Instagram User Analytics

<u>Project Description</u>: This project aims to extract useful insights from raw data using various database management tools and even visualize them to increase the platform's efficiency.

<u>Project Approach</u>: The project was executed using SQL, where quarries were utilized to create a database from the provided raw data. Sorting and data extracting quarries were then implemented to obtain the required data.

<u>Tech Stack Used</u>: The tech stack used included MySQL Workbench.

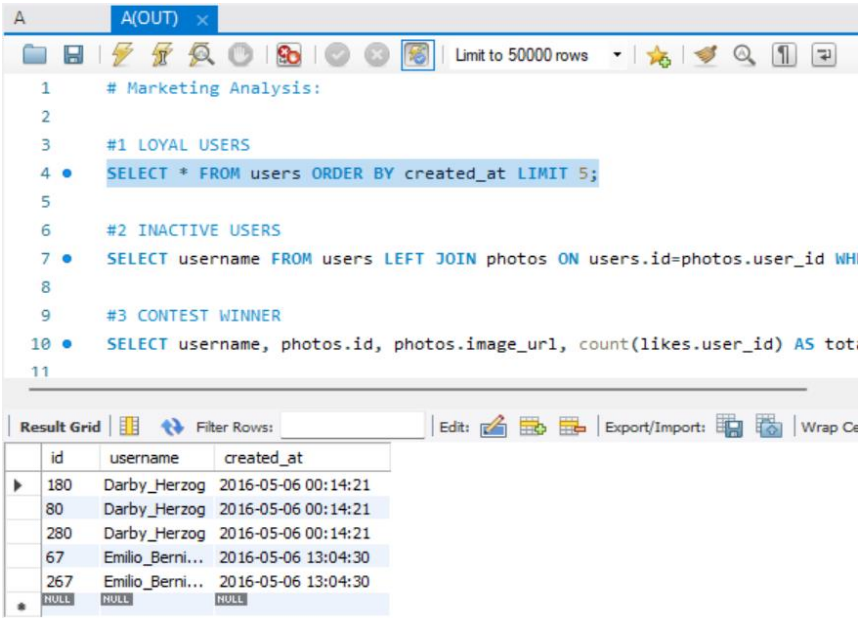
<u>Project Insight</u>

(A) <u>Marketing Analysis</u>:

1. Identify the five oldest users on Instagram from the provided database.

CODE:

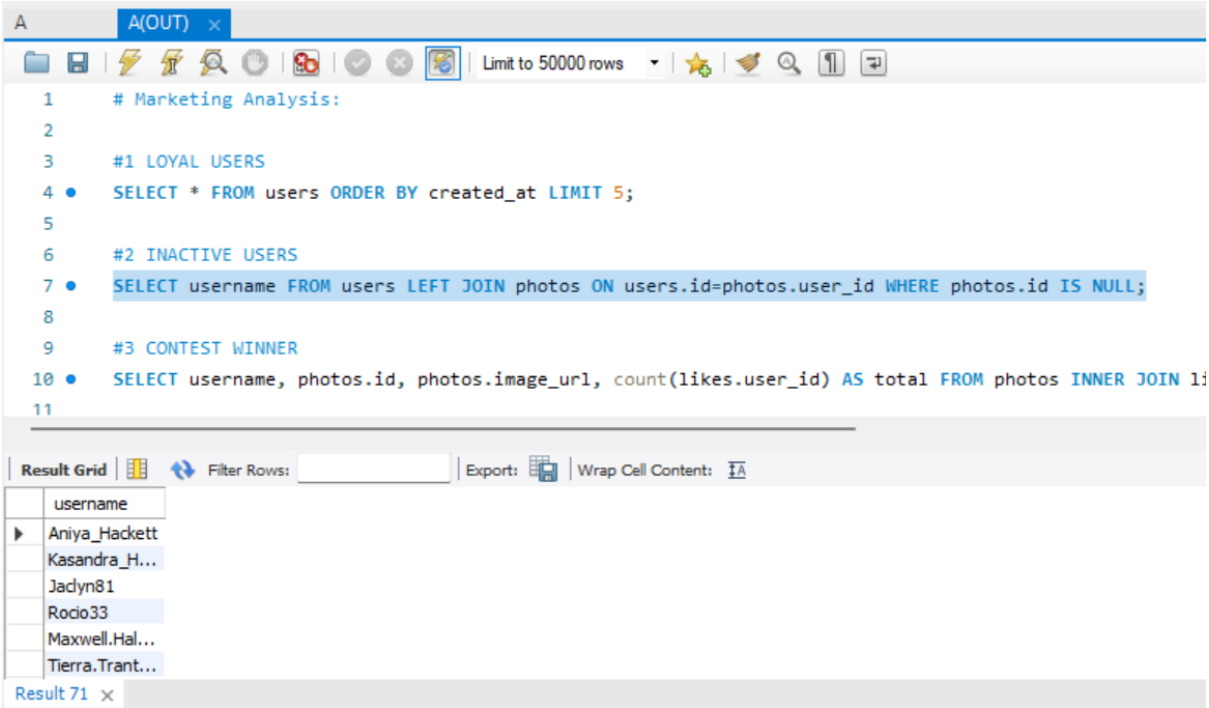
SELECT * FROM users ORDER BY created_at LIMIT 5;



