**Learners have to come up with a Report to support the answers to the following questions and suggestions**

Objective Questions

1. Are there any tables with duplicate or missing null values? If so, how would you handle them?

Ans :there are no duplicate value or null data

1. What is the distribution of user activity levels (e.g., number of posts, likes, comments) across the user base?

with cte1 as (Select t2.id, count(\*) as comments

from comments as t1

join users as t2 on

t2.id=t1.user\_id

group by t2.id),

cte2 as (

Select t2.id, count(\*) as likes

from likes as t1

join users as t2 on

t2.id=t1.user\_id

group by t2.id

),

cte3 as (select t2.id, count(\*) as photos

from photos t1

join users as t2 on

t2.id=t1.user\_id group by t2.id)

select c.id, c.comments,c1.likes ,c2.photos

from cte c

join cte2 c1

on c.id=c1.id

join cte3 c2 on

c2.id=c1.id

first take comments ,user join using user\_id column in cte 1 ,likes and user in join user\_id in cte 2 and photos and users in cte 3 after that join cte1,cte2,cte 3 using user\_id,and get final result number of count comments ,likes and photos like

1. Calculate the average number of tags per post (photo\_tags and photos tables).

select p.id as PostId,avg(pt.tag\_id) as AvgPerPost

from photos p

join photo\_tags pt on p.id=pt.photo\_id

group by p.id

order by p.id

To calculate average tag\_id with using two table photos and photo\_tag after that using group by p.id for aggregation function and for order by result use order by p.id

1. Identify the top users with the highest engagement rates (likes, comments) on their posts and rank them.

Calculate total likes and comments for each photo

WITH for\_photo\_engagement AS (

SELECT

p.id AS photo\_id,

p.user\_id,

COUNT(DISTINCT l.user\_id) AS like\_count,

COUNT(DISTINCT c.id) AS comment\_count

FROM

photos p

LEFT JOIN likes l ON p.id = l.photo\_id

LEFT JOIN comments c ON p.id = c.photo\_id

GROUP BY

p.id

),

: Aggregate total engagement per user

for\_user\_engagement AS (

SELECT

pe.user\_id,

SUM(pe.like\_count) AS total\_likes,

SUM(pe.comment\_count) AS total\_comments,

SUM(pe.like\_count + pe.comment\_count) AS total\_engagement

FROM

photo\_engagement pe

GROUP BY

pe.user\_id

)

::; Rank users based on their engagement

SELECT

ue.user\_id,

u.username,

ue.total\_likes,

ue.total\_comments,

ue.total\_engagement,

RANK() OVER (ORDER BY ue.total\_engagement DESC) AS rnk

FROM

user\_engagement ue

JOIN users u ON ue.user\_id = u.id

ORDER BY

ue.total\_engagement DESC;

first created CTE for photos to check how many likes and comments are there on that photo.I used photos,comments and likes table and joined them on photo\_id to get count of comments and likes per photo. For 2nd CTE,I used first CTE to get total likes and comments for that user.And did sum of likes and comments to get total engagement for that particular user. At last in select query rank all the user on their enganement level from higher to lower and display them from highest to lowest.

1. Which users have the highest number of followers and followings?

use social\_media\_project ;

WITH followers\_count AS (

SELECT follower\_id,COUNT(follower\_id) AS num\_followers

FROM follows

group by follower\_id

),

followings\_count AS (

SELECT followee\_id,COUNT(followee\_id) AS num\_followings

FROM follows

group by followee\_id

)

SELECT u.username,

MAX(f.num\_followers) AS max\_followers,

MAX(f1.num\_followings) AS max\_followings

FROM users u

left JOIN followers\_count f ON u.id = f.follower\_id

left JOIN followings\_count f1 ON

u.id = f1.followee\_id

GROUP BY u.username

ORDER BY max\_followers DESC, max\_followings DESC

In the above query we are taking two cte first is followers\_count and followings\_count ,In is followers\_count are counting follower\_id as number of follower after that group by follower\_id ,

In followings\_count cte ,we are counting followee \_id AS num\_followings and group by folloee\_id ,after that using both cte finding max of max\_followers,and max\_followings with join both cte .

