INSTAGRAM USER ANALYTICS

PROJECT DESCRIPTION: This project is all about the Instagram insights. I have converted the data of Instagram into meaningful data using some of the MySQL queries by performing the given tasks.

APPROACH: Firstly, I have reviewed the data given so that I can get an idea of it. I have gone through the tables to know which are primary keys and foreign keys so that I can connect the tables. I have mainly used grouping and sorting functions to complete the tasks.
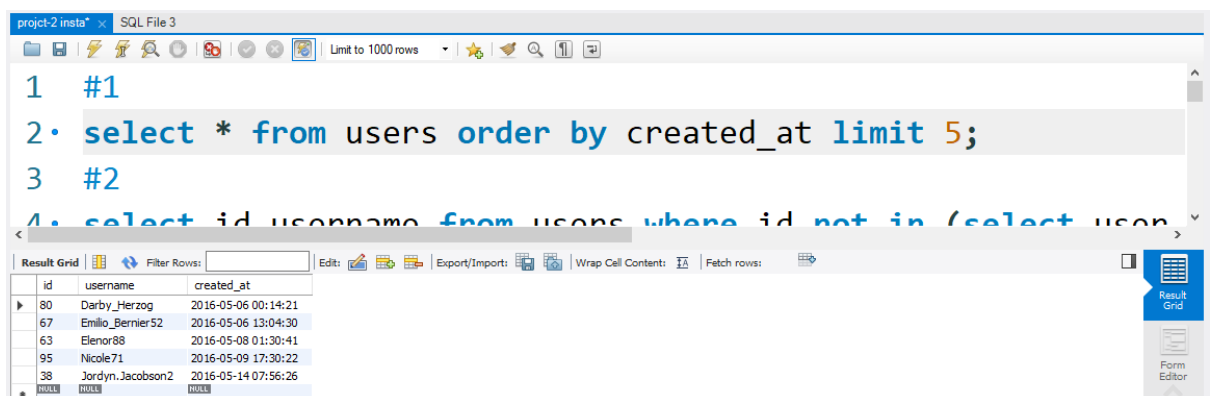
TECH-STACK USED: I have used MySQL workbench 8.0 CE as a database management tool. It provided a robust environment for designing and managing the data.

INSIGHTS: I have extracted valuable insights from the Instagram user analytics project, such as the oldest user on Instagram, and the most likes for a single photo. I also identified peak days for user engagement, helping optimize posting schedules for better reach.

RESULTS:

A) MARKETING ANALYSIS:

1) **Loyal User Reward:** Identify the five oldest users of Instagram from the database

Result: Darby_Herzog, Emilio_Bernier52, Elenor88, Nicole71, Jordyn.Jacobson2 these are the oldest users of Instagram.

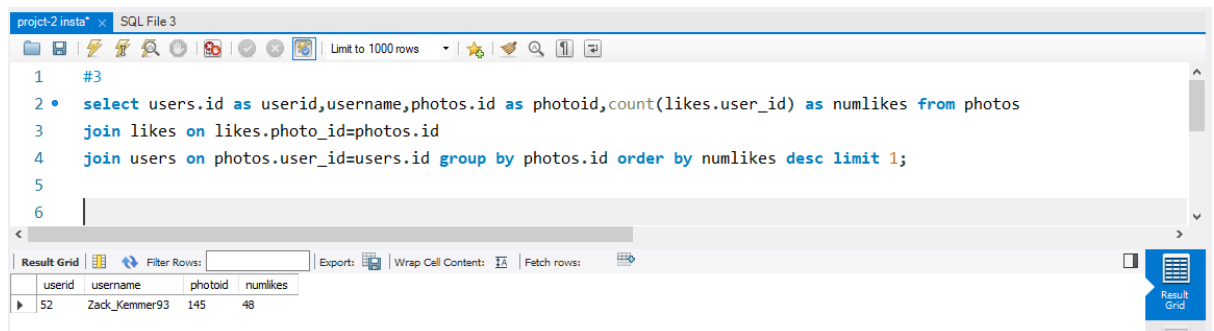**2) Inactive User Engagement:** Identify users who never posted on Instagram.

```sql
#2
select id,username from users
  where id not in (select user_id from photos where user_id is not null);
```
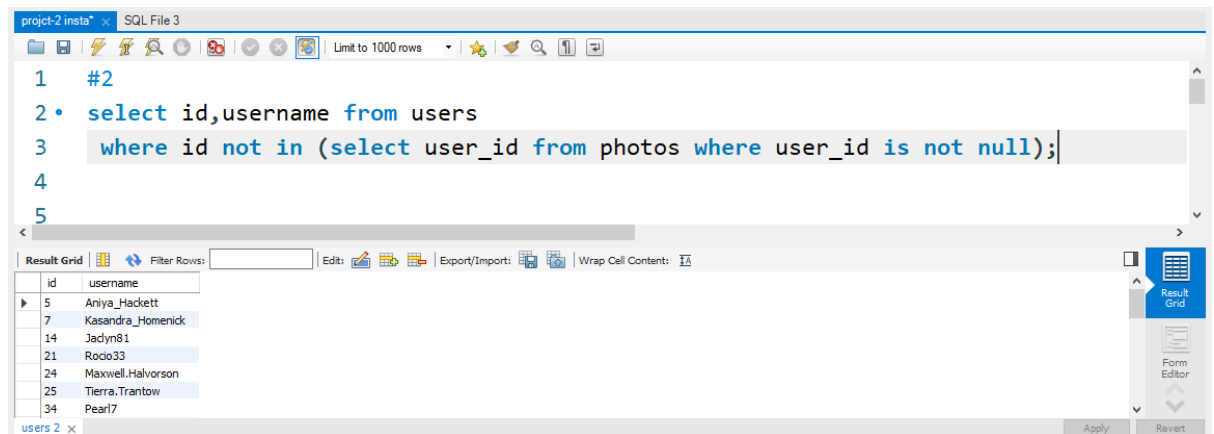
Result: Below below-mentioned IDs and usernames have zero posts.

