Instagram Analysis Project

Name: Tanmay Dangat
Project 2

1. **Project Description:** As per the instructions and report, I have assigned a task to perform the data analysis of the Instagram User . We have to work on the provided dataset and collect the useful insights that can help the marketing team for further campaigns.

2. **Approach** :To perform all the queries and complete the given task. According to the instructions Create a database in MYSQL Workbench, execute all the queries , analyze it and collect the useful insights out of it

3. **Tech Stack used :** To perform the queries I have used MYSQL workbench because it is a powerful tool for database development, management, and administration specifically designed for MySQL databases , and Google docs to make the analysis of the project

4. **Insights:** As a beginner, it helped me to understand how the complex queries work and how to understand the business and that insights actually works.

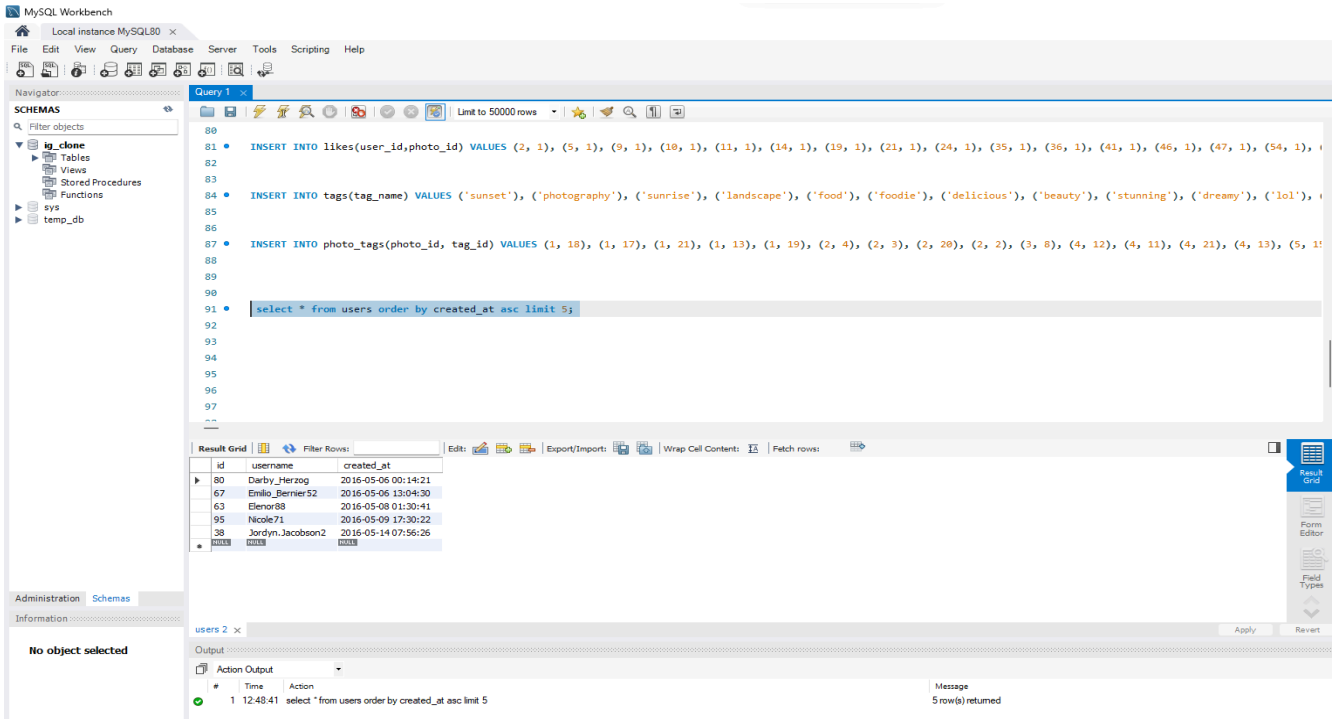
5. **Results:** Following are all the executed queries with the Output

A) Marketing Survey

- 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.

Syntax:

```
select * from users order by created_at asc limit 5;
```



2.**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.