2. Identify users who have never posted a single photo on Instagram.

CODE:

SELECT username FROM users LEFT JOIN photos ON users.id=photos.user_id WHERE photos.id IS NULL;



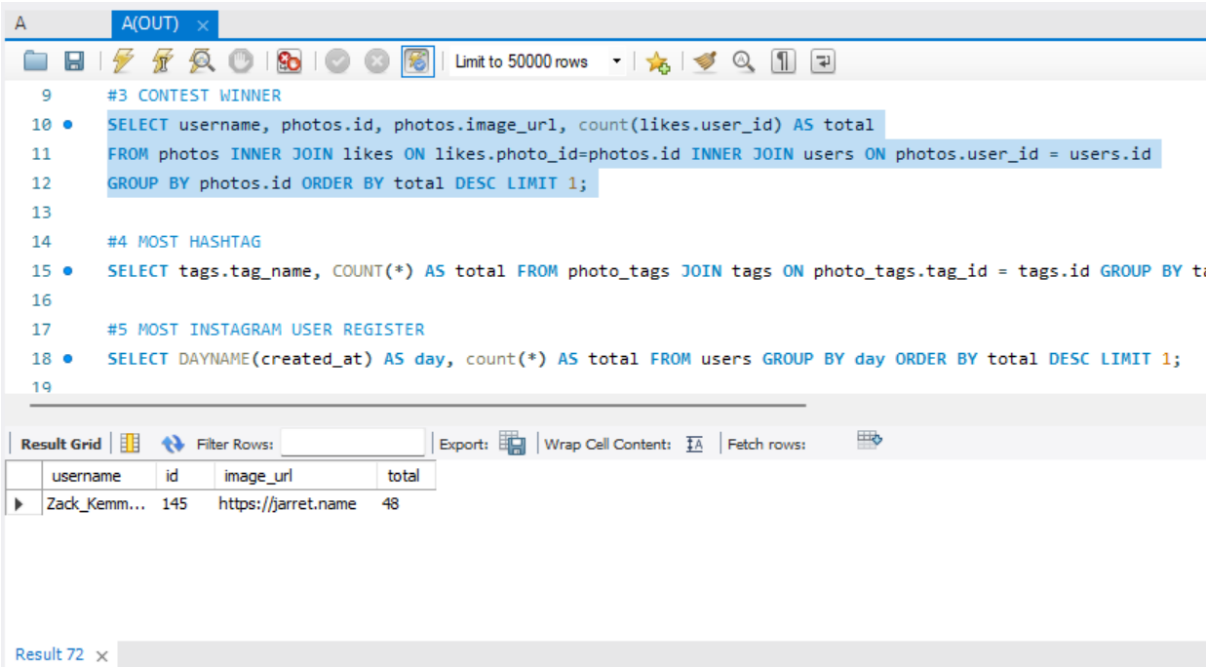
3. Determine the winner of the contest and provide their details to the team.

CODE:

SELECT username, photos.id, photos.image_url, count(likes.user_id) AS total

FROM photos INNER JOIN likes ON likes.photo_id=photos.id INNER JOIN users ON photos.user_id = users.id

GROUP BY photos.id ORDER BY total DESC LIMIT 1;



4. Identify and suggest the top five most commonly used hashtags on the platform.

CODE:

SELECT tags.tag_name, COUNT(*) AS total

FROM photo_tags JOIN tags ON photo_tags.tag_id = tags.id

ROUP BY tags.id ORDER BY total DESC LIMIT 5;

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#4 MOST HASHTAG
SELECT tags.tag_name, COUNT(*) AS total
FROM photo_tags JOIN tags ON photo_tags.tag_id = tags.id
GROUP BY tags.id ORDER BY total DESC LIMIT 5;