id	username
5	Aniya_Hackett
7	Kasandra_Homenick
14	Jaclyn81
21	Rocio33
24	Maxwell.Halvorson
25	Tierra.Trantow
34	Pearl7
36	Ollie_Ledner37
41	Mckenna17
45	David.Osinski47
49	Morgan.Kassulke
53	Linnea59
54	Duane60
57	Julien_Schmidt
66	Mike.Auer39
68	Franco_Keebler64
71	Nia_Haag
74	Hulda.Macejkovic
75	Leslie67
76	Janelle.Nikolaus81
80	Darby_Herzog
81	Esther.Zulauf61
83	Bartholome.Bernhard
89	Jessyca_West
90	Esmeralda.Mraz57
91	Bethany20

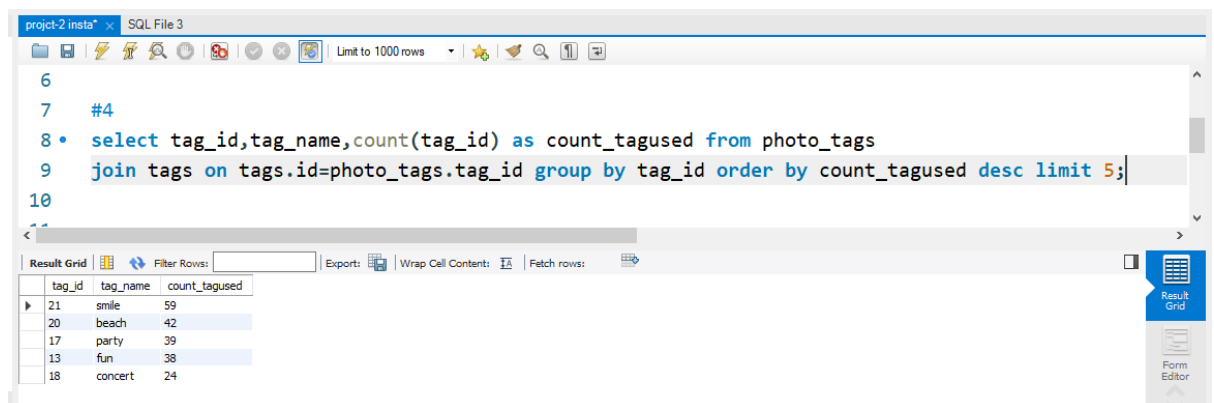**3) Context Winner Declaration:** The user with the most likes on a single photo.


```
      #3
    • select users.id as userid,username,photos.id as photoid,count(likes.user_id) as numlikes from photos
      join likes on likes.photo_id=photos.id
      join users on photos.user_id=users.id group by photos.id order by numlikes desc limit 1;
```

userid	username	photoid	numlikes
52	Zack_Kemmer93	145	48

Result: The user with the **id-52** and username-**Zack_kemmer93** has the most likes on a single photo which has an id-**145**, and has **48** likes.

