INSTAGRAM USER ANALYTICS

PROJECT DESCRIPTION:

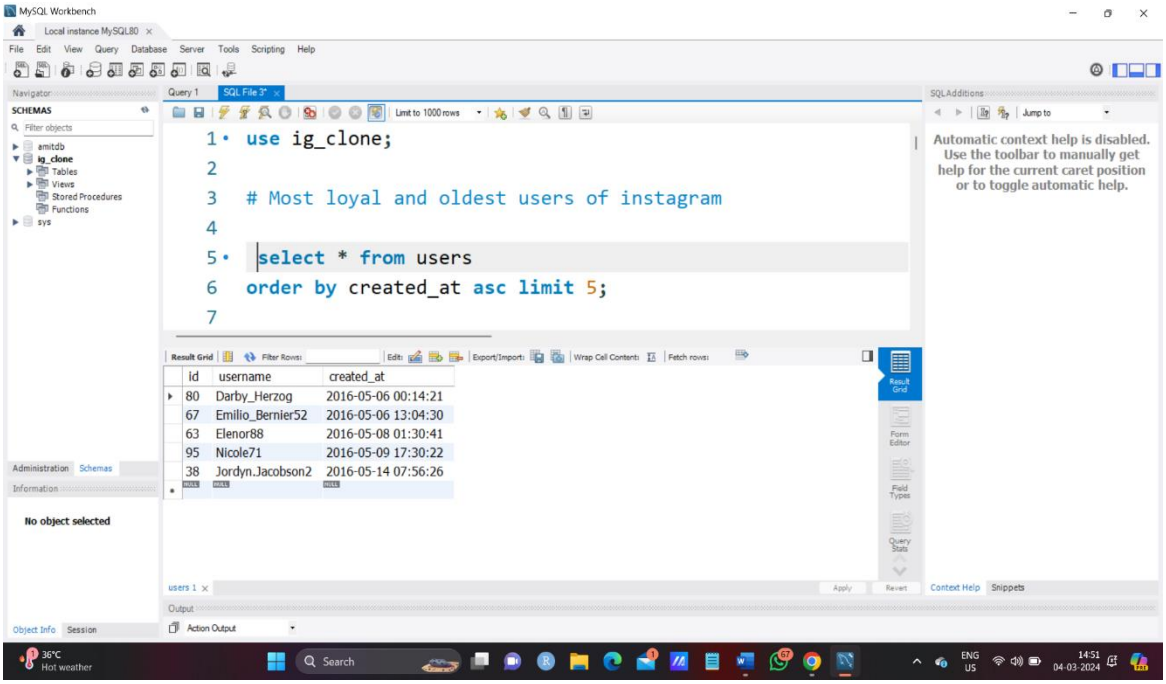
In this project, we would love to analyse the user interactions and engagement through the Instagram app so that we can have valuable insights through the data that will lead the different departments such as development, product and marketing teams to have better knowledge about the users and their engagement in the app. This will help the different departments to use these insights that they get from the data to contribute to the growth of business in the future in their own way. Here we use the data that is tracked down from users engagement in Instagram. Since the database contains different data that are related to each other and uploaded to the SQL Server we will use the SQL queries to get different insights from the data according to the need.

APPROACH:

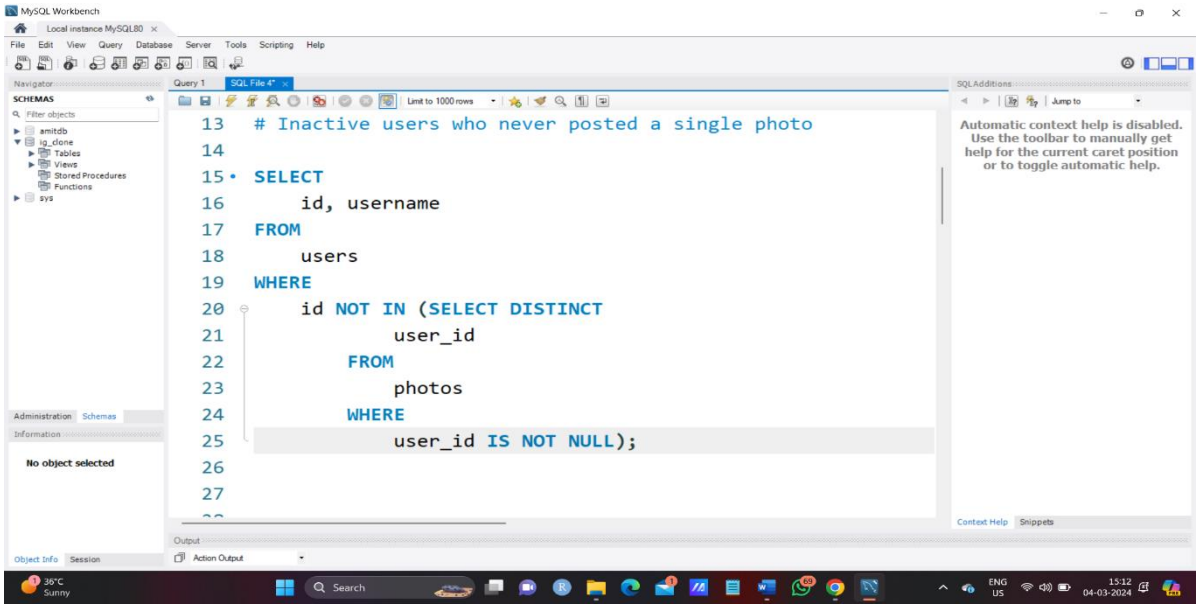
We used the SQL workbench and SQL Queries to gain valuable insights from the different data that are given. The following are the steps that I took to analyse the data and for finding answers to the questions:

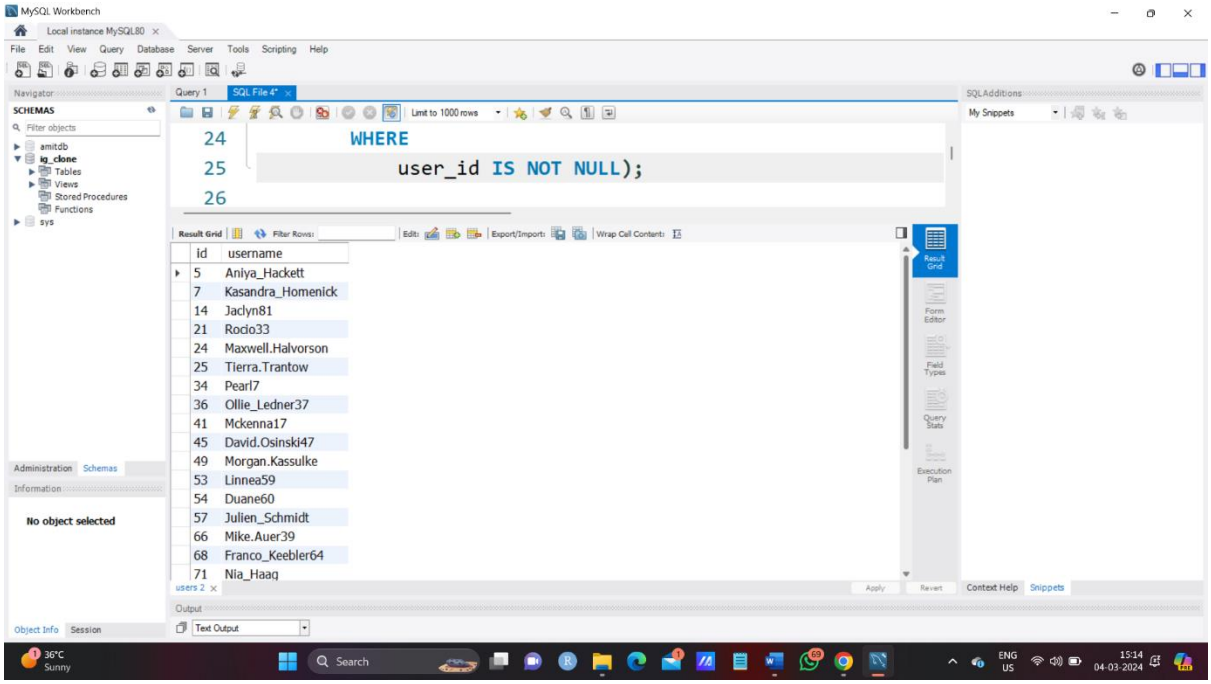
A) Marketing analysis

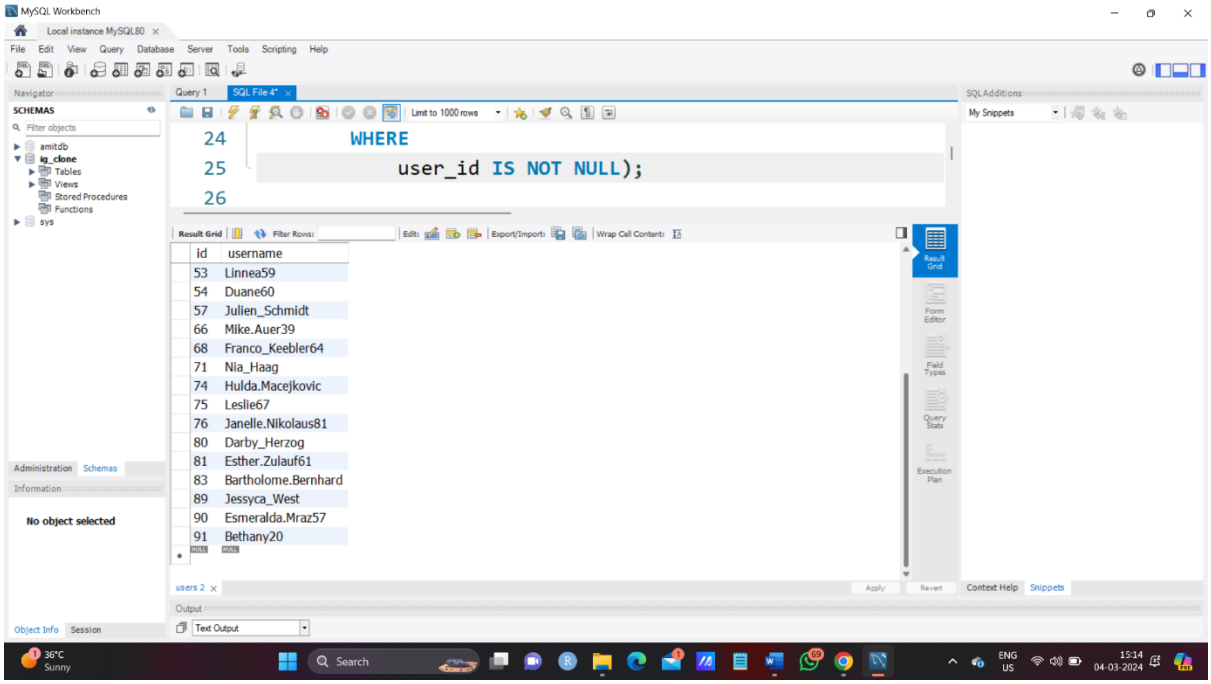
1. **Loyal user reward**: Here we identify the five oldest users of Instagram to give the loyal user reward. The below image tells the queries I took to analyse the user data from the database along with the result.