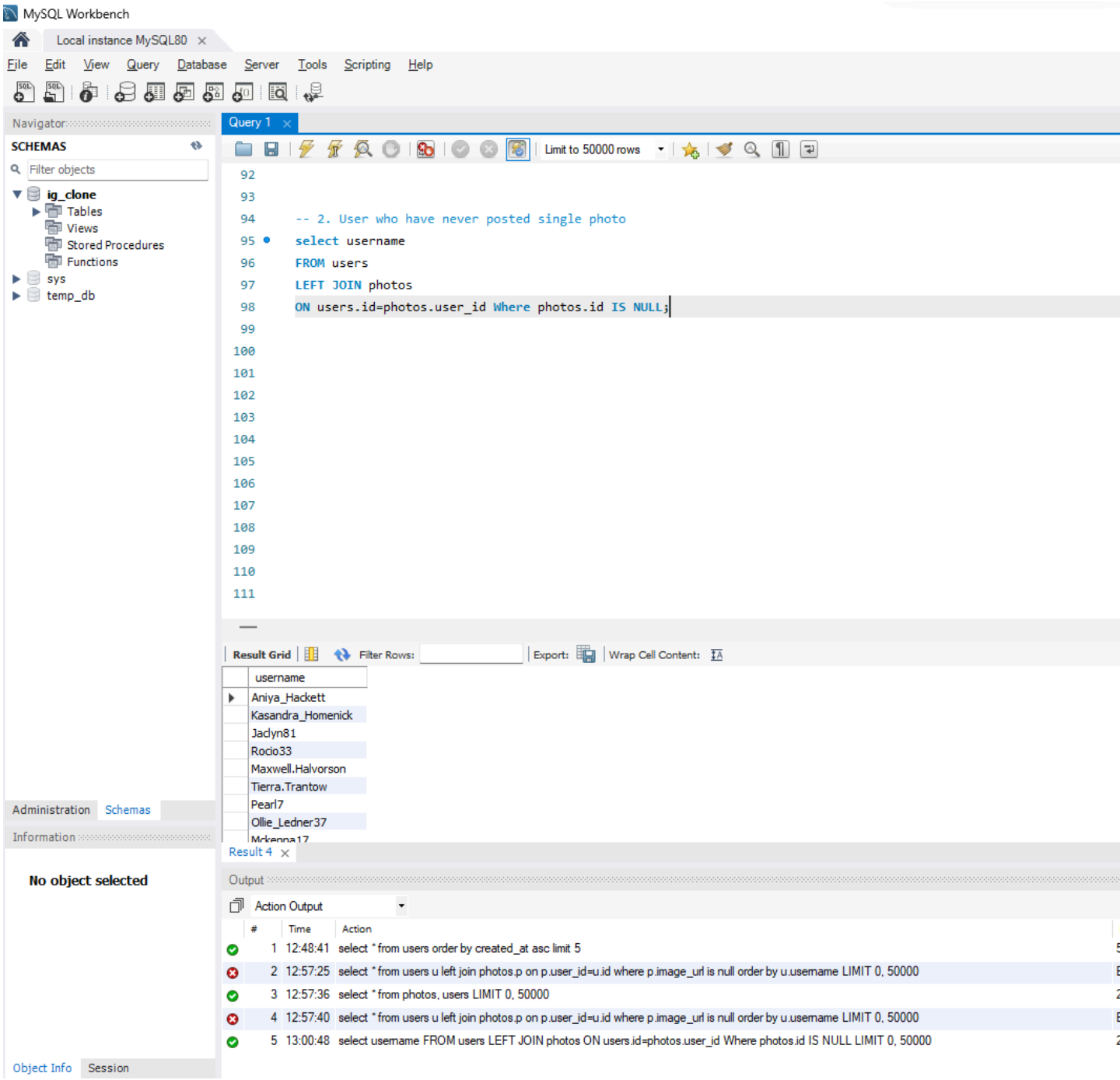
Syntax:

select username

FROM users

LEFT JOIN photos

ON users.id=photos.user_id Where photos.id IS NULL;


