PROJECT – 2
Instagram User Analytics

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PROJECT DESCRIPTION

A user analysis of Instagram is necessary for the project, which includes information on the most devoted users, inactive users, most-liked photos, hashtag research, and the launch of an advertising campaign.
For the investors, insights are also needed on user engagement, bots, and fake accounts.

Mainly, locating business insights that may be applied by teams throughout the company to start a new marketing campaign decide which features to include in an app, monitor the app's success by gauging user engagement, and enhance the overall experience while promoting corporate growth.

APPROACH

Database creation: Using the DDL and DML SQL queries provided by the product manager (as per project) in the MySQL database, the values were created and entered using MySQL Workbench.

Extraction of insights: Following database creation, necessary insights are derived from the database tables by executing SQL queries in MySQL Workbench.

TECH-STACK USED

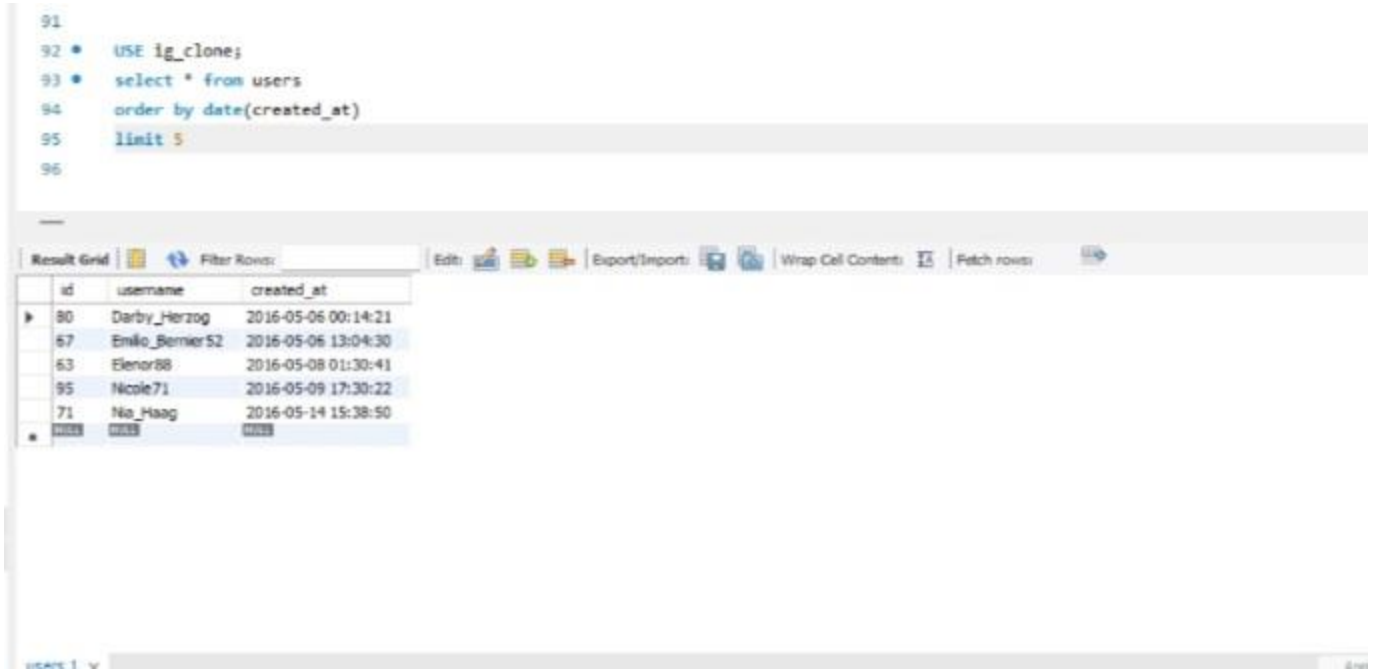
I utilized SQL (Ver 8.0.34), which I downloaded from the document's URL, and then I downloaded SQL WORKBENCH (Ver 8.0.34), which offers a visual console for managing MySQL systems and improving database visibility.