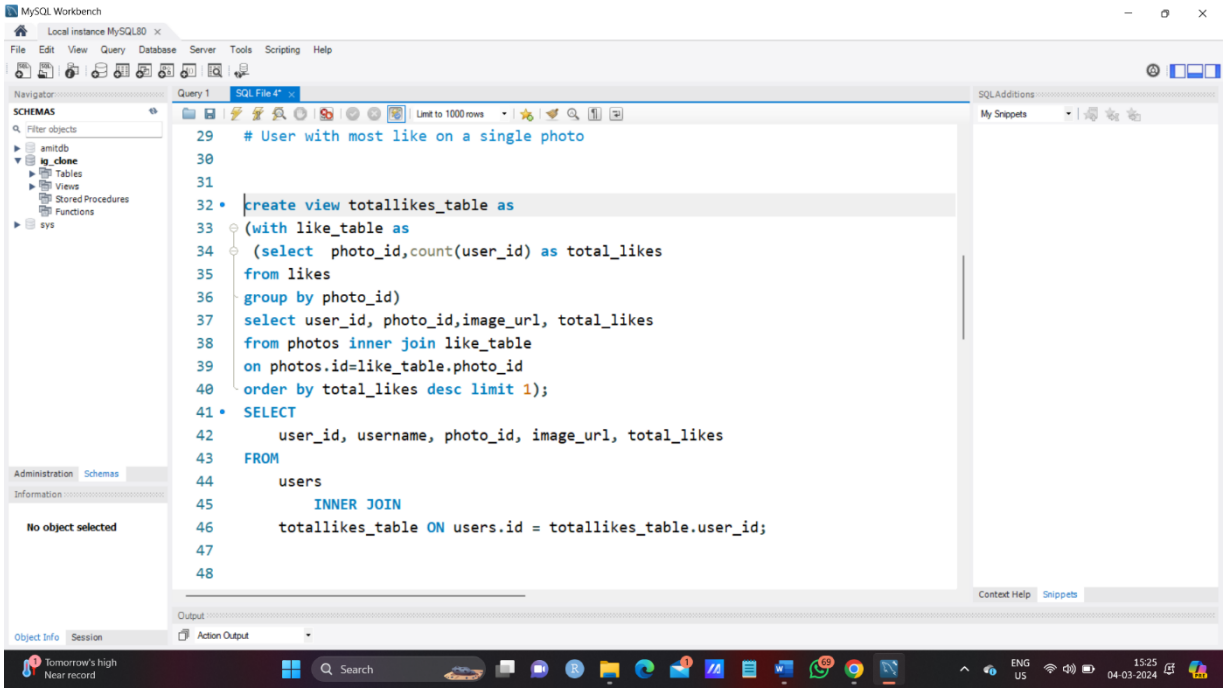
2. **Inactive user engagement**: Here we identify the users who never posted a photo on Instagram. Here we used the photos and users dataset from database ig_clone. The query and result are given below.