MySQL Workbench
Local instance MySQL80
File Edit View Query Database Server Tools Scripting Help
Navigator
SCHEMAS
Filter objects
ig_clone
Tables
Views
Stored Procedures
Functions
sys
temp_db
Administration Schemas
Information
No object selected
Object Info Session
Query 1
Limit to 50000 rows
92
93
94 -- 2. User who have never posted single photo
95 select username
96 FROM users
97 LEFT JOIN photos
98 ON users.id=photos.user_id Where photos.id IS NULL;
99
100
101
102
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104
105
106
107
108
109
110
111
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
username
Aniya_Hackett
Kasandra_Homenick
Jadyn81
Rocio33
Maxwell.Halvorson
Tierra.Trantow
Pearl7
Ollie_Ledner37
Result 4
Output
Action Output
Time Action
1 12:48:41 select * from users order by created_at asc limit 5
2 12:57:25 select * from users u left join photos.p on p.user_id=u.id where p.image_url is null order by u.username LIMIT 0, 50000
3 12:57:36 select * from photos, users LIMIT 0, 50000
4 12:57:40 select * from users u left join photos.p on p.user_id=u.id where p.image_url is null order by u.username LIMIT 0, 50000
5 13:00:48 select username FROM users LEFT JOIN photos ON users.id=photos.user_id Where photos.id IS NULL LIMIT 0, 50000

3.**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.