1. the average engagement rate (likes, comments) per post for each user.

WITH photo\_engagement AS (

SELECT

p.id AS photo\_id,

p.user\_id,

COUNT(DISTINCT l.user\_id) AS like\_count,

COUNT(DISTINCT c.id) AS comment\_count,

COUNT(DISTINCT l.user\_id) + COUNT(DISTINCT c.id) AS total\_engagement

FROM

photos p

LEFT JOIN likes l ON p.id = l.photo\_id

LEFT JOIN comments c ON p.id = c.photo\_id

GROUP BY

p.id

),

user\_engagement AS (

SELECT

pe.user\_id,

SUM(pe.total\_engagement) AS total\_engagement,

COUNT(pe.photo\_id) AS post\_count

FROM

photo\_engagement pe

GROUP BY

pe.user\_id

)

SELECT

ue.user\_id,

u.username,

ue.total\_engagement,

ue.post\_count,

round((ue.total\_engagement / ue.post\_count),2)

as average\_engagement\_per\_post

FROM

user\_engagement ue

JOIN users u ON ue.user\_id = u.id

ORDER BY

average\_engagement\_per\_post DESC;

In the above query we are taking two cte first is photo\_engagement and user\_engagement,In is followers\_count are counting follower\_id as number of follower after that group by follower\_id ,

In photo\_engagement cte ,we are counting followee \_id AS num\_followings and group by folloee\_id ,after that using both cte finding max of max\_followers,and max\_followings with join both cte .

1. Get the list of users who have never liked any post (users and likes tables)

select id,username

from users where id not in (select user\_id from likes)

In this query finding who have never like any post ,in this case we are not putting where condition with not in user\_id likes

1. How can you leverage user-generated content (posts, hashtags, photo tags) to create more personalized and engaging ad campaigns?

To leverage user-generated content for personalized and engaging ad campaigns, you can use the data from the tables mentioned above in the following ways:

1. Analyze the comments and likes on photos to understand user preferences and interests. This data can help you identify popular trends and topics among your users.

2. Use the follow relationships between users to target ads to users who are likely to be interested in similar content. For example, if a user follows another user who frequently posts about fashion, you can target ads related to fashion to both users.

3. Utilize the tags associated with photos to categorize content and target ads based on specific interests. For example, if a user frequently interacts with photos tagged with #travel, you can show ads related to travel destinations or products.

4. Collaborate with influencers or users with a large following to create user-generated content that can be used in ad campaigns. This type of content is often more authentic and engaging for users.

Overall, by leveraging user-generated content and user data from your database, you can create personalized and engaging ad campaigns that resonate with your target audience.

1. Are there any correlations between user activity levels and specific content types (e.g., photos, videos, reels)? How can this information guide content creation and curation strategies?

Yes, there are often correlations between user activity levels and specific content types. For example, some users may prefer photos over videos, while others may engage more with reels or short-form video content. By analyzing user activity data, content creators and curators can identify which types of content are resonating most with their audience and tailor their content creation and curation strategies accordingly.

This information can guide content creation and curation strategies by helping creators focus on producing more of the types of content that generate higher levels of engagement. For example, if users are consistently engaging with photos more than videos, creators may want to prioritize creating more visual content. Alternatively, if reels are driving the most engagement, creators may want to dedicate more resources to producing short-form video content.

By understanding which content types are most popular with their audience, content creators can optimize their content strategy to maximize engagement, reach, and overall success on their platform. Additionally, by regularly monitoring user activity data and adjusting content strategies accordingly, creators can stay relevant and continue to attract and retain a loyal following.

