Instagram User Analytics:

Project Description:

The project involved analysing an Instagram database to get some meaningful insights for marketing team and investors. The primary goal was to use SQL queries to get analysis on question that could impact the overall business such as **potential fake accounts**, **days when most maximum users register**, **most used hashtags** etc.

Approach:

I started by understanding the structure and content of all the 5 tables, then I used SQL queries to get the most out of the database. I used joins, subqueries, grouping, CTEs etc to generate the desired result.

Tech-Stack Used:

I used **MySQL Workbench(8.0)** which is a graphical tool for MySQL, chosen for its user-friendly interface, efficient management of databases, and the ability to run, test, and debug queries in **a visual environment**.

Insights:

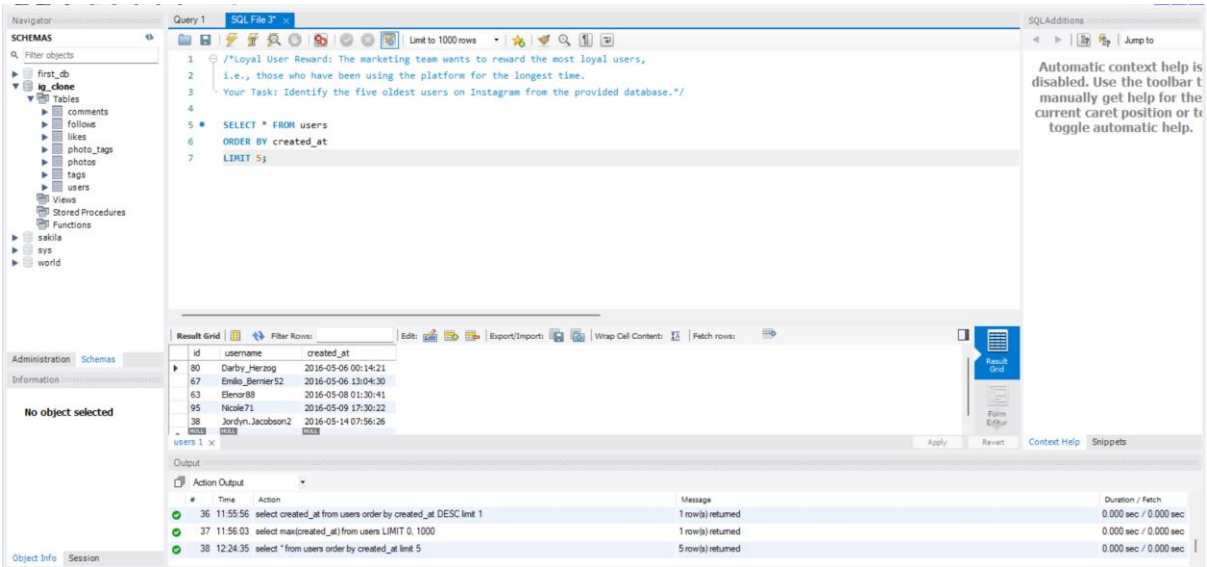
I Identified trends in user behaviour, such as **highest registration days** and the **average number of posts per user**, which can help optimize content and marketing strategies. Apart from it, I found **most popular hashtags** and **the most liked photos** that ultimately provides valuable information for **content creators** and marketing teams to increase engagement.
Moreover, I also got to know about **potential bots** or **fake accounts** by identifying an unusual behaviour like liking every photo on the platform.
Lastly, I evaluated overall platform activity, including user engagement levels and photo uploads.

Result:

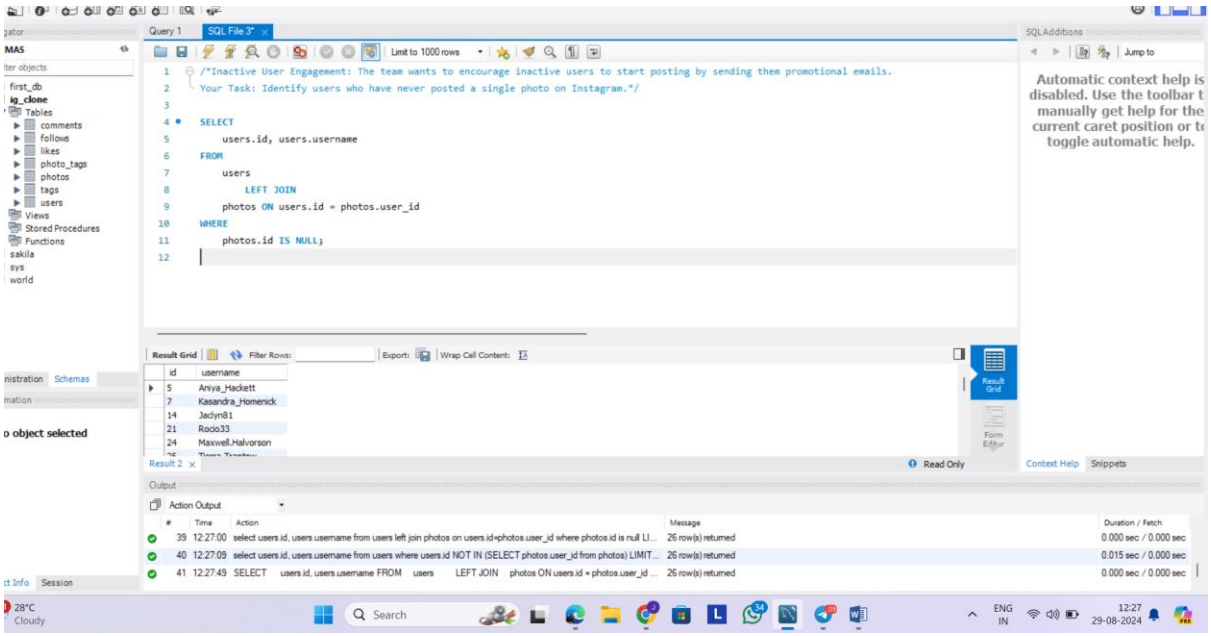
I would say this project successfully addressed all business questions, providing valuable insights for **user behaviour**, **engagement trends**, and **content popularity** on the platform. It also highlighted areas for improvement in user engagement and identified **potential issues like bot accounts**.

A) Marketing Analysis:

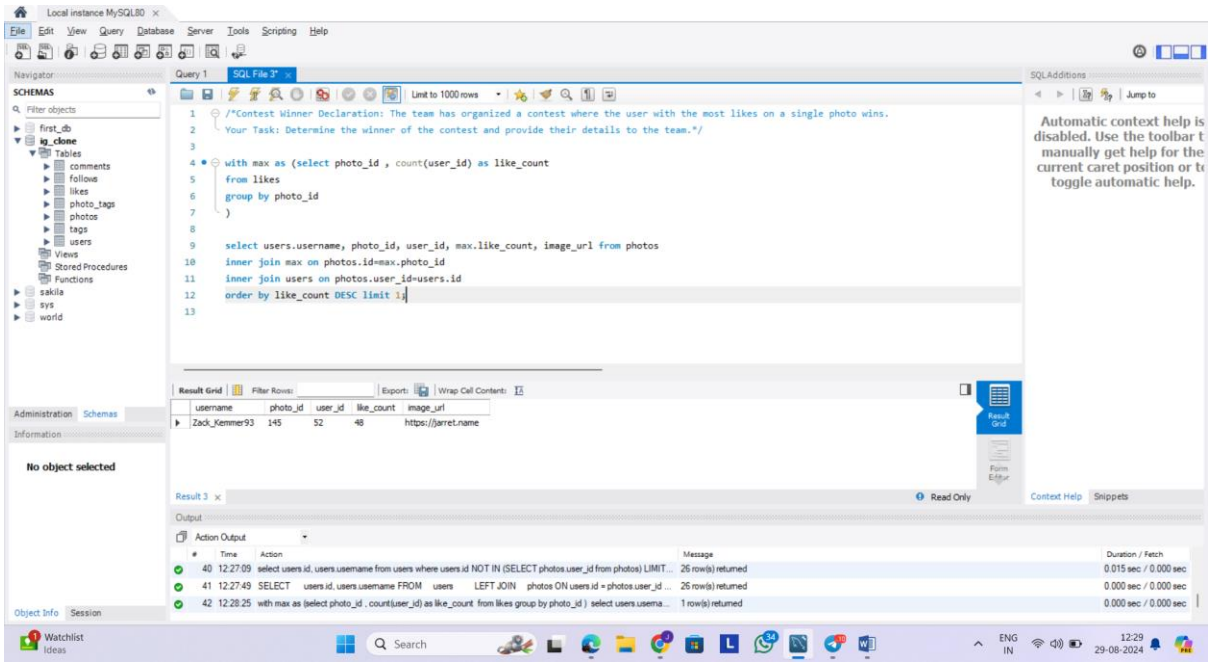
- **Loyal User Reward:** The marketing team wants to reward the most loyal users, i.e., those who have been using the platform for the longest time.
  Your Task: Identify the five oldest users on Instagram from the provided database.



