

Major Project -1



Social Media Interactions Analysis

This project will focus on analyzing user activities, hashtags, posts, and comments on a social media platform using SQL queries. It is designed to help you understand social media dynamics, including engagement patterns, user behaviors, and content trends. By working through these tasks, you will develop skills in writing efficient queries, aggregating data, and deriving actionable insights from a database.

Project Scope

In this major project, you will be tasked with creating SQL queries to address various aspects of social media interactions. Each question is designed to explore different data points that provide insights into user behavior, trending hashtags, and post performance.

Project Questions

1. Identify Users by Location

Write a query to find all posts made by users in specific locations such as 'Agra', 'Maharashtra', and 'West Bengal'.

Hint: Focus on filtering users by location.

2. Determine the Most Followed Hashtags

Write a query to list the top 5 most-followed hashtags on the platform.

Hint: Join relevant tables to calculate the total follows for each hashtag.

3. Find the Most Used Hashtags

Identify the top 10 most-used hashtags in posts.

Hint: Count how many times each hashtag appears in posts.

4. Identify the Most Inactive User

Write a query to find users who have never made any posts on the platform.

Hint: Use a subquery to identify these users.

5. Identify the Posts with the Most Likes

Write a query to find the posts that have received the highest number of likes.

Hint: Count the number of likes for each post.

6. Calculate Average Posts per User

Write a query to determine the average number of posts made by users.

Hint: Consider dividing the total number of posts by the number of unique users.

7. Track the Number of Logins per User

Write a query to track the total number of logins made by each user.

Hint: Join user and login tables.

8. Identify a User Who Liked Every Single Post

Write a query to find any user who has liked every post on the platform.

Hint: Compare the number of posts with the number of likes by this user.

9. Find Users Who Never Commented

Write a query to find users who have never commented on any post.

Hint: Use a subquery to exclude users who have commented.

10. Identify a User Who Commented on Every Post

Write a query to find any user who has commented on every post on the platform.

Hint: Compare the number of posts with the number of comments by this user.

11. Identify Users Not Followed by Anyone

Write a query to find users who are not followed by any other users.

Hint: Use the follows table to find users who have no followers.

12. Identify Users Who Are Not Following Anyone

Write a query to find users who are not following anyone.

Hint: Use the follows table to identify users who are not following others.

13. Find Users Who Have Posted More than 5 Times

Write a query to find users who have made more than five posts.

Hint: Group the posts by user and filter the results based on the number of posts.

14. Identify Users with More than 40 Followers

Write a query to find users who have more than 40 followers.

Hint: Group the followers and filter the result for those with a high follower count.

15. Search for Specific Words in Comments

Write a query to find comments containing specific words like "good" or "beautiful."

Hint: Use regular expressions to search for these words.

16. Identify the Longest Captions in Posts

Write a query to find the posts with the longest captions.

Hint: Calculate the length of each caption and sort them to find the top 5 longest ones.

Submission: The Entire assignment should be submitted by the end of the week (Friday,13/09/2024),You have to Submit one SQL Script in which all the Answer Queries included. Upload the script in your GitHub Account.