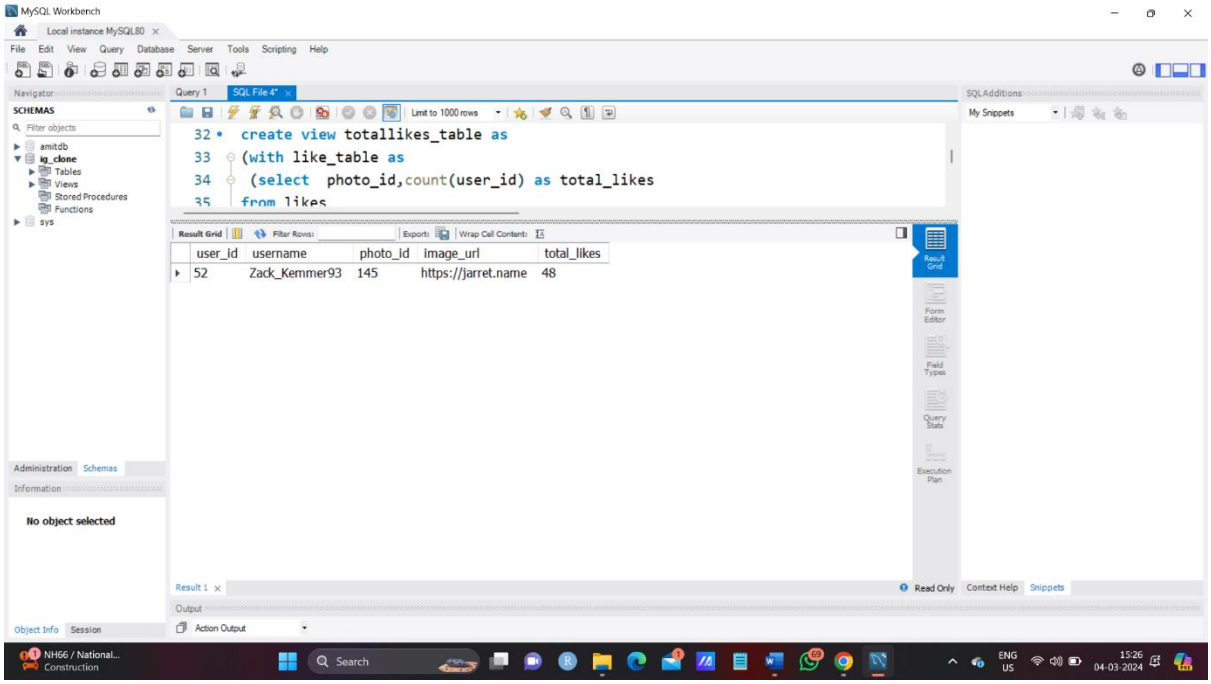




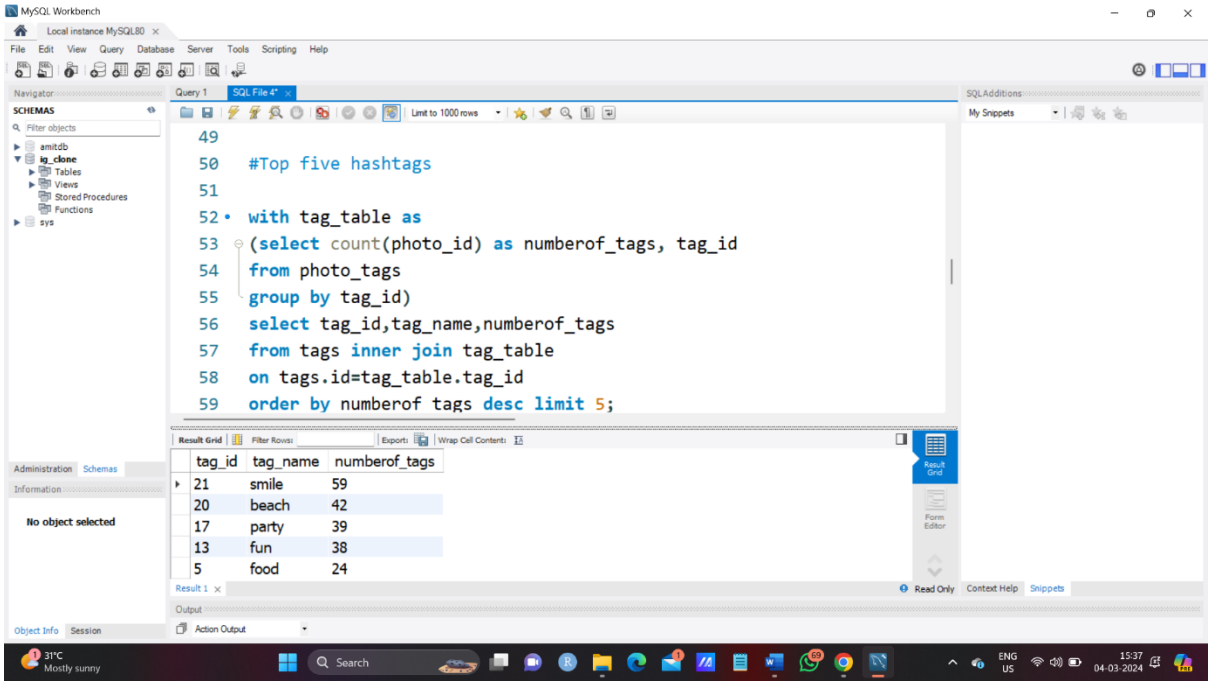


3. **Contest Winner declaration:** Here we find the user with the most likes on a single photo. The queries and result are given below.