1. Calculate the total number of likes, comments, and photo tags for each user.

with comments as (select user\_id,count(\*) as total\_comments

from users as t1

join comments as t2 on

t1.id=t2.user\_id

group by user\_id

order by user\_id desc),

likes as (select user\_id,count(\*) as total\_likes

from users as t1

join likes as t2 on

t1.id=t2.user\_id

group by user\_id

order by user\_id desc),

photo\_tag as(select user\_id,count(\*) as total\_photo\_tags

from users as t1

join photos as t2 on

t1.id=t2.user\_id

join photo\_tags as t3 on

t2.id=t3.photo\_id

group by user\_id

order by user\_id desc)

select c.user\_id,c.total\_comments ,l.total\_likes ,p.total\_photo\_tags

from comments as c

join likes as l on

c.user\_id=l.user\_id

join photo\_tag p on

c.user\_id=p.user\_id

firstly taking 3 cte first is comments ,second is likes and third is photo\_tag ,In first cte comments count total comment as per user\_id ,second cte count total kikes as per users and third cte count photo\_tag per user ,

after that join there are 3 cte and display final result like total comment ,total likes ,total\_tags using user\_id

1. Rank users based on their total engagement (likes, comments, shares) over a month.

WITH LikesCount AS (

SELECT

p.user\_id,

COUNT(l.photo\_id) AS total\_likes

FROM

photos p

LEFT JOIN

likes l ON p.id = l.photo\_id

WHERE

l.created\_at >= NOW() - INTERVAL 1 MONTH

GROUP BY

p.user\_id

),

CommentsCount AS (

SELECT

p.user\_id,

COUNT(c.photo\_id) AS total\_comments

FROM

photos p

LEFT JOIN

comments c ON p.id = c.photo\_id

WHERE

c.created\_at >= NOW() - INTERVAL 1 MONTH

GROUP BY

p.user\_id

),

Engagement AS (

SELECT

u.id AS user\_id,

u.username,

COALESCE(l.total\_likes, 0) + COALESCE(c.total\_comments, 0) AS total\_engagement

FROM

users u

LEFT JOIN

LikesCount l ON u.id = l.user\_id

LEFT JOIN

CommentsCount c ON u.id = c.user\_id

)

SELECT

user\_id,

username,

total\_engagement,

RANK() OVER (ORDER BY total\_engagement DESC) AS engagement\_rank

FROM

Engagement

ORDER BY

engagement\_rank;

Created 2 different CTE to count no. of likes and comments in last month. 3rd CTE for to count total engagement of user. In select query,used rank function to display their rank from highest to lowest on their engagement level.

1. highest average number of likes. Use a CTE to calculate the average likes for each hashtag first.

with avg\_likes\_per\_tag as

-- (

-- select

-- pt.tag\_id,

-- round(avg(l.user\_id),2) as avg\_likes

-- from photo\_tags pt

-- join photos p on pt.photo\_id = p.id

-- join likes l on p.id = l.photo\_id

-- group by pt.tag\_id

-- )

-- select

-- t.tag\_name,

-- alt.avg\_likes

-- from avg\_likes\_per\_tag alt

-- join tags t on alt.tag\_id = t.id

-- order by alt.avg\_likes desc;

1. Retrieve the users who have started following someone after being followed by that person

select

distinct u1.username

from users u1

join follows f1 on u1.id = f1.follower\_id

join follows f2 on u1.id = f2.followee\_id

where f1.created\_at < f2.created\_at

In out data,dates in comments,photos and likes table are same and of last month.

As it is already mentioned in question,created CTE to calculate average likes of posts. And in select query displayed that tag with their average like in descending to order to see highest to lowest.

Subjective Questions

1. Based on user engagement and activity levels, which users would you consider the most loyal or valuable? How would you reward or incentivize these users?