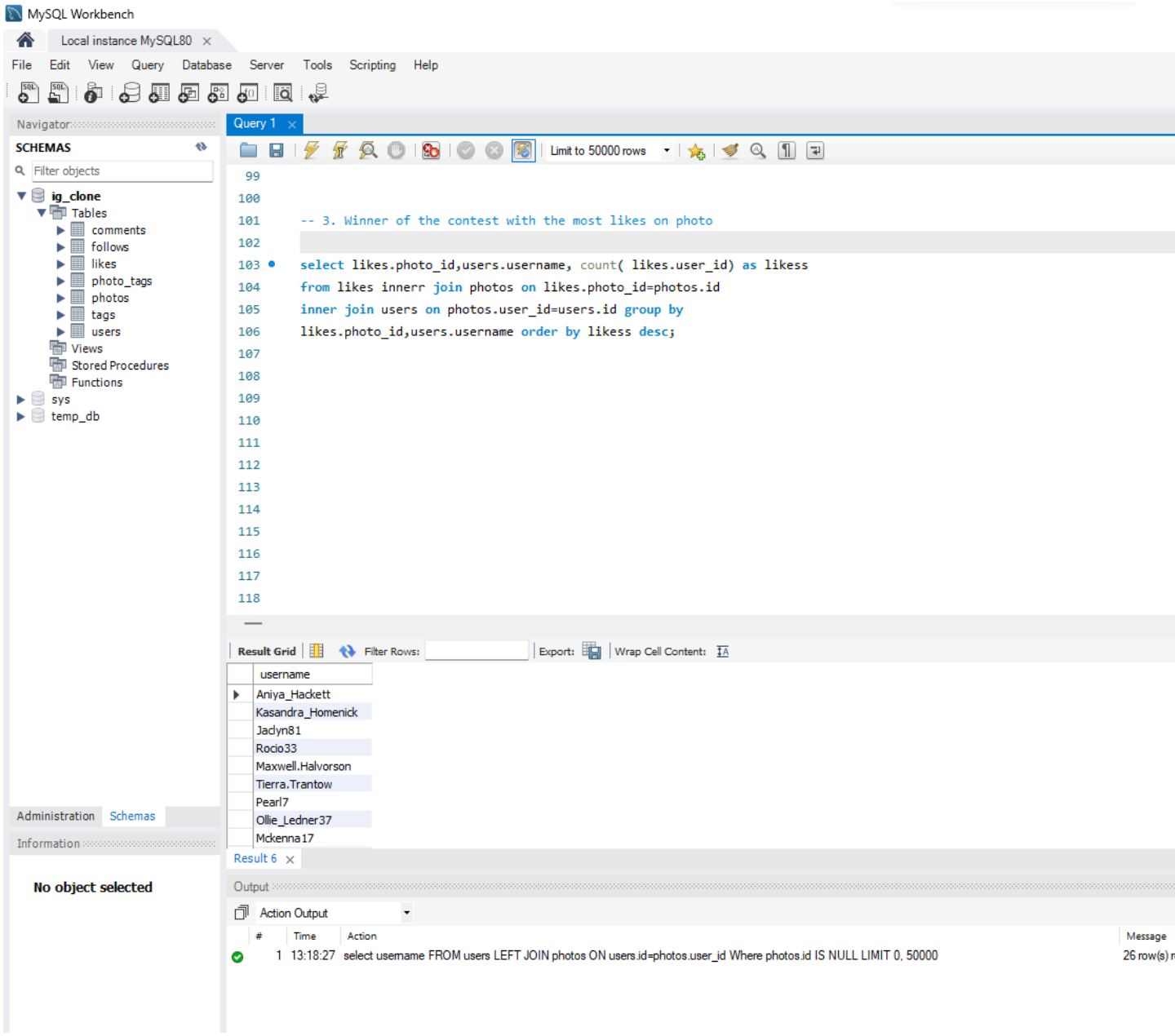
Syntax:

```
select likes.photo_id,users.username, count( likes.user_id) as likess

from likes innerr join photos on likes.photo_id=photos.id

inner join users on photos.user_id=users.id group by

likes.photo_id,users.username order by likess desc;
```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photo_tags
photos
tags
users
Views
Stored Procedures
Functions
sys
temp_db
Administration Schemas
Information
No object selected
Query 1
Limit to 50000 rows
99
100
101 -- 3. Winner of the contest with the most likes on photo
102
103 select likes.photo_id,users.username, count(likes.user_id) as likess
104 from likes innerr join photos on likes.photo_id=photos.id
105 inner join users on photos.user_id=users.id group by
106 likes.photo_id,users.username order by likess desc;
107
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116
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118
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
username
Aniya_Hackett
Kasandra_Homenick
Jaclyn81
Rocio33
Maxwell.Halvorson
Tierra.Trantow
Pearl7
Ollie_Ledner37
Mckenna17
Result 6
Output
Action Output
Time Action Message
1 13:18:27 select username FROM users LEFT JOIN photos ON users.id=photos.user_id Where photos.id IS NULL LIMIT 0, 50000 26 row(s)