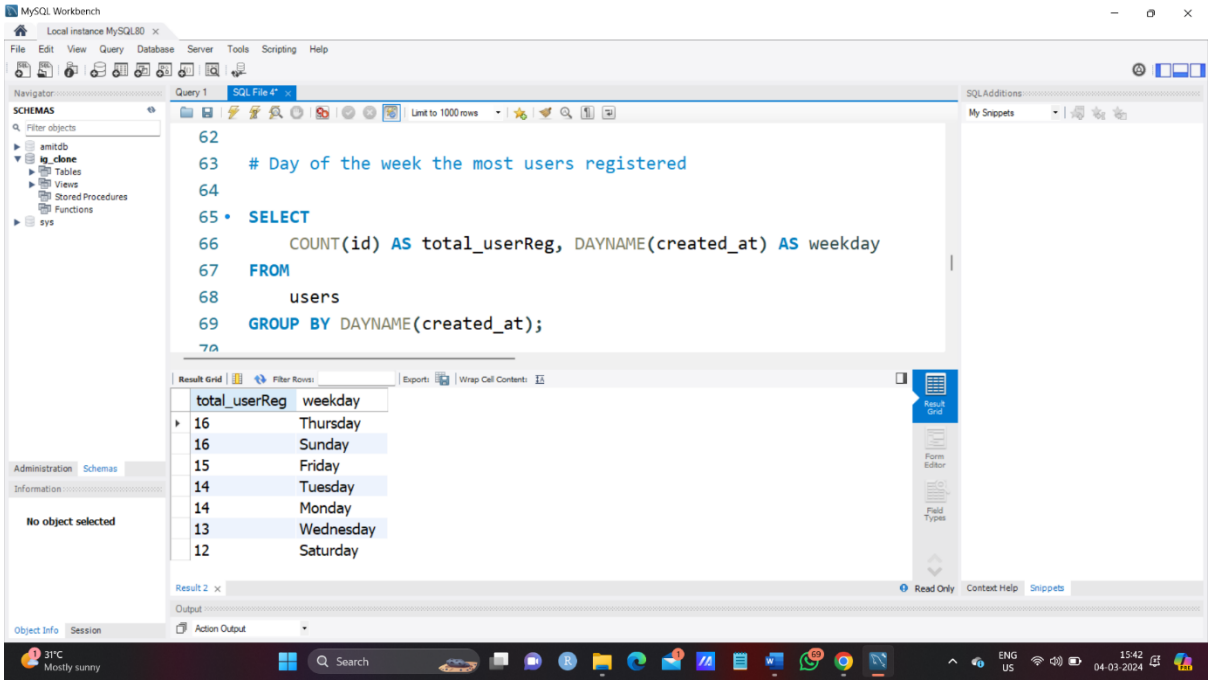




4. **Hashtag Research:** We identified the five most commonly used hashtags on Instagram. The SQL queries and results are as follows.