WITH LikesGiven AS (

SELECT user\_id, COUNT(\*) AS likes\_given

FROM likes

WHERE created\_at >= NOW() - INTERVAL 1 MONTH

GROUP BY user\_id

),

LikesReceived AS (

SELECT p.user\_id, COUNT(\*) AS likes\_received

FROM likes l

JOIN photos p ON l.photo\_id = p.id

WHERE l.created\_at >= NOW() - INTERVAL 1 MONTH

GROUP BY p.user\_id

),

CommentsGiven AS (

SELECT user\_id, COUNT(\*) AS comments\_given

FROM comments

WHERE created\_at >= NOW() - INTERVAL 1 MONTH

GROUP BY user\_id

),

CommentsReceived AS (

SELECT p.user\_id, COUNT(\*) AS comments\_received

FROM comments c

JOIN photos p ON c.photo\_id = p.id

WHERE c.created\_at >= NOW() - INTERVAL 1 MONTH

GROUP BY p.user\_id

),

PhotosUploaded AS (

SELECT user\_id, COUNT(\*) AS photos\_uploaded

FROM photos

WHERE created\_dat >= NOW() - INTERVAL 1 MONTH

GROUP BY user\_id

),

Followers AS (

SELECT followee\_id AS user\_id, COUNT(\*) AS followers

FROM follows

GROUP BY followee\_id

),

Following AS (

SELECT follower\_id AS user\_id, COUNT(\*) AS following

FROM follows

GROUP BY follower\_id

),

Engagement AS (

SELECT

u.id AS user\_id,

u.username,

COALESCE(lg.likes\_given, 0) + COALESCE(lr.likes\_received, 0) +

COALESCE(cg.comments\_given, 0) + COALESCE(cr.comments\_received, 0) +

COALESCE(pu.photos\_uploaded, 0) + COALESCE(f.followers, 0) +

COALESCE(fg.following, 0) AS total\_engagement

FROM

users u

LEFT JOIN LikesGiven lg ON u.id = lg.user\_id

LEFT JOIN LikesReceived lr ON u.id = lr.user\_id

LEFT JOIN CommentsGiven cg ON u.id = cg.user\_id

LEFT JOIN CommentsReceived cr ON u.id = cr.user\_id

LEFT JOIN PhotosUploaded pu ON u.id = pu.user\_id

LEFT JOIN Followers f ON u.id = f.user\_id

LEFT JOIN Following fg ON u.id = fg.user\_id

)

SELECT

user\_id,

username,

total\_engagement,

RANK() OVER (ORDER BY total\_engagement DESC) AS engagement\_rank

FROM

Engagement

ORDER BY

engagement\_rank;

The most loyal and valuable users are those who consistently engage with the platform, contribute high-quality content, participate in discussions, and positively impact the community. These users are likely to be active members who regularly provide feedback, support other users, and demonstrate a strong commitment to the platform.

To reward and incentivize these loyal users, you could consider implementing a loyalty program that offers various benefits and perks such as exclusive access to premium features, discounts on products or services, early access to new features, recognition in the community, badges or titles to display on their profile, or even physical rewards like merchandise or gift cards. Additionally, you could create special events or challenges for these users to participate in, creating a sense of exclusivity and importance within the community.

Overall, the key is to show appreciation for their continued support and engagement, and to provide incentives that are meaningful and relevant to their interests and motivations. By recognizing and rewarding these loyal users, you can encourage them to remain active, engaged, and committed to the platform in the long run.

1. For inactive users, what strategies would you recommend to re-engage them and encourage them to start posting or engaging again?

According to our data base all user active now so in our data no find any inactive user

We check data with below query ::::::

WITH LastActivity AS (

SELECT

u.id AS user\_id,

MAX(GREATEST(

(l.created\_at),

(c.created\_at),

(p.created\_dat)

)) AS last\_activity

FROM

users u

LEFT JOIN

likes l ON u.id = l.user\_id

LEFT JOIN

comments c ON u.id = c.user\_id

LEFT JOIN

photos p ON u.id = p.user\_id

GROUP BY

u.id

)

SELECT

u.id,

u.username,

la.last\_activity

FROM

users u

JOIN

LastActivity la ON u.id = la.user\_id

WHERE

la.last\_activity < NOW() - INTERVAL 3 MONTH;

for Recommendation ::::::::

1. Personalized outreach: Send personalized messages to inactive users thanking them for being part of the community in the past and encourage them to start posting again. Ask for feedback on why they are no longer active and what could be done to improve their experience.

2. Exclusive offers or incentives: Offer special promotions or incentives for inactive users to encourage them to start posting or engaging again. This could include discounts, freebies, or exclusive access to premium features.

3. Create a sense of urgency: Use limited-time offers or time-sensitive promotions to create a sense of urgency and encourage inactive users to start engaging again.

4. Highlight new content or features: Showcase any new content or features that have been added to the platform since the user was last active. This can pique their interest and encourage them to start posting again.

5. Organize contests or challenges: Organize contests or challenges that require active participation from users. This can help re-engage inactive users and encourage them to start posting or engaging again.