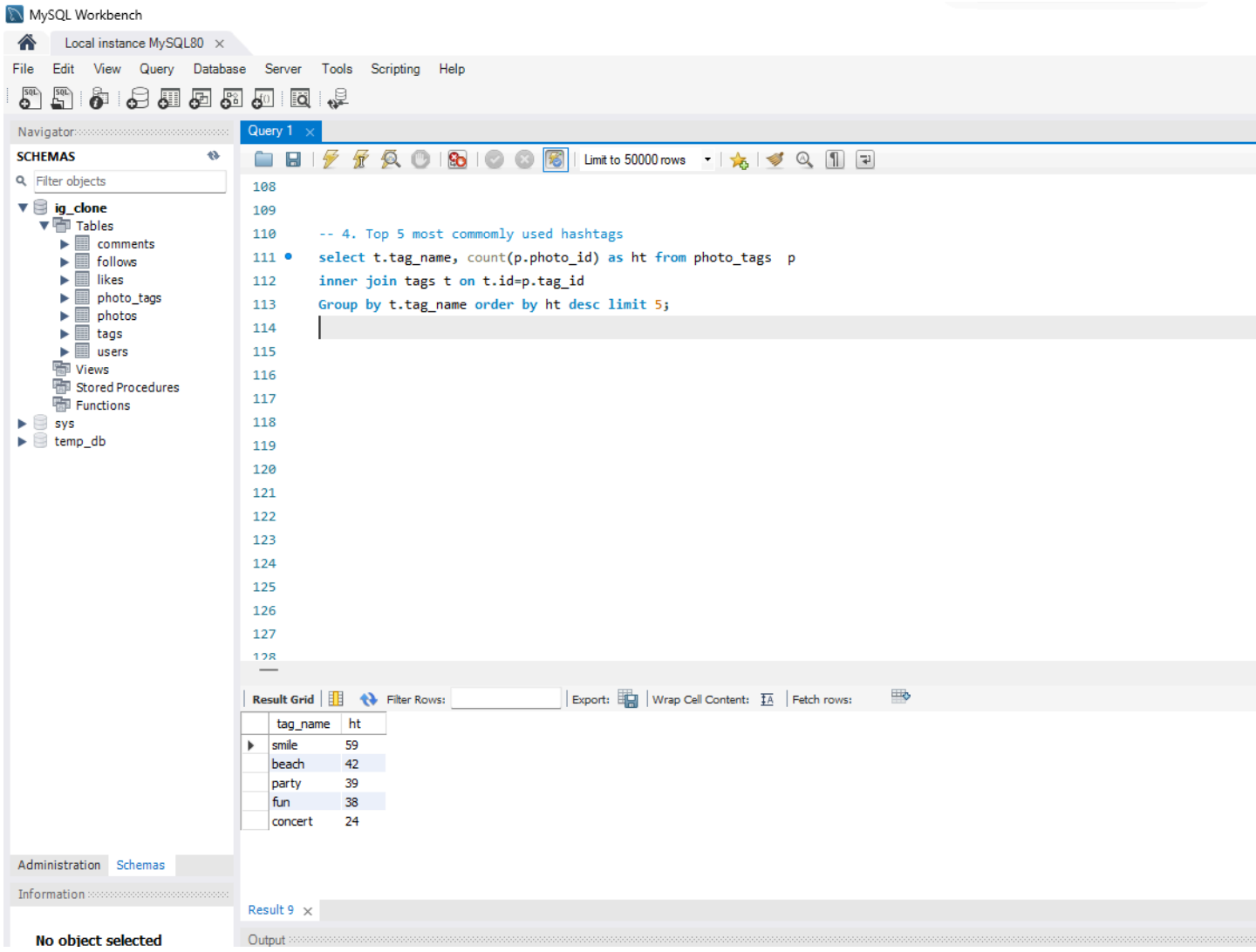
4.**Hashtag Research:** A partner brand wants to know the most popular hashtags to use in their posts to reach the most people.
Your Task: Identify and suggest the top five most commonly used hashtags on the platform.