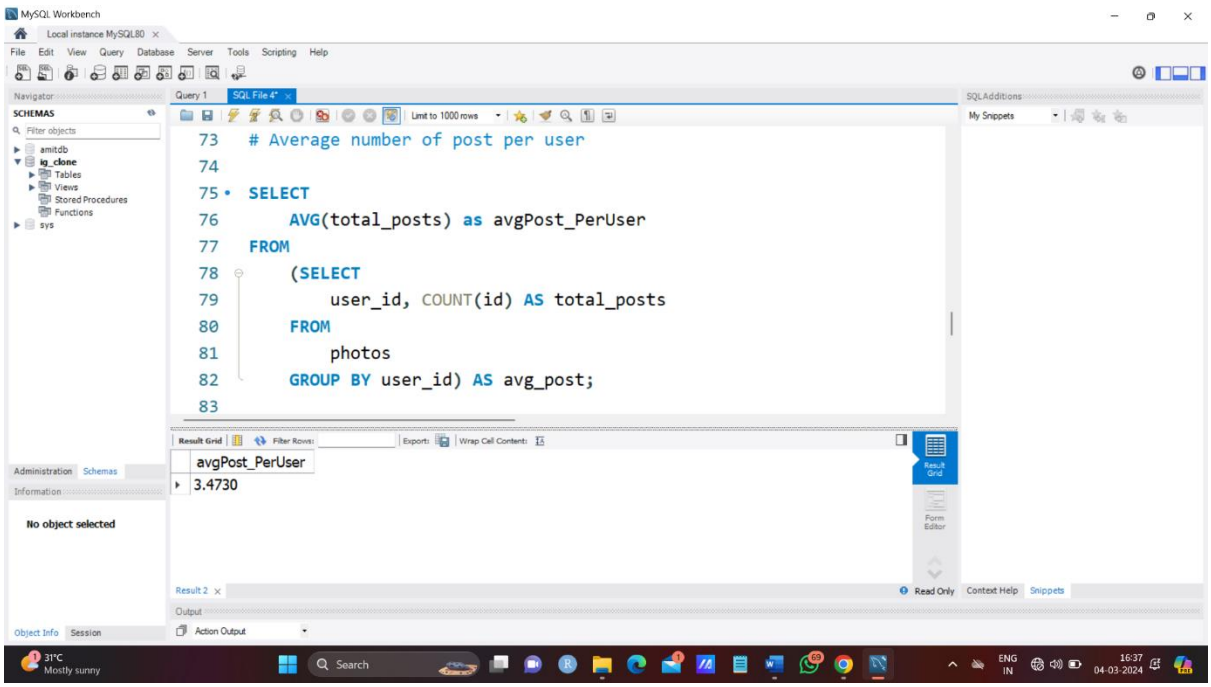


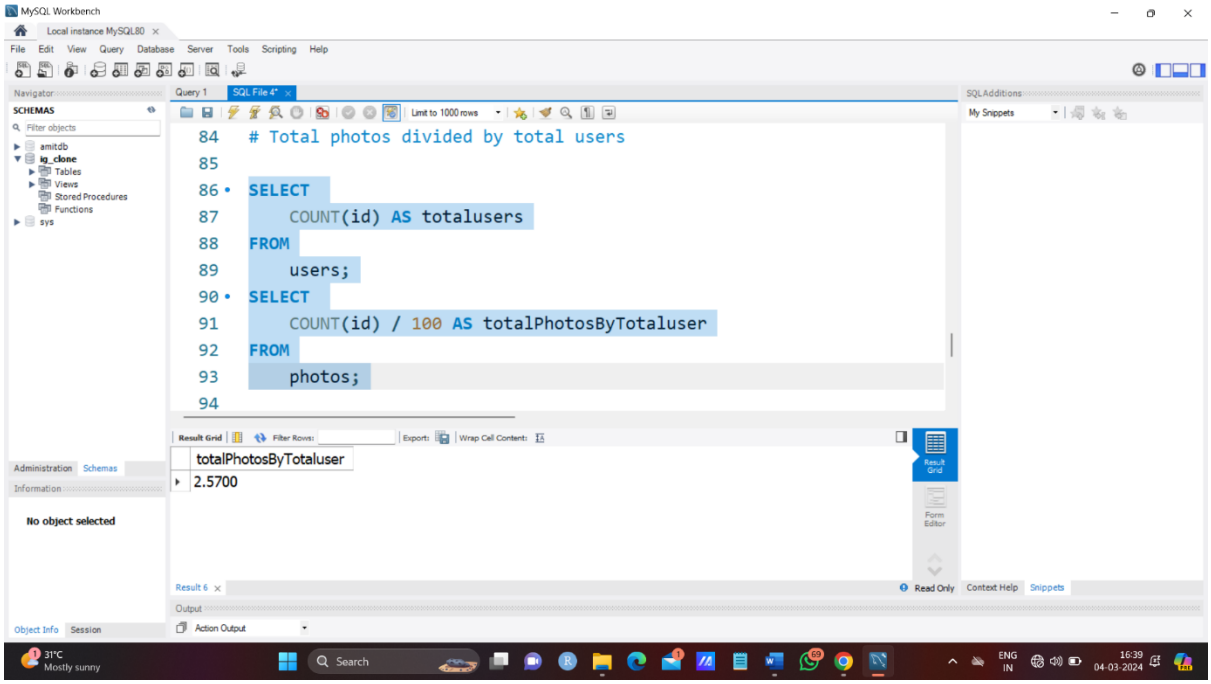
5. **Ad campaign launch:** Here we found out the day of the week when the most users registered. The queries and result are as follows.



