Instagram User Analytics

Project Description:

As a data analyst, I collaborate with Instagram's product team to analyse interactions and engagement of the user towards the app to offer insightful analysis which can help to build better products and enhance the experience of the user. In user analysis, insights are drawn about how users interact with a digital product like software or mobile application and these insights are used by a different team to make the product better.

Its purpose is to get insights into the user's interaction and engagement with Instagram which helps the marketing team decide when to launch a new ad campaign, helps the product team decide which features need to be built and modified and also helps the development team to improve the user interaction experience with the app.

Approach:

Firstly, download the MySQL Installer from the MySQL site and install it on the computer.

In MySQL Workbench, Create the database with the name ig_clone. In this database, create different tables such as Users, Photos, Comments, Likes, Follows, Tags, and Photo Tags. Then, add data to each of the tables using SQL Queries.

Use SQL queries to extract the information that is required from the Marketing and Investor team from that database.

Tech-Stack Used:

MySQL Workbench 8.0 – Version 8.0.36 build 3737333 CE (64 bits) is used in this project as it is free and open-source. It is an easy-to-use relational database management system.

Insights:

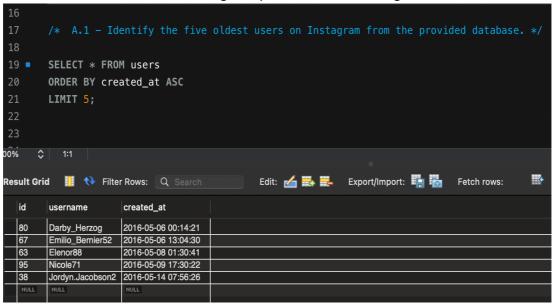
Summary from the extracting the information using SQL queries from the database ig_clone are:

- 1. Users with IDs (80, 67, 63, 95, 38) are among those who have been using Instagram for a long time.
- 2. Out of 100 members, 26 have not uploaded a single picture since their account was created.
- 3. The user who has ID-52 has received the most likes on just one photo.
- 4. Of the 21 hashtags, it is noted that six (smile, beach, party, fun, and concert) most often used hashtags.
- 5. The majority of users sign up on Thursdays and Sundays of the week.
- 6. The average number of posts per user is approx. 3.
- 7. Out of 100, 13 users were thought to be potential bots because they liked every post.

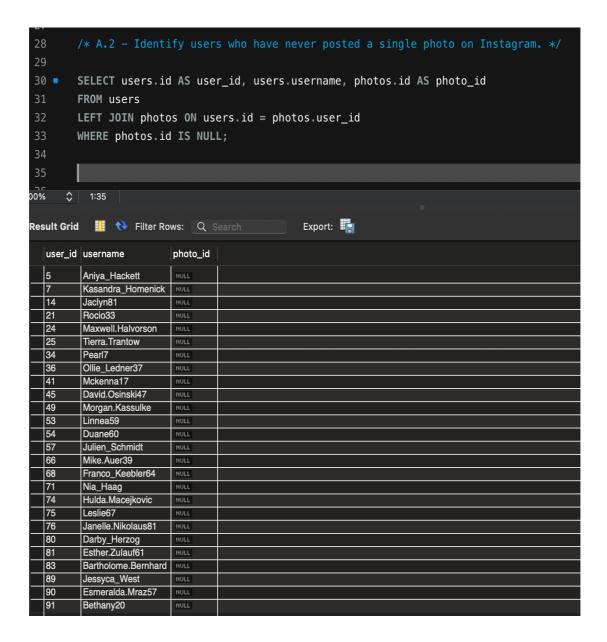
Some of the highlights for insights based on the ig clone database are:

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.



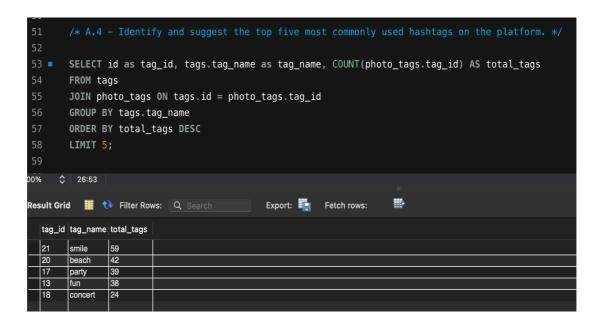
2. Inactive User Engagement: The team wants to encourage inactive users to start posting by sending them promotional emails.



