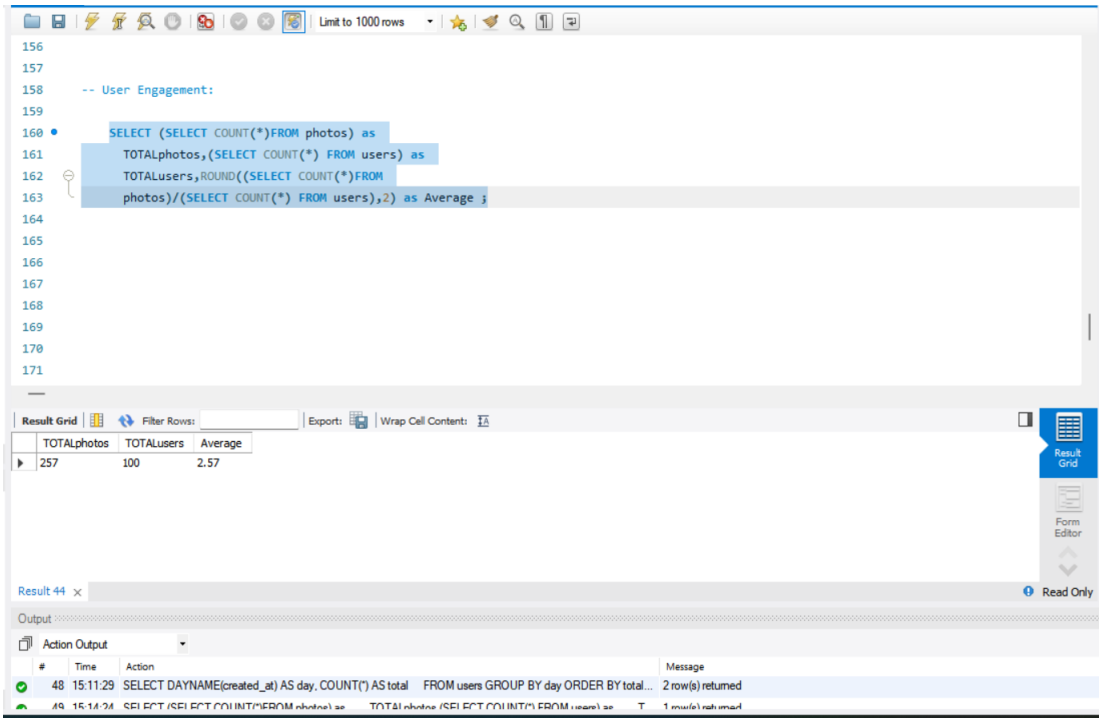
```
SELECT DAYNAME(created_at) AS day,
COUNT(*) AS total
FROM users
GROUP BY day
ORDER BY total DESC
LIMIT 2;
```



B.) INVESTOR METRICS

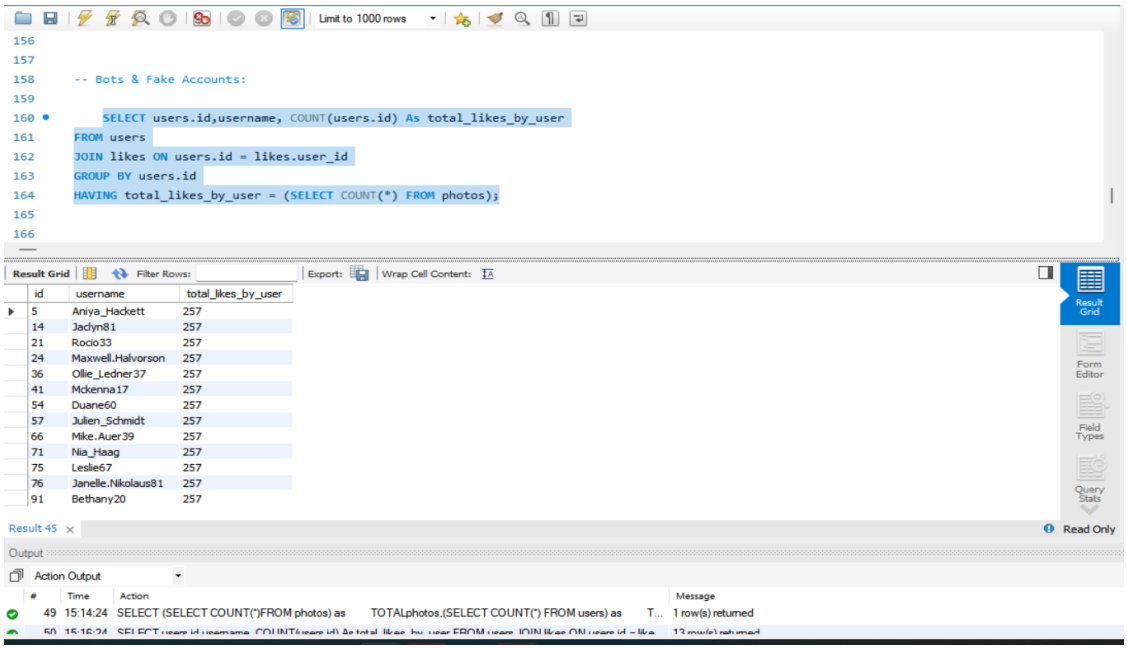
1.) User Engagement:

```
SELECT (SELECT COUNT(*)FROM photos) as
TOTALphotos,(SELECT COUNT(*) FROM users) as
TOTALusers,ROUND((SELECT COUNT(*)FROM
photos)/(SELECT COUNT(*) FROM users),2) as Average ;
```



2.) Bots & Fake Accounts:

```
SELECT users.id,username, COUNT(users.id) As
total_likes_by_user
FROM users
JOIN likes ON users.id = likes.user_id
GROUP BY users.id
HAVING total_likes_by_user = (SELECT COUNT(*)
FROM photos);
```



I have successfully been able to segregate the dataset with what I required using exact query to differentiate. I have rewarded the 5 oldest user using Instagram, I have found the list of inactive users of Instagram and pinned them to use it through a personalized email, I have successfully found the winner of most liked photo contest, I have found the top 5 trending hashtags, I have found the best possible day to upload an ad for the marketing team. Moreover for the stats I have also found whether the user are active or not finding the average post, I have also successfully found all the fake accounts to maintain Instagram's credibility.

It gave me a great amount of pleasure to complete the project I learned all the functions used in queries with a live implication it get etched in my memory easily, I also learnt about aggregate functions.

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