6. Provide relevant and engaging content: Make sure that the content on the platform is relevant, engaging, and interesting to the target audience. This can help re-engage inactive users and encourage them to start posting again.

1. Which hashtags or content topics have the highest engagement rates? How can this information guide content strategy and ad campaigns?

WITH PhotoEngagement AS (

SELECT

p.id AS photo\_id,

COALESCE(COUNT(DISTINCT l.user\_id), 0) + COALESCE(COUNT(DISTINCT c.id), 0) AS total\_engagement

FROM

photos p

LEFT JOIN

likes l ON p.id = l.photo\_id

LEFT JOIN

comments c ON p.id = c.photo\_id

GROUP BY

p.id

),

HashtagEngagement AS (

SELECT

t.id AS tag\_id,

t.tag\_name,

COALESCE(SUM(pe.total\_engagement), 0) AS total\_engagement

FROM

tags t

LEFT JOIN

photo\_tags pt ON t.id = pt.tag\_id

LEFT JOIN

PhotoEngagement pe ON pt.photo\_id = pe.photo\_id

GROUP BY

t.id, t.tag\_name

)

SELECT

tag\_name,

total\_engagement

FROM

HashtagEngagement

ORDER BY

total\_engagement DESC

1. Are there any patterns or trends in user engagement based on demographics (age, location, gender) or posting times? How can these insights inform targeted marketing campaigns?

there can be patterns and trends in user engagement based on demographics and posting times. For example, younger audiences may be more active on social media platforms during evenings, while older audiences may be more active during the daytime. Also, users in different locations may have different preferences in terms of content and engagement.

These insights can inform targeted marketing campaigns by helping marketers understand when and how to reach their target audience. For example, if a brand is targeting a younger demographic, they may want to schedule posts in the evenings when they are most likely to be active. Similarly, if a brand is targeting a specific location, they can tailor their content to appeal to the preferences and interests of that particular audience.

By analyzing these patterns and trends, marketers can create targeted campaigns that are more likely to resonate with their intended audience, leading to higher engagement and ultimately, conversions. This data can also help marketers optimize their advertising spend by focusing on the times and locations where their target audience is most active.

1. Based on follower counts and engagement rates, which users would be ideal candidates for influencer marketing campaigns? How would you approach and collaborate with these influencers?

Ideal candidates for influencer marketing campaigns would be users who have a high number of followers and a high engagement rate on their posts. This indicates that their audience is actively engaged and interested in their content, making them more likely to be receptive to promotional messages.

To approach and collaborate with these influencers, you could start by reaching out to them through direct messages on social media platforms or through their business email if available. In your message, be sure to introduce yourself and your brand, explain why you think they would be a good fit for your campaign, and outline the collaboration details such as compensation, deliverables, and timeline.

When collaborating with influencers, it's important to establish clear expectations and guidelines for the campaign to ensure it aligns with your brand values and objectives. Provide them with creative freedom to showcase your product or service in a way that resonates with their audience, while also ensuring that they disclose any sponsored content in accordance with FTC guidelines.

1. Based on user behavior and engagement data, how would you segment the user base for targeted marketing campaigns or personalized recommendations?

-- Step 1: Calculate total likes and comments for each photo

WITH for\_photo\_engagement AS (

SELECT

p.id AS photo\_id,

p.user\_id,

COUNT(DISTINCT l.user\_id) AS like\_count,

COUNT(DISTINCT c.id) AS comment\_count

FROM

photos p

LEFT JOIN likes l ON p.id = l.photo\_id

LEFT JOIN comments c ON p.id = c.photo\_id

GROUP BY

p.id

),

-- Step 2: Aggregate total engagement per user

for\_user\_engagement AS (

SELECT

pe.user\_id,

SUM(pe.like\_count) AS total\_likes,

SUM(pe.comment\_count) AS total\_comments,

SUM(pe.like\_count + pe.comment\_count) AS total\_engagement

FROM

photo\_engagement pe

GROUP BY

pe.user\_id

)

-- Step 3: Rank users based on their engagement

SELECT

ue.user\_id,

u.username,

ue.total\_likes,

ue.total\_comments,

ue.total\_engagement,

RANK() OVER (ORDER BY ue.total\_engagement DESC) AS rnk

FROM

user\_engagement ue

JOIN users u ON ue.user\_id = u.id

ORDER BY

ue.total\_engagement DESC;

To segment the user base for targeted marketing campaigns or personalized recommendations based on user behaviour and engagement data, you could consider the following segmentation criteria:

1. Demographics: Segment users based on their age, gender, location, income level, education level, etc

2. Psychographics: Segment users based on their interests, values, attitudes, and lifestyle choices.

3. Behavioural data: Segment users based on their past interactions with your platform, such as pages visited, products purchased, frequency of visits, time spent on site, etc.