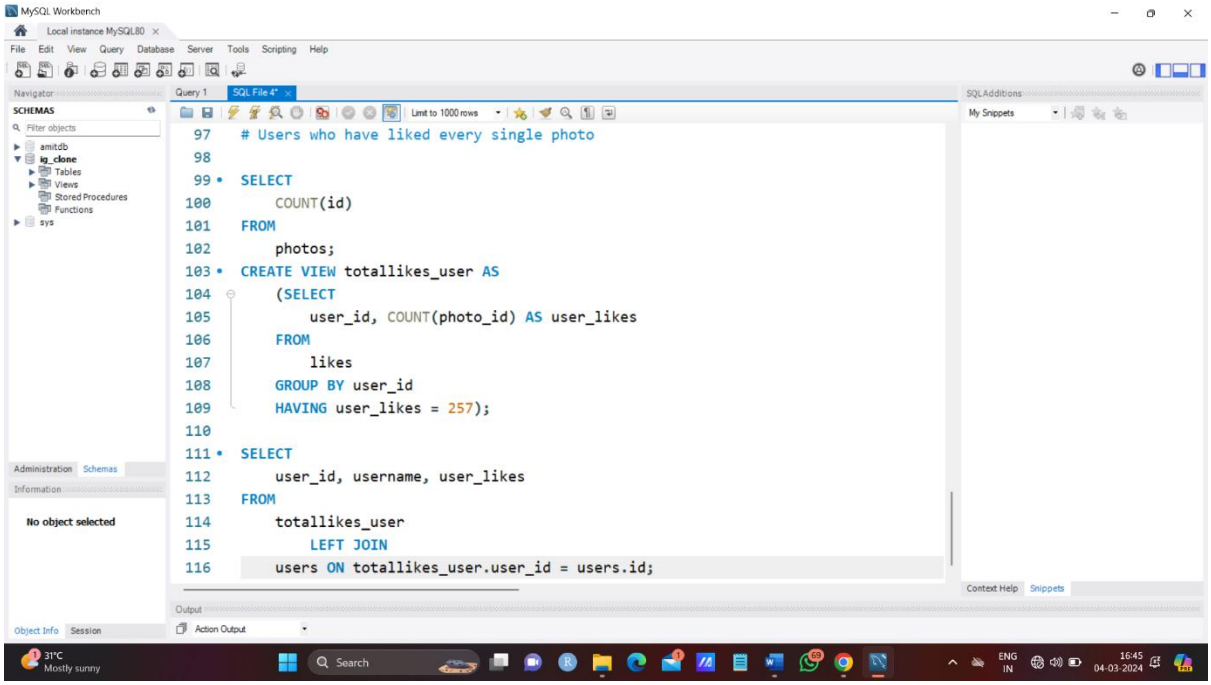
B) Investor metrics

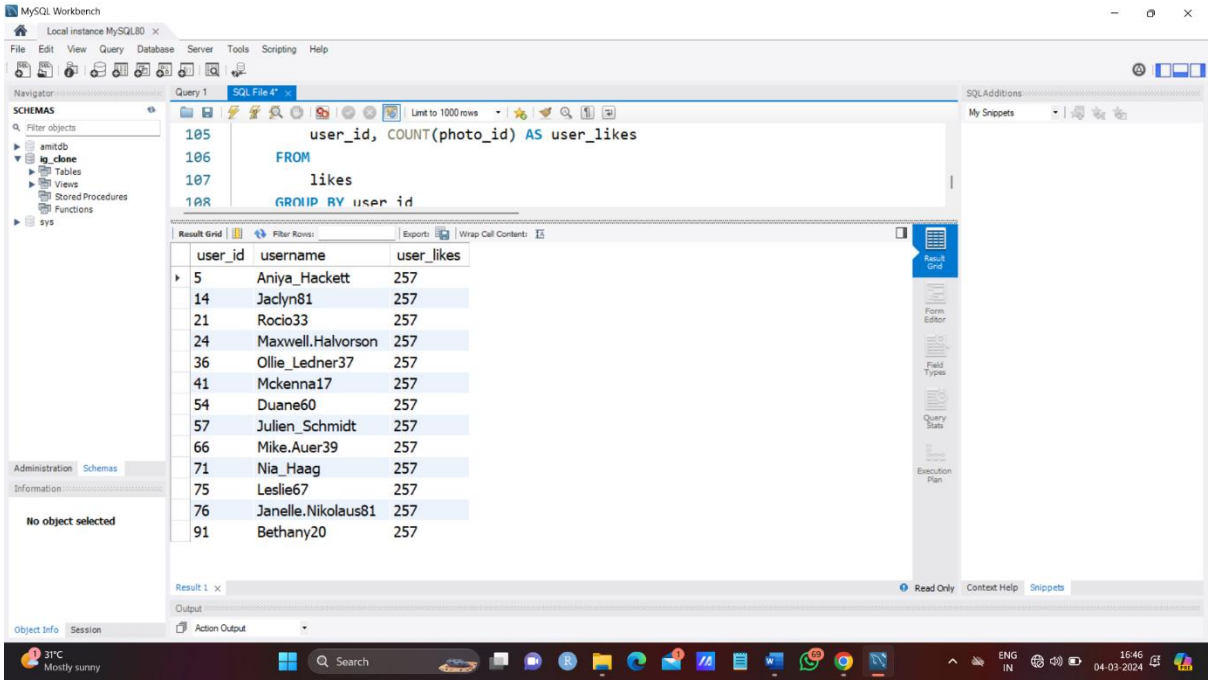
1. **User engagement:** Here I calculated the average number of posts per user on Instagram. I also calculated the total number of posts on Instagram divided by total number of users.





2. **Bots and fake accounts:** Here we identified the users who have liked every single picture in Instagram. The queries and results are below.





TECH-STACK USED:

For this analysis I use the software, MySQL Workbench. And in this software, I imported the data set given and use SQL queries to find different insights for different department needs. The reason why we use the SQL is that since the database is relational and we want to join different data to get the information we want the SQL is the best choice. Also, for the dataset that is very large SQL is useful.

INSIGHTS:

During the phase of Marketing analysis,

1. We found out that almost **26 people who made an account in Instagram doesn't post any photos**, which shows that they are inactive users.
2. We found that the photo posted by the user named **Zack_Kemmer93 got the maximum number of likes from the contest conducted**.
3. The top **hashtags that used in the Instagram are smile, beach, party, fun and food.**
4. The days in the week the **most users registered in Instagram was Thursday and Sunday.**

During the phase of Investor metrics,

1. The average number of photos per user is **3.4730.** And the total number of photos on Instagram divided by total number of users is **2.5700**.
2. The **users who liked every single photo in Instagram is almost 13**.

RESULT:

- Since we find the five oldest users of Instagram, we can give the loyal user award to these people which will help to enhance the user engagement.
- We found that 26 Instagram users doesn't post any photos which makes us aware that they active on Instagram. This information helped the marketing team so that they can send the users promotional mails to make them active users.
- The marketing team of the Instagram made a contest that with which the post having highest like will be awarded. Since we found the user with the post that have highest number of likes the Instagram will declare the winner which will also help the other users to be more active in this social media.
- The information of most popular hashtags that we have found from the data is given to a partner band so that they can use them in their posts to make them reach a large amount of the users.
- With the help of data, we found that most of the users of Instagram have registered their account during Thursday and Sunday. This insight will help the marketing team to launch the ads on the perfect day of the week when the most users engaged.
- Since we found out the average number of photos per user on Instagram, we can tell that even if every user is not posting photos, the users who post the photos are still active. The finding tells that around three photos are posted in Instagram by a user.
- We found that 13 users in Instagram liked each and every photo that is posted. This is not possible by a normal user, so we can make a conclusion that these accounts are fake or dummy accounts(bots).