

Project Description:

The project involves analysing a database related to Instagram users. The database contains information about users, their followers, posts, photo tags, likes, and comments. The aim is to extract meaningful insights from the data and answer some questions related to the users and their activities on Instagram.

Approach:

The approach towards the project involves first understanding the structure of the database and the relationships between the tables. Then, SQL queries are used to extract the necessary information and perform the required analysis. The results are then presented in a report format.

Tech-Stack Used:

The project was carried out using MySQL Workbench version 8.0 as the software for database management and SQL query execution. The purpose of using MySQL Workbench was to create, maintain and visualize the database, execute queries

Insights:

Through the analysis, some of the insights that were gained include the following:

- During the analysing the database I found that one user got 48 likes on one particular post
- During the analysing data I feel that I am working as data analyst
- Hashtag used , during the analysing most commonly used hashtag we executed
- Its a real world project this project will help me for my future as a Data Analyst

Result:

The project achieved the objective of extracting meaningful insights from the provided database using SQL. The insights gained can be used to make data-driven decisions regarding Instagram marketing and user engagement strategies. The

project helped in understanding the importance of data analysis in decision-making processes and improved proficiency in SQL.

1 Rewarding Most Loyal Users: People who have been using the platform for the longest time.

Your Task: Find the 5 oldest users of the Instagram from the database provided

Ans. `select * from ig_clone.users order by created_at limit 5;`

2 Remind Inactive Users to Start Posting: By sending them promotional emails to post their 1st photo.

Your Task: Find the users who have never posted a single photo on Instagram

Ans. `= select username, users.id from users left join photos on users.id = photos.user_id where photos.user_id is null`

3 Declaring Contest Winner: The team started a contest and the user who gets the most likes on a single photo will win the contest now they wish to declare the winner.

Your Task: Identify the winner of the contest and provide their details to the team

Ans.`select users.username, photo_id, photos.user_id, count(photo_id) from likes
inner join photos on likes.photo_id = photos.id inner join
users on photos.user_id = users.id
group by photo_id order by count(photo_id) desc limit 1`

4 Hashtag Researching: A partner brand wants to know, which hashtags to use in the post to reach the most people on the platform.

Your Task: Identify and suggest the top 5 most commonly used hashtags on the platform

Ans. `select tags.tag_name, count(tag_name) as total_count from tags inner join photo_tags on tags.id = photo_tags.tag_id group by photo_tags.tag_id order by total_count desc limit 5`

5 Launch AD Campaign: The team wants to know, which day would be the best day to launch ADs.

Your Task: What day of the week do most users register on? Provide insights on when to schedule an ad campaign

Ans. `WITH most_user AS (select username, created_at,
case
when weekday(created_at) = '0' then 'monday'
when weekday(created_at) = '1' then 'Tuesday'`

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when weekday(created_at) = '2' then 'wednesday'
when weekday(created_at) = '3' then 'Thursday'
when weekday(created_at) = '4' then 'Friday'
when weekday(created_at) = '5' then 'Saturday'
when weekday(created_at) = '6' then 'Sunday'
end as day_of_week
from users )
SELECT day_of_week, COUNT(day_of_week) from most_user group by day_of_week
order by COUNT(day_of_week) desc limit 2

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B(1) User Engagement: Are users still as active and post on Instagram or they are making fewer posts

Your Task: Provide how many times does average user posts on Instagram. Also, provide the total number of photos on Instagram/total number of users

Ans.. Total number of photos = select count(image_url) as Total_photos from photos

Total number of user = select count(*) as totalno_ofusers from users

Average post per user = SELECT (SELECT COUNT(*) FROM photos) / (select Count(*) from users) as avg

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

Your Task: Provide data on users (bots) who have liked every single photo on the site (since any normal user would not be able to do this).

Ans. select users.username, user_id as users_wholikeeveryphoto, count(photo_id) from likes left join users on users.id = likes.user_id group by user_id having count(photo_id) = '257'