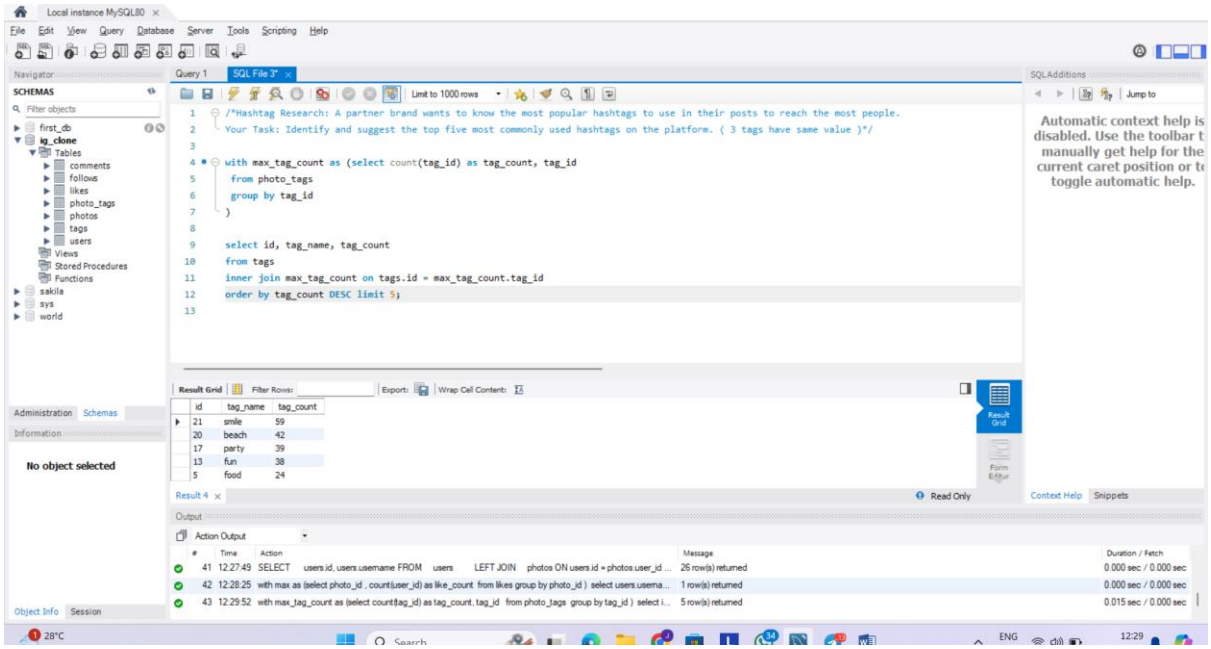
- **Inactive User Engagement:** The team wants to encourage inactive users to start posting by sending them promotional emails.
  Your Task: Identify users who have never posted a single photo on Instagram.