4) Hashtag Research: Top 5 most commonly used hashtags on Instagram.


```
      #4
    • select tag_id,tag_name,count(tag_id) as count_tagused from photo_tags
      join tags on tags.id=photo_tags.tag_id group by tag_id order by count_tagused desc limit 5;
```

tag_id	tag_name	count_tagused
21	smile	59
20	beach	42
17	party	39
13	fun	38
18	concert	24

Result: smile, beach, party, fun, concert are the five most commonly used hashtags on Instagram

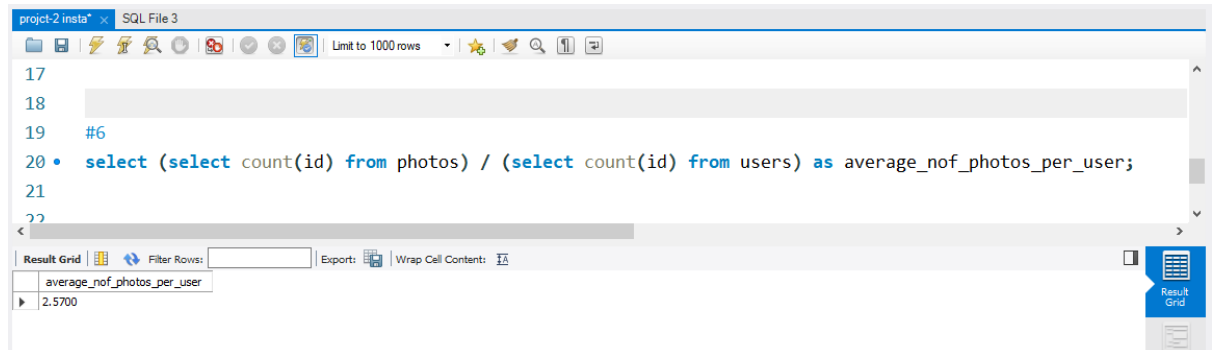**5) Ad Campaign Launch:** Determine the day of the week when most users register on Instagram.


```
      #5
    • select dayname(created_at) as day_name, count(id) as num from users
      group by day_name order by num desc limit 1;
```

day_name	num
Thursday	16

Result: Thursday is the day when most of the users got registered on Instagram.

B) Investor metric:

   1) **User engagement:** Provide the total number of photos on Instagram divided by total number of users on Instagram.
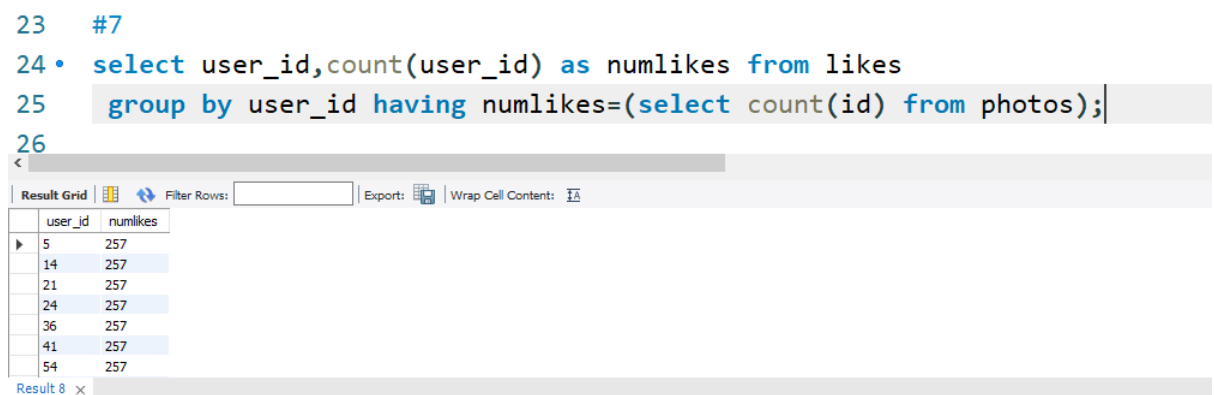

Result: **2.5700** is the average

   2) **Bots & Fake Account:** Identify users who liked every single photo on Instagram

Result: Below provided user **IDs** are potential bots who have liked all photos on Instagram.

user_id	numlikes
5	257
14	257
21	257
24	257
36	257
41	257
54	257
57	257
66	257
71	257
75	257
76	257
91	257