#5 MOST INSTAGRAM USER REGISTER
SELECT DAYNAME(created_at) AS day, count(*) AS total FROM users GR

# Investor Metrics:
```

tag_name	total
smile	59
beach	42
party	39
fun	38
concert	24

5. Determine the day of the week when most users register on Instagram. Provide insights on when to schedule an ad campaign.

CODE:

SELECT DAYNAME(created_at) AS day, count(*) AS total

FROM users GROUP BY day ORDER BY total DESC LIMIT 1;

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A(OUT)

Limit to 50000 rows

```
FROM photo_tags JOIN tags ON photo_tags.tag_id = tags.id
GROUP BY tags.id ORDER BY total DESC LIMIT 5;

#5 MOST INSTAGRAM USER REGISTER
SELECT DAYNAME(created_at) AS day, count(*) AS total
FROM users GROUP BY day ORDER BY total DESC LIMIT 1;

# Investor Metrics:

#1 USERARANGEMENT
select *from photos.users;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

day	total
Thursday	48

Result 75

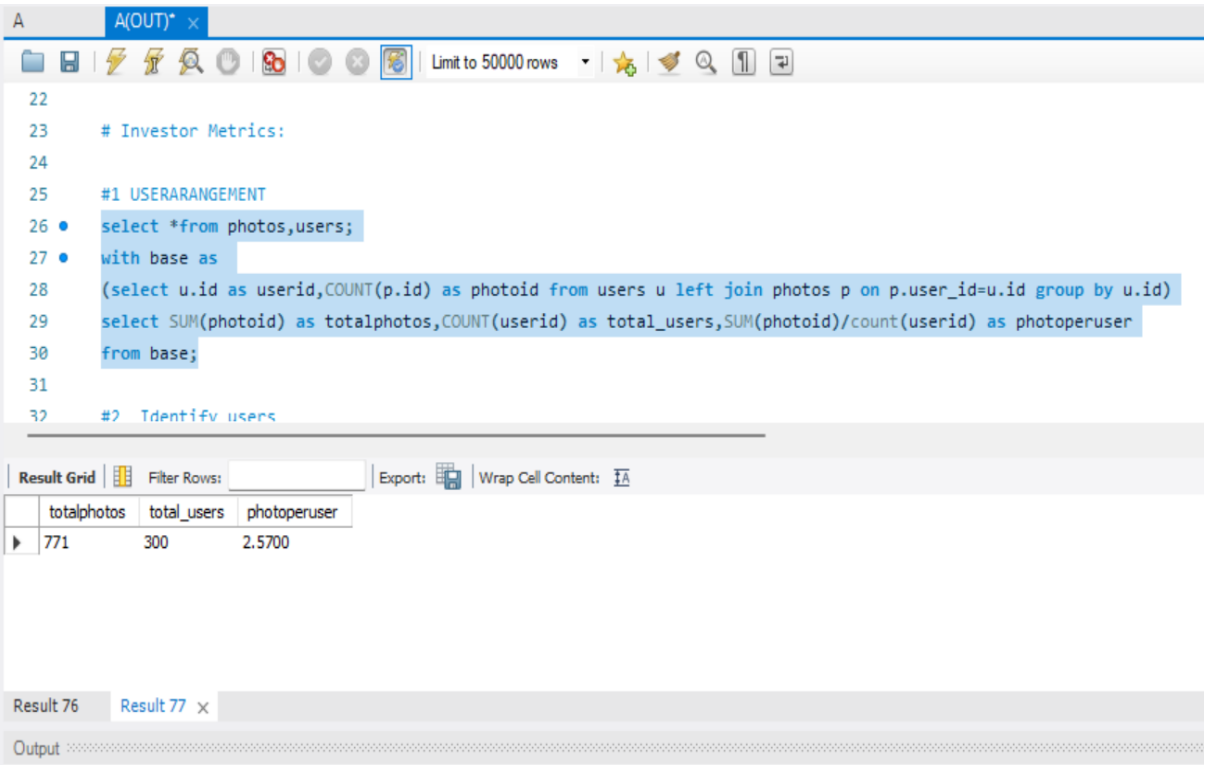
Output

B) Investor Metrics:

1. **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.**

CODE:

```
select *from photos,users;
with base as
(select u.id as userid,COUNT(p.id) as photoid from users u left
join photos p on p.user_id=u.id group by u.id)
select SUM(photoid) as totalphotos,COUNT(userid) as
total_users,SUM(photoid)/count(userid) as photoperuser
from base;
```