Syntax:

```
select t.tag_name, count(p.photo_id) as ht from photo_tags  p

inner join tags t on t.id=p.tag_id

Group by t.tag_name order by ht desc limit 5;
```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Functions
sys
temp_db
Administration Schemas
Information
No object selected
Query 1
Limit to 50000 rows
108
109
110 -- 4. Top 5 most commomly used hashtags
111 select t.tag_name, count(p.photo_id) as ht from photo_tags p
112 inner join tags t on t.id=p.tag_id
113 Group by t.tag_name order by ht desc limit 5;
114
115
116
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120
121
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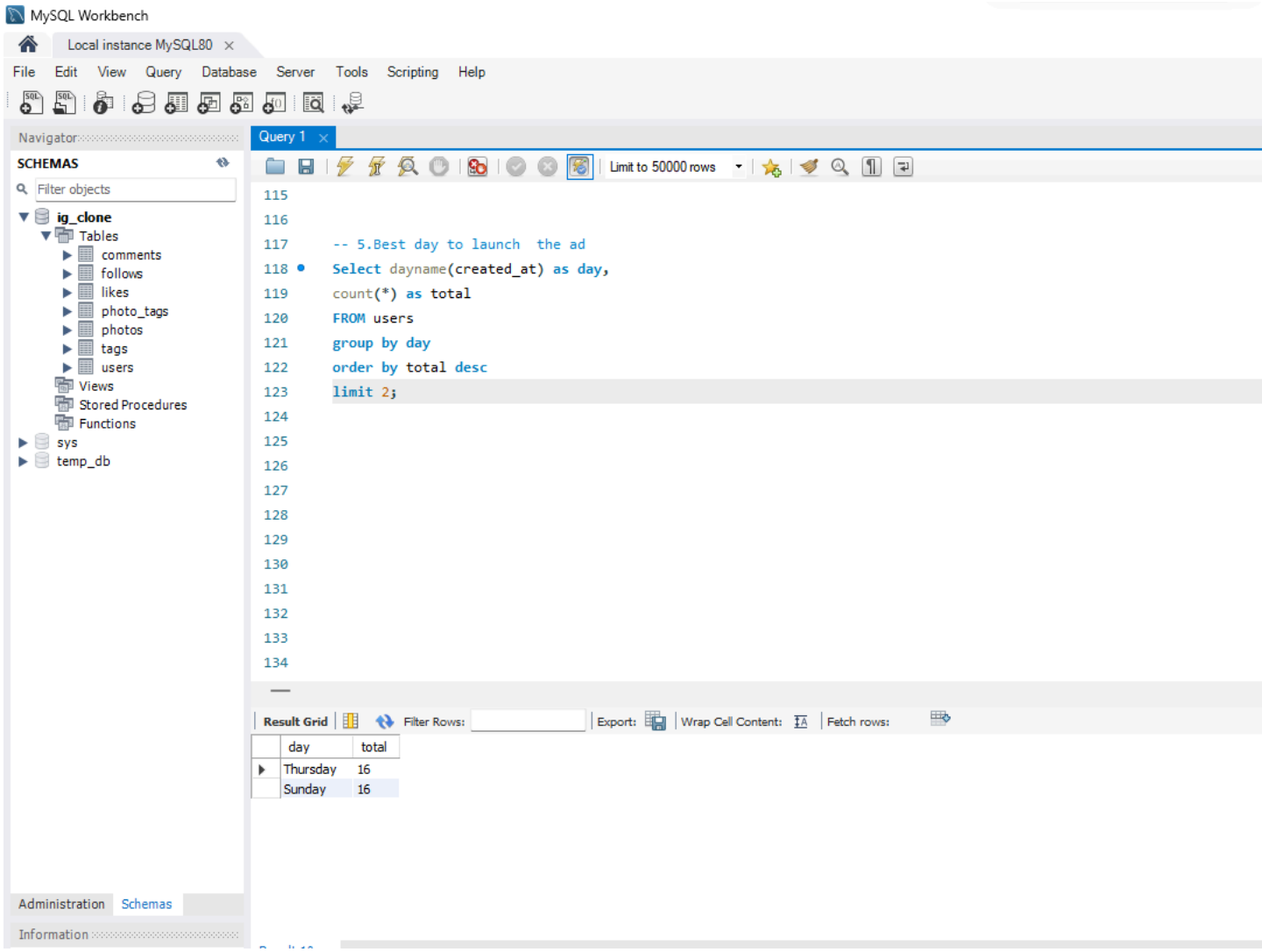
124
125
126
127
128
Result Grid
Filter Rows:
Export:
Wrap Cell Content:
Fetch rows:
tag_name ht
smile 59
beach 42
party 39
fun 38
concert 24
Result 9
Output

