**Queries Performed on the Dataset**

**1. Demographics by Interest:**

This query will show the number of users for each gender who have a specific interest:

SQL

SELECT

Interests,

Gender,

COUNT(DISTINCT UserID) AS Users

FROM SocialMediaUsersDataset

GROUP BY Interests, Gender

ORDER BY Interests, Gender;

**2. Most Popular Interests:**

This query will identify the most popular interests among all users:

SQL

SELECT

Interests,

COUNT(DISTINCT SocialMediaUsersDataset.UserID) AS Users

FROM SocialMediaUsersDataset

GROUP BY Interests

ORDER BY Users DESC

LIMIT 10;

**3. User Distribution by Age and City:**

This query will show how users are distributed across different age groups (decades) and cities:

SQL

SELECT

City,

FLOOR(DATEDIFF(CURDATE(), SocialMediaUsersDataset.DOB) / 365.25) AS Age\_Decade,

COUNT(DISTINCT SocialMediaUsersDataset.UserID) AS Users

FROM SocialMediaUsersDataset

GROUP BY City, Age\_Decade

ORDER BY City, Age\_Decade;

**4. User Overlap in Interests:**

This query will identify users who share multiple interests:

SQL

WITH UserInterestsByUserID AS (

SELECT UserID, COUNT(\*) AS InterestCount

FROM UserInterests

GROUP BY UserID

HAVING InterestCount > 1

)

SELECT

u1.UserID AS UserID1,

u2.UserID AS UserID2,

COUNT(ui1.InterestID) AS SharedInterests

FROM UserInterestsByUserID u1

INNER JOIN SocialMediaUsersDataset ui1 ON u1.UserID = ui1.UserID

INNER JOIN SocialMediaUsersDataset u2 ON u1.UserID < u2.UserID

INNER JOIN SocialMediaUsersDataset ui2 ON u2.UserID = ui2.UserID

ON ui1.InterestID = ui2.InterestID

GROUP BY u1.UserID, u2.UserID

ORDER BY SharedInterests DESC

LIMIT 10;