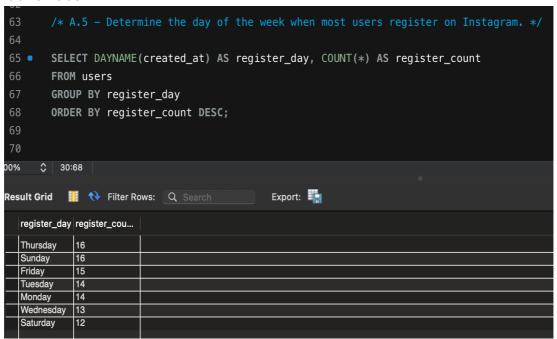
3. Contest Winner Declaration: The team has organized a contest where the user with the most likes on a single photo wins.

```
SELECT users.id AS user_id, users.username, photos.id AS photo_id, photos.image_url,
      COUNT(likes.photo_id) AS total_likes
      FROM users
      JOIN photos ON users.id = photos.user_id
      JOIN likes ON photos.id = likes.photo_id
      GROUP BY users.id, users.username, photos.id, photos.image_url
      ORDER BY total_likes desc
      LIMIT 1;
     11:43
Result Grid 🏢 숷 Filter Rows: 🔍 Search
                                            Export: Fetch rows:
                    photo_id image_url
                                        total_likes
 user_id username
       Zack Kemmer93 145
                           https://jarret.name 48
```

4. Hashtag Research: A partner brand wants to know the most popular hashtags to use in their posts to reach the most people.

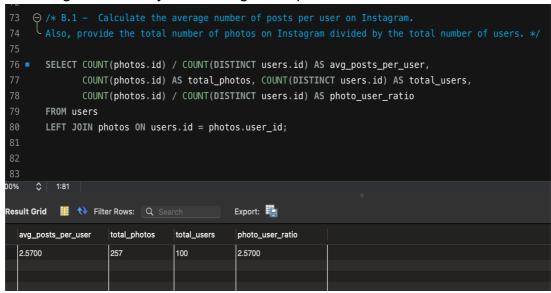


5. Ad Campaign Launch: The team wants to know the best day of the week to launch ads.

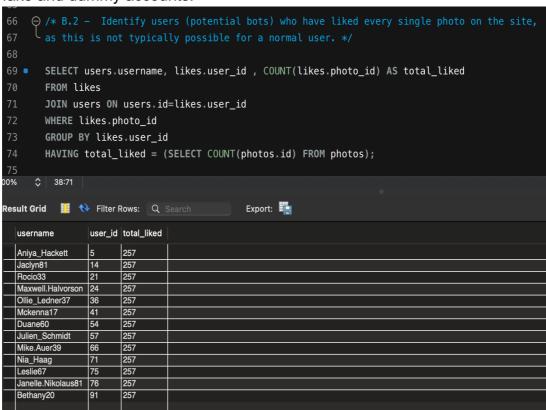


B) Investor Metrics:

1. **User Engagement:** Investors want to know if users are still active and posting on Instagram or if they are making fewer posts.



2. Bots & Fake Accounts: Investors want to know if the platform is crowded with fake and dummy accounts.



Results:

While doing this project, I have learned about the fundamentals of SQL such as creating the database, creating the table, and inserting the table along with some SQL queries to extract insights from the relational database which helps to identify patterns and trends in user behaviours.

From this project, the Marketing team got to know about the user's behaviours towards the platform:

- Users who have been loyal and using this platform for a long time can receive the Loyal Users Rewards.
- They also got insights into inactive users so that they could send promotional emails to retain the users.
- The marketing team has organised a contest where the user with the most likes in a single photo will win to encourage the user to post to stay active.
- The partner brand got the details about the most popular hashtags so that they can reach most people.
- The marketing team got to know that Thursdays and Sundays are the days when they can schedule an ad campaign.

Investors got to know about users still using the platform and actively posting on Instagram. They also got to know that there are so many fake and dummy accounts.

Overall, this project helped us to derive some valuable insights to make the product better and enhance user interactions and engagement with the product.