5.**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.

Syntax:

```
Select dayname(created_at) as day,
count(*) as total
FROM users
group by day
order by total desc
limit 2;
```



B) Investor Metrics:

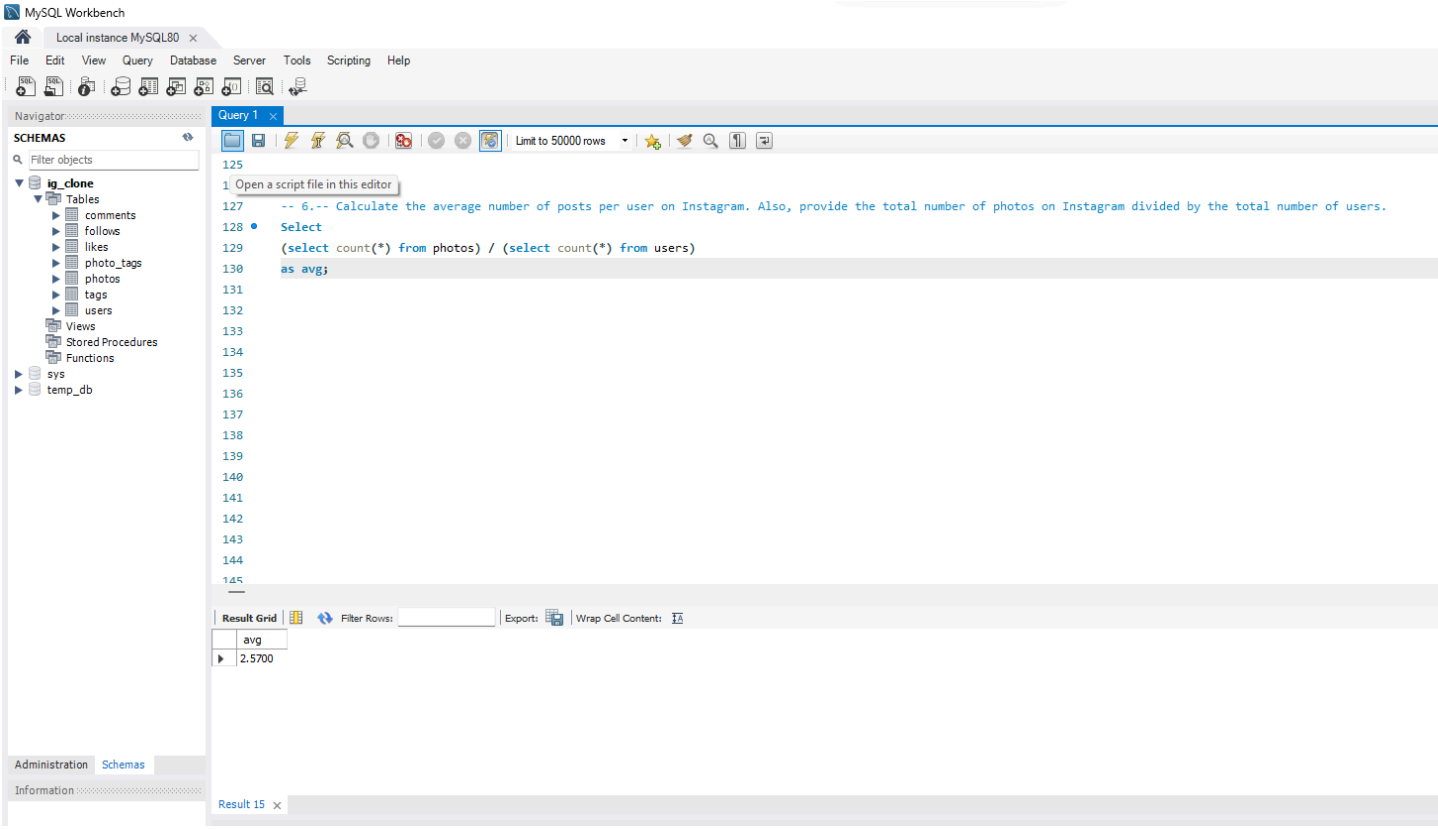
1. **User Engagement:** Investors want to know if users are still active and posting on Instagram or if they are making fewer posts.
   Your Task: Calculate the average number of posts per user on Instagram. Also, provide the total number of photos on Instagram divided by the total number of users.

