# PROJECT 2

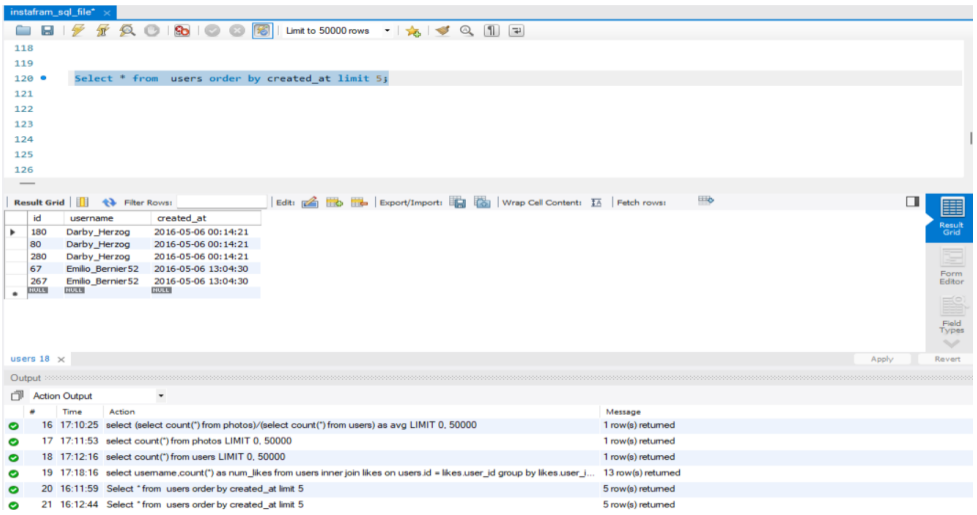
Instagram User Analytics

**SQL Tasks:**

## A) Marketing Analysis:

1. **Loyal User Reward:** The marketing team wants to reward the most loyal users, i.e., those who have been using the platform for the longest time.
   Your Task: Identify the five oldest users on Instagram from the provided database.

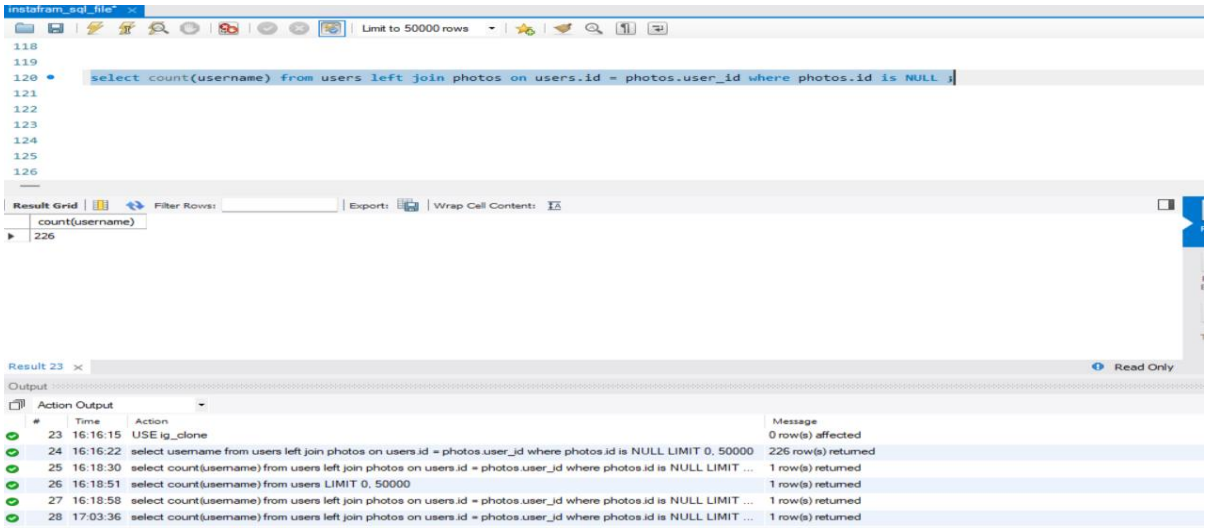
   Answer= **Select * from users order by created_at limit 5;**




2. **Inactive User Engagement:** The team wants to encourage inactive users to start posting by sending them promotional emails.
   Your Task: Identify users who have never posted a single photo on Instagram.