2. **Identify users (potential bots) who have liked every single photo on the site, as this is not typically possible for a normal user.**

CODE:

SELECT u.username, COUNT(l.photo_id) AS likes FROM users u

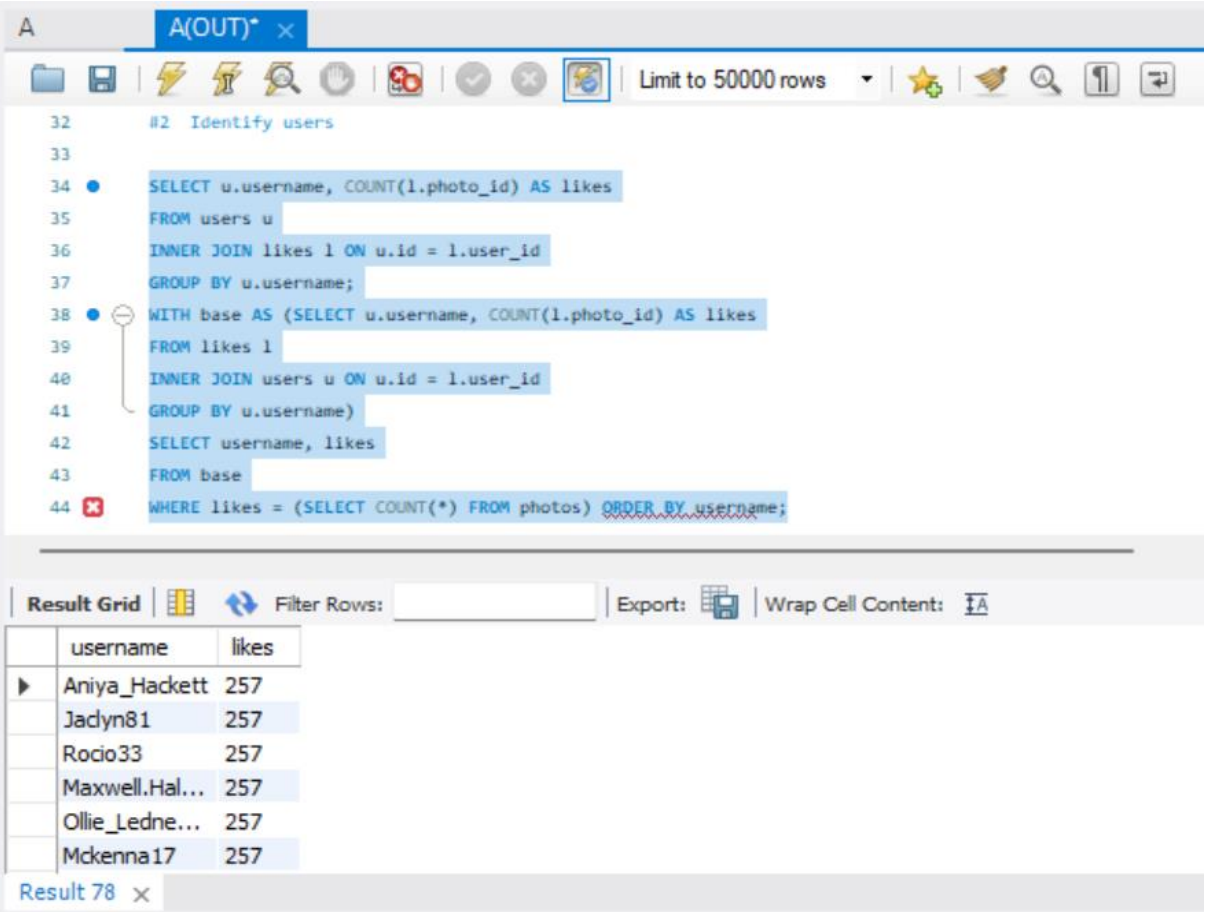
INNER JOIN likes l ON u.id = l.user_id GROUP BY u.username;

WITH base AS (SELECT u.username, COUNT(l.photo_id) AS likes

FROM likes l INNER JOIN users u ON u.id = l.user_id

GROUP BY u.username) SELECT username, likes

FROM base WHERE likes = (SELECT COUNT(*) FROM photos) ORDER BY username;



username	likes
Aniya_Hackett	257
Jaclyn81	257
Rocio33	257
Maxwell.Hal...	257
Ollie_Ledne...	257
Mckenna17	257

THANK FOR GIVING ME THE OPPORTUNITY TO DO THE PROJECT .