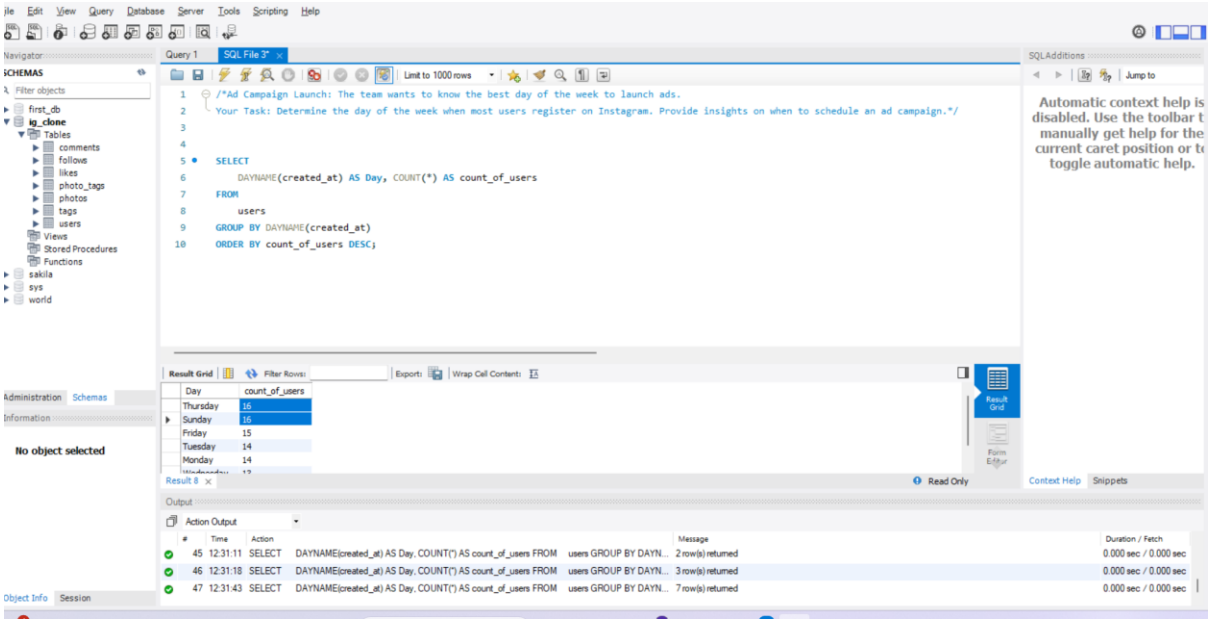
- **Contest Winner Declaration:** The team has organized a contest where the user with the most likes on a single photo wins.
  Your Task: Determine the winner of the contest and provide their details to the team.



- **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.

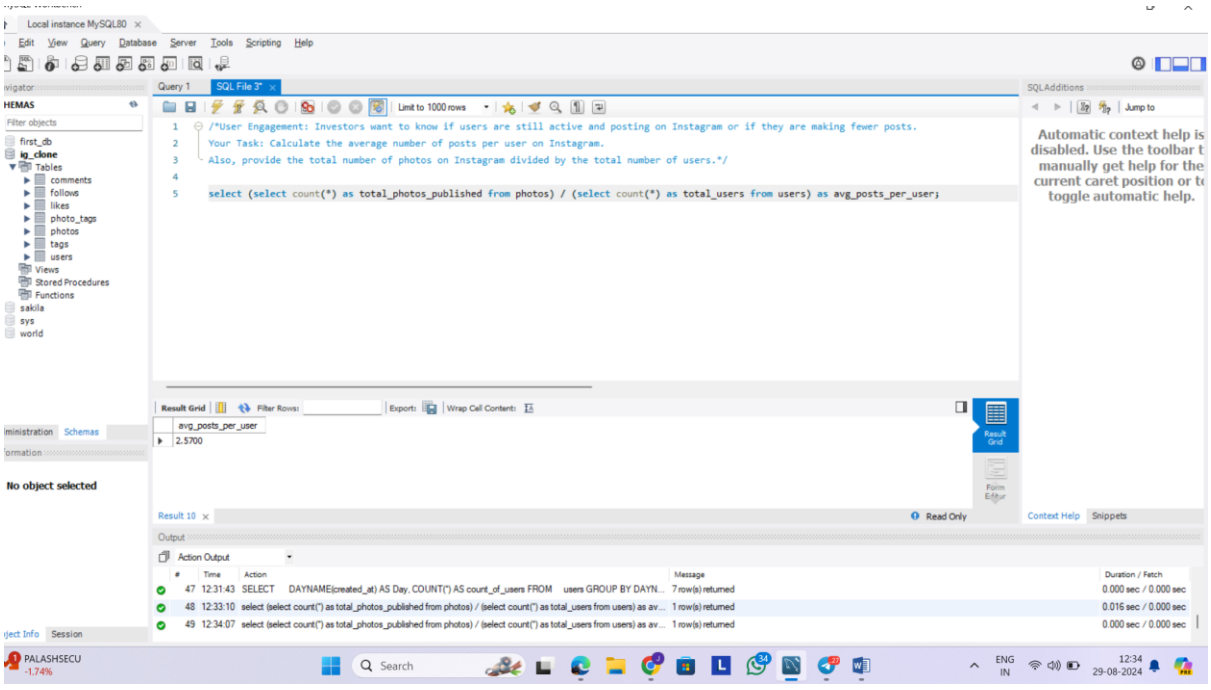


- **Ad Campaign Launch:** The team wants to know the best day of the week to launch ads.
  Your Task: Determine the day of the week when most users register on Instagram. Provide insights on when to schedule an ad campaign.



B) Investor Metrics:

- **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.



- **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.