   Answer=

   **select count(username) from users left join photos on users.id = photos.user_id where photos.id is NULL ;**



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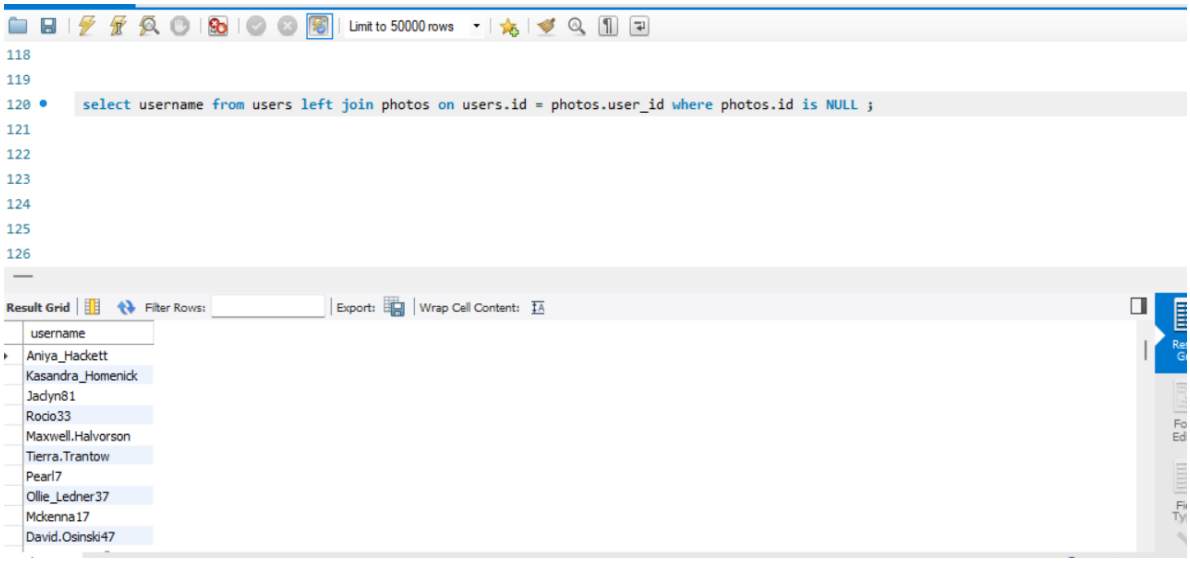



3. **Contest Winner Declaration:** The team has organized a contest where the user with the most likes on a single photo wins. Your Task: Determine the winner of the contest and provide their details to the team.

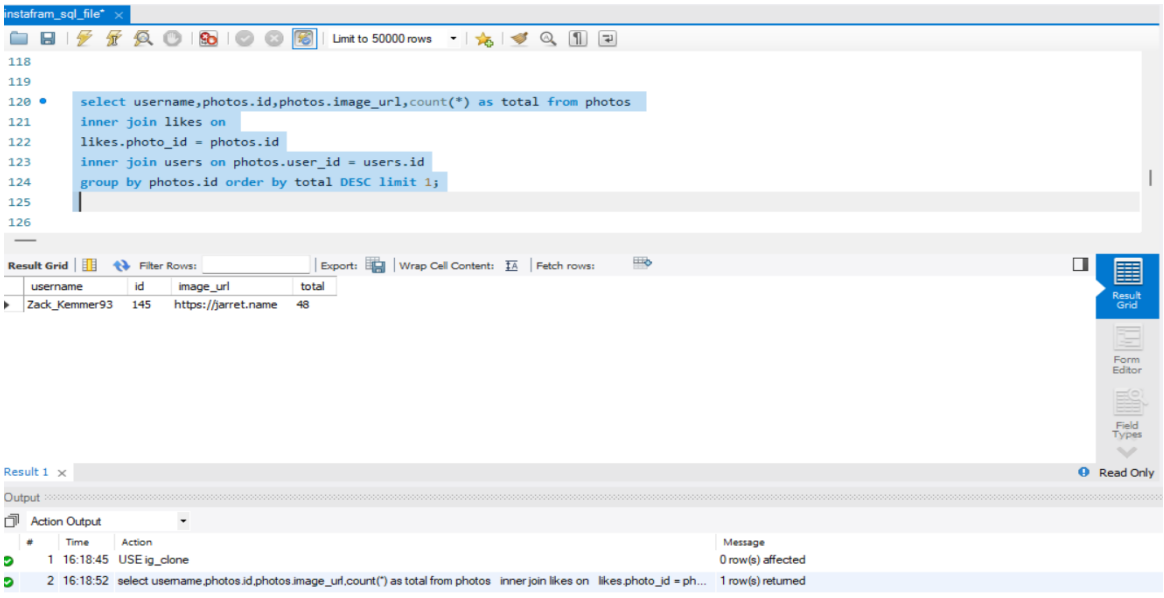
Answer= **select username,photos.id,photos.image_url,count(*) as total from photos**