4. Engagement level: Segment users based on their level of engagement with your platform, such as active users, dormant users, new users, etc.

5. Purchase history: Segment users based on their past purchase history, such as high-value customers, frequent purchasers, one-time buyers, etc.

By analyzing user behaviour and engagement data using these segmentation criteria, you can create targeted marketing campaigns and personalized recommendations that resonate with specific user groups, ultimately driving higher engagement and conversions.

1. If data on ad campaigns (impressions, clicks, conversions) is available, how would you measure their effectiveness and optimize future campaigns?

1.Calculate the click-through rate (CTR) of the ad campaign by dividing the number of clicks by the number of impressions. A high CTR indicates that the ad is engaging and resonating with the audience.

2.Measure the conversion rate by dividing the number of conversions (e.g., purchases, sign-ups) by the number of clicks. This will help determine how effective the ad is at driving actions from users.

3. Utilize audience targeting options to reach specific demographics, interests, and behaviors that are most likely to convert. This will help improve campaign effectiveness by reaching the right audience.

4. By continuously measuring, analyzing, and optimizing ad campaigns based on these metrics, marketers can improve the effectiveness of their campaigns and achieve better results in the future.

1. How can you use user activity data to identify potential brand ambassadors or advocates who could help promote Instagram's initiatives or events?

One way to use user activity data to identify potential brand ambassadors or advocates on Instagram is to analyze their engagement metrics. Look for users who consistently like, comment, and share posts related to Instagram's initiatives or events. These individuals are likely to be passionate about the brand and are more likely to promote it to their own followers.

Additionally, you can track the number of followers and reach of these users to identify those with a larger influence and greater potential to reach a wider audience. You can also analyze the type of content they typically post and their level of engagement with their own followers to ensure they align with the brand's values and messaging.

By identifying and reaching out to these potential brand ambassadors or advocates, you can collaborate with them to promote Instagram's initiatives or events, leveraging their influence and credibility to reach a larger audience and drive engagement.

1. How would you approach this problem, if the objective and subjective questions weren't given?

About this project

Project Description:-

Imagine you're a data analyst working with the product team at Instagram. Your role involves analyzing user interactions and engagement with the Instagram app to provide valuable insights that can help the business grow. User analysis involves tracking how users engage with a digital product, such as a software application or a mobile app. The insights derived from this analysis can be used by various teams within the business. For example, the marketing team might use these insights to launch a new campaign, the product team might use them to decide on new features to build, and the development team might use them to improve the overall user experience. In this project, you'll be using SQL and MySQL Workbench as your tool to analyze Instagram user data and answer questions posed by the management team. Your insights will help the product manager and the rest of the team make informed decisions about the future direction of the Instagram app. Remember, the goal of this project is to use your SQL skills to extract meaningful insights from the data. Your findings could potentially influence the future development of one of the world's most popular social media platforms.

SQL Tasks:-

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.

Approach:-

For this project, I have used My SQL to extract the required data from the given database using the Join function, subqueries, Aggregation, where condition, Group by, Distinct and other functions required. keeping the Primary key and foreign key in consideration provided all the reports asked by the marketing department and Investor metrics department

1. Assuming there's a "User\_Interactions" table tracking user engagements, how can you update the "Engagement\_Type" column to change all instances of "Like" to "Heart" to align with Instagram's terminology?

update the Engagement\_Type column in the User\_Interactions table to change all instances of "Like" to "Heart", we can use an SQL UPDATE statement.

UPDATE User\_Interactions

SET Engagement\_Type = 'Heart'

WHERE Engagement\_Type = 'Like';