Syntax

Select

(select count(*) from photos) / (select count(*) from users)

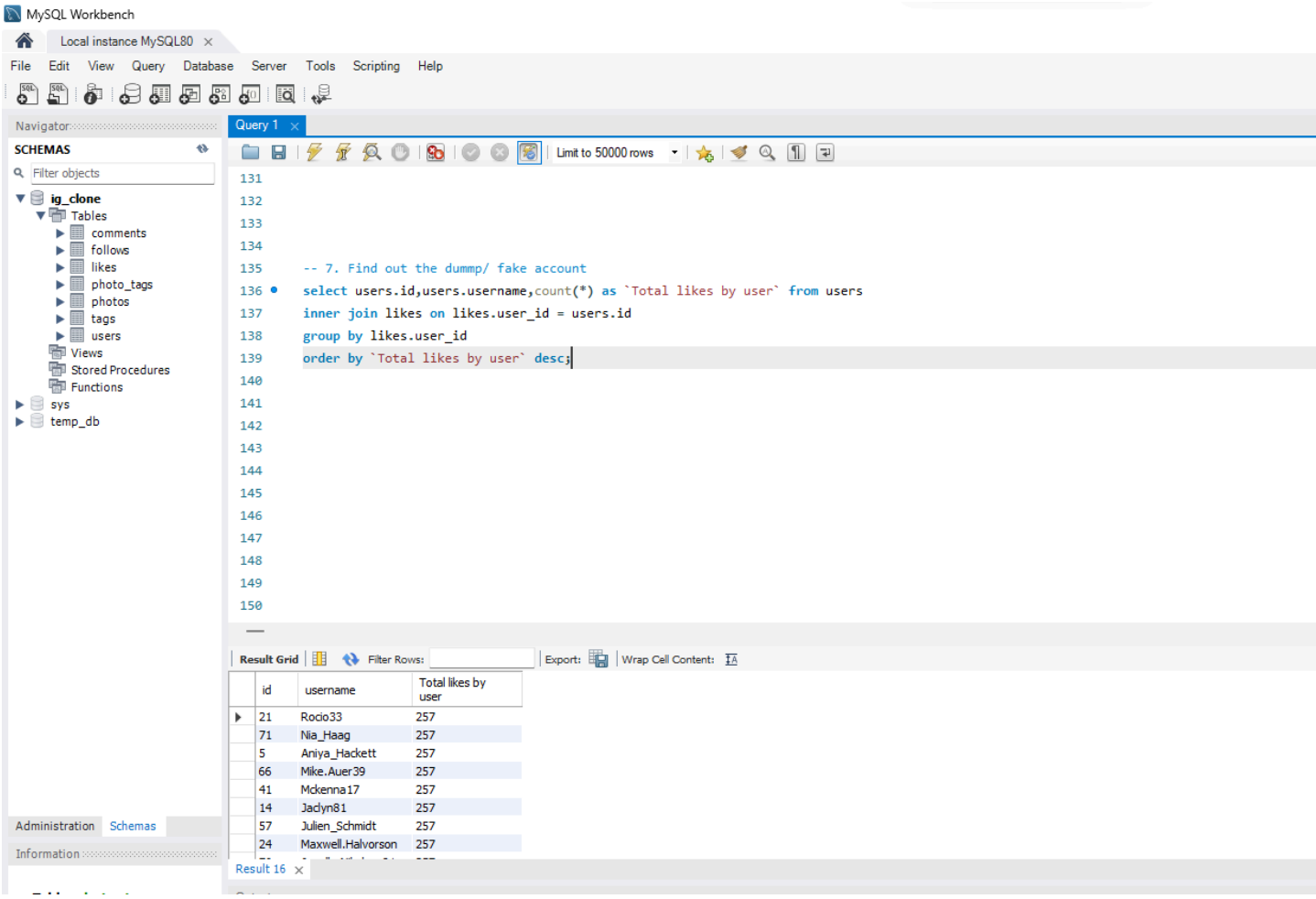
as avg;



2.**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.

Syntax

```
select users.id,users.username,count(*) as `Total likes by user` from users
inner join likes on likes.user_id = users.id
group by likes.user_id
order by `Total likes by user` desc;
```



Drive link:
Summary of the project:

During this project , I have learned a lot about . It helped me to understand the analysis , it provides useful and complex queries that made me understand more about the project. It also helped me to learn professionally based on what I have learned. Overall, the project was really beneficial. It improved my skills, gave me useful information, and helped me make better decisions