**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;**



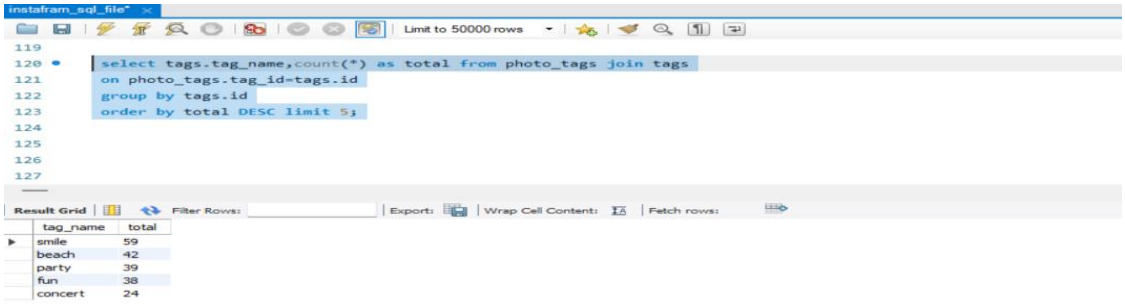
**4.Hashtag Research:** A partner brand wants to know the most popular hashtags to use in their posts to reach the most people.
Your Task: Identify and suggest the top five most commonly used hashtags on the platform.

Answer= **select tags.tag_name,count(*) as total from photo_tags join tags**

**on photo_tags.tag_id=tags.id**

**group by tags.id**

**order by total DESC limit 5;**



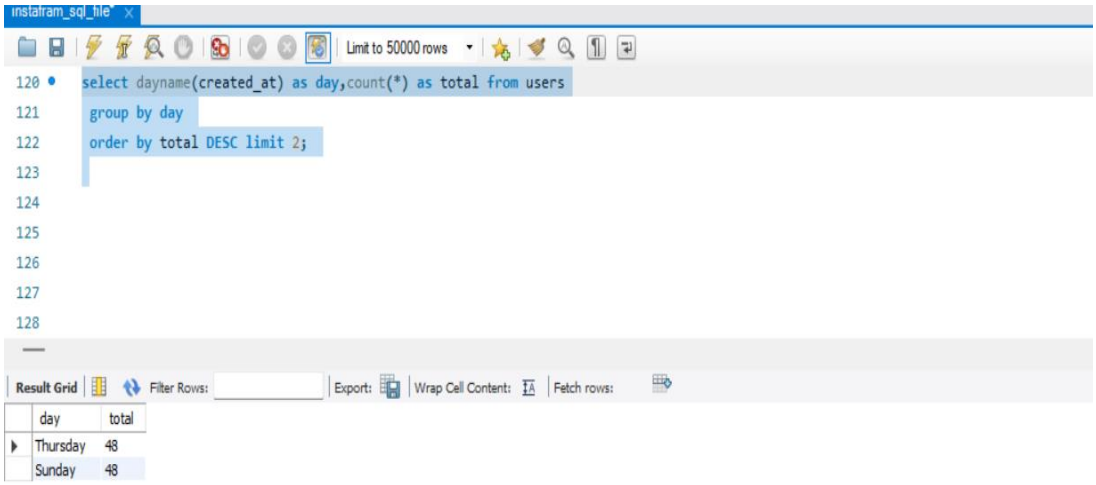


**5.Ad Campaign Launch:** The team wants to know the best day of the week to launch ads.
Your Task: Determine the day of the week when most users register on Instagram. Provide insights on when to schedule an ad campaign.