INSIGHTS

A. Marketing

1. **Rewarding the Most Consistent Users** : Individuals that have used the platform the longest.

```
USE ig_clone;
select * from users
order by date(created_at)
limit 5
```



2. Inactive User Engagement to reactivate : By sending them promotional emails to upload their initial image.

```
select users.username, users.id
from users
where not exists (select* from photos where users.id = photos.user_id)
order by username
```

```
97
98 •  select users.username, users.id
99    from users
100   where not exists (select* from photos where users.id = photos.user_id)
101   order by username
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

username	id
Aniya_Hackett	5
Bartholome.Bernhard	83
Bethany20	91
Darby_Herzog	80
David.Osinski47	45
Duane60	54
Esmeralda.Mraz57	90
Esther.Zulauf61	81
Franco_Keebler64	68
Hulda.Macejkovic	74
Jadyn81	14
Janelle.Nikolaus81	76
Jessyca_West	89
Julien_Schmidt	57
Kassandra_Homenick	7

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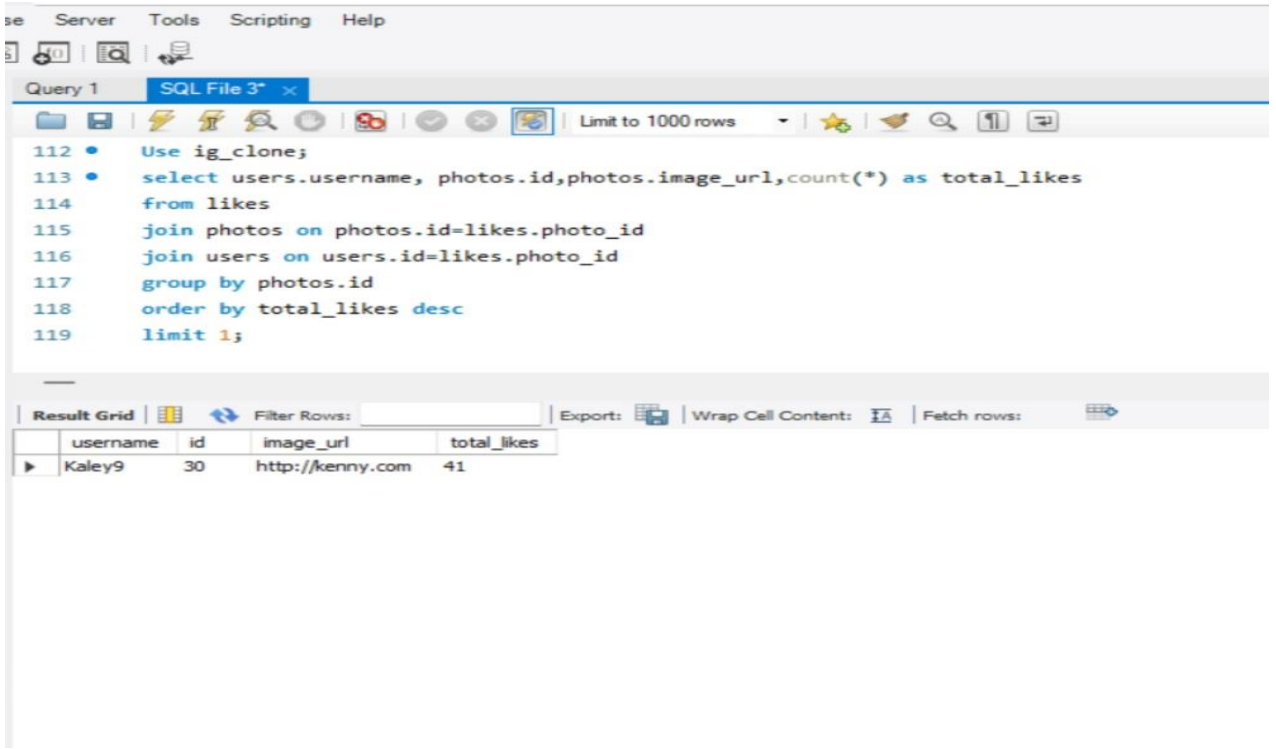
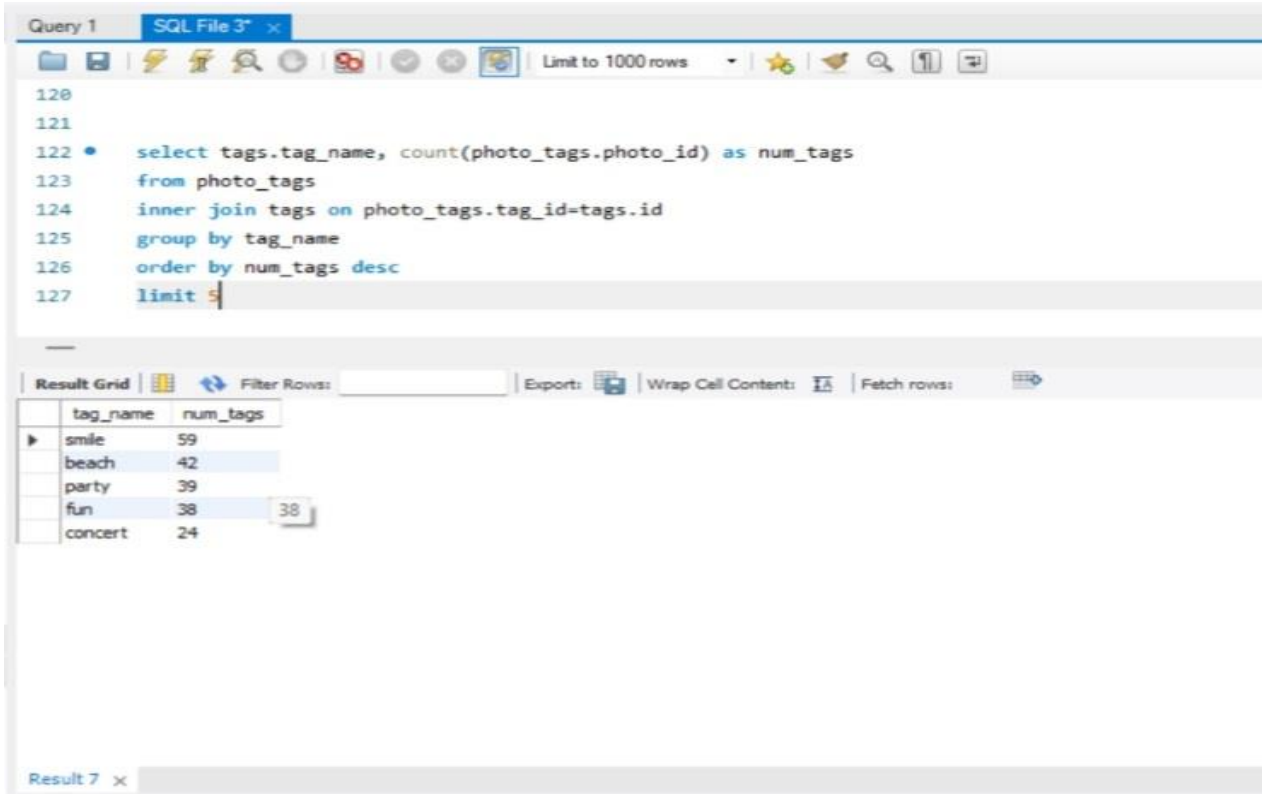
3. Declaring the Contest Winner : The participant who receives the most likes on a single photo wins the contest that the team has set up.