Answer= **select dayname(created_at) as day,count(*) as total from users**

**group by day**

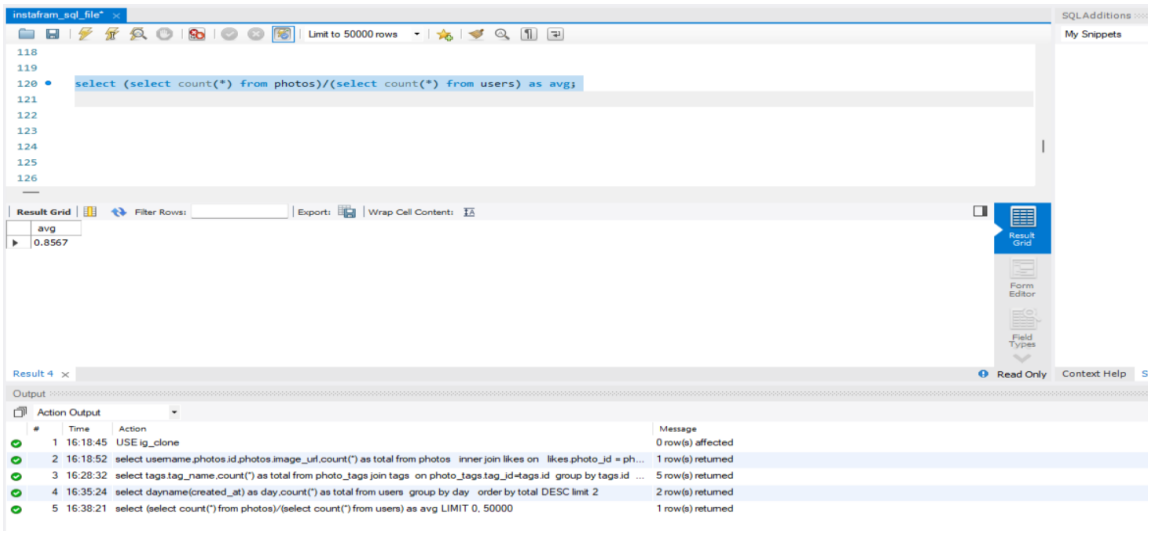
**order by total DESC limit 2;**



## B) Investor Metrics:

1. **User Engagement:** Investors want to know if users are still active and posting on Instagram or if they are making fewer posts.
   Your Task: Calculate the average number of posts per user on Instagram. Also, provide the total number of photos on Instagram divided by the total number of users.

   Answer= **select (select count(*) from photos)/(select count(*) from users) as avg;**



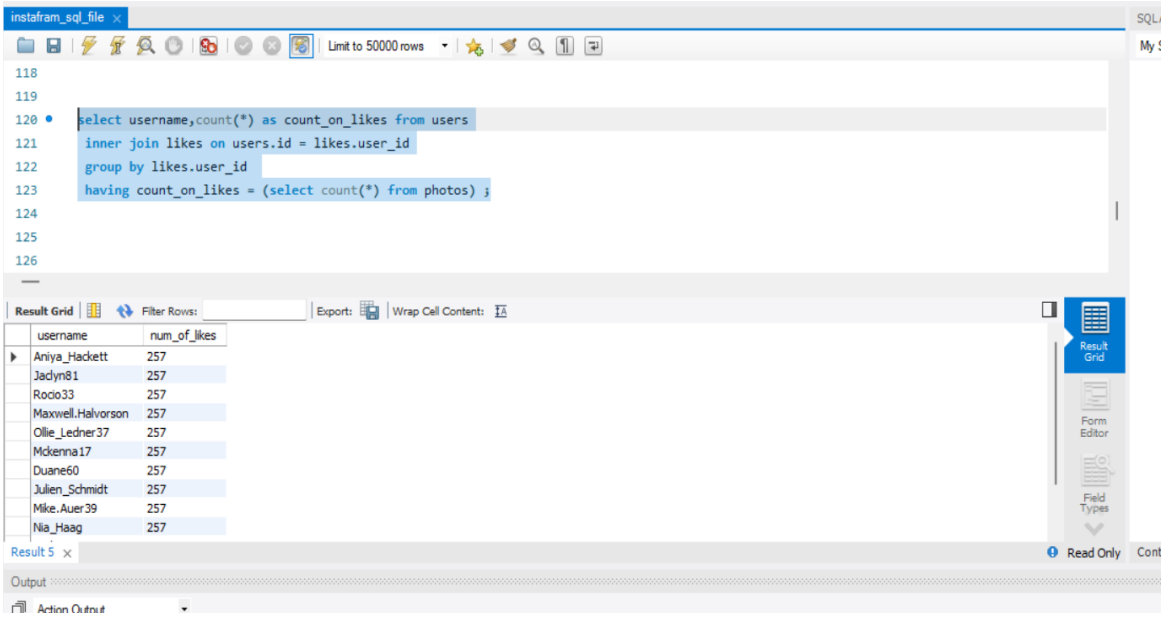

2. **Bots & Fake Accounts:** Investors want to know if the platform is crowded with fake and dummy accounts.
   Your Task: Identify users (potential bots) who have liked every single photo on the site, as this is not typically possible for a normal user.

   Answer= **select username,count(*) as count_on_likes from users**

   **inner join likes on users.id = likes.user_id**

   **group by likes.user_id**

   **having count_on_likes = (select count(*) from photos) ;**




## Approach:

The data set was given in the project . First I have created a data base and use that data base and then created a tables in it . And then inserted the values in the tables using MYSQL Workbench. I have created the table ,inserted the values and altered the table when needed. And them worked on the given queries. I used my sql skills to solve the problems. I worked on joins , i.e inner joins, outer joins etc.

## Tech Stack:

MYSQL WORKBENCH 8.0 CE

## Used:

I used MYSQL WORKBENCH for this project because I am very familiar with this tool, I am working for almost 4 years of now, I feel comfortable in writing the SQL queries. The software is very interactive and very easy to use . The compiler is so easy to run and interactive .

## Insights:

In  this project I came to learn more about joins , it was very helpful to work on and feel comfortable on joins queries. I worked on real-life Instagram data , Which is helped me to build confidence on the joins queries and also the fundamental queries.I made a beautiful insights from a data . while writing queries.

## Results:

The project was the best way to boost up with my sql knowledge. I have worked on joins , I came to know about the data cleaning and data formatting in this . I am able to get the desired output while writing the queries.