```
Use ig_clone;
select users.username, photos.id,photos.image_url,count(*) as total_likes
from likes
join photos on photos.id=likes.photo_id
join users on users.id=likes.photo_id
group by photos.id
order by total_likes desc
limit 1;
```



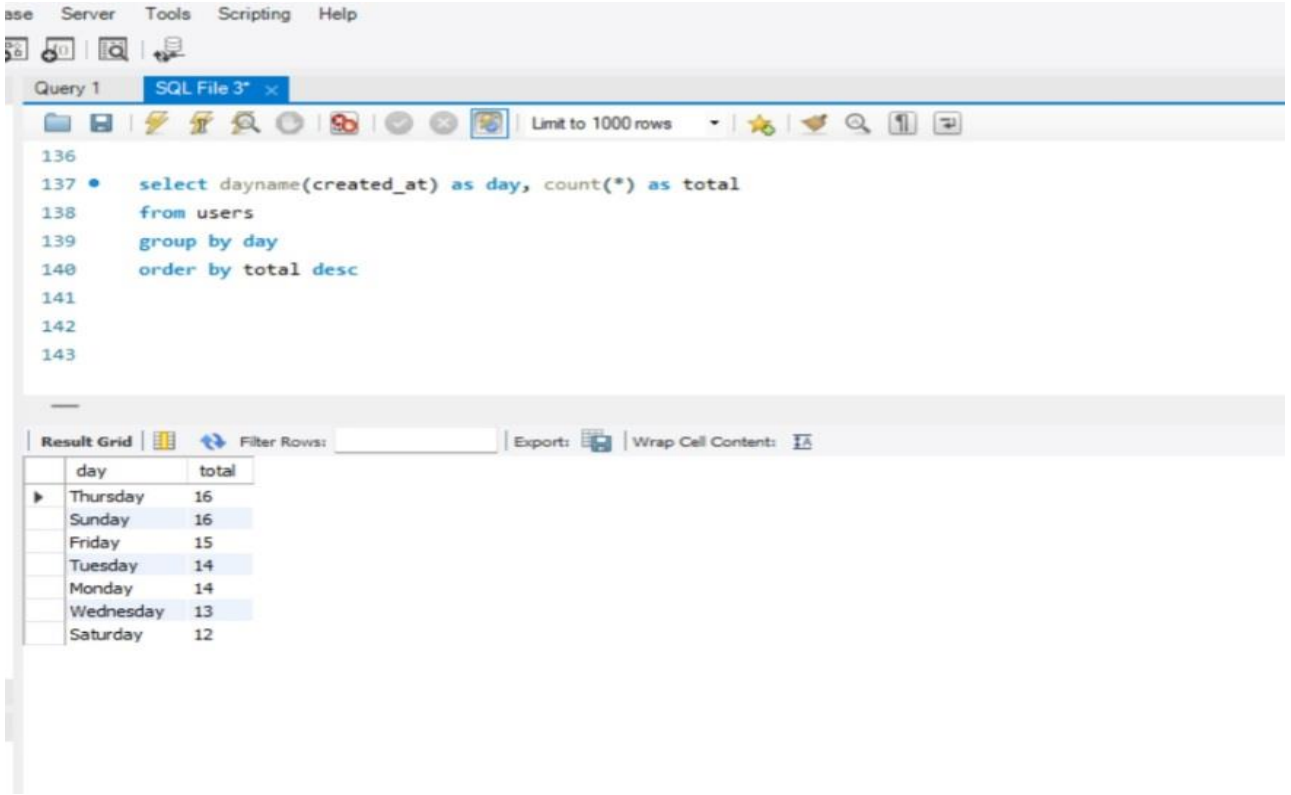
4. Hashtag Researching : A partner brand wants to know the most popular hashtags to use in their posts to reach the most people.

```
select tags.tag_name,
count(photo_tags.photo_id) as num_tags
from photo_tags
inner join tags on photo_tags.tag_id=tags.id
group by tag_name
order by num_tags desc
limit 5
```



5. Launch Ad Campaign : The team wants to know the best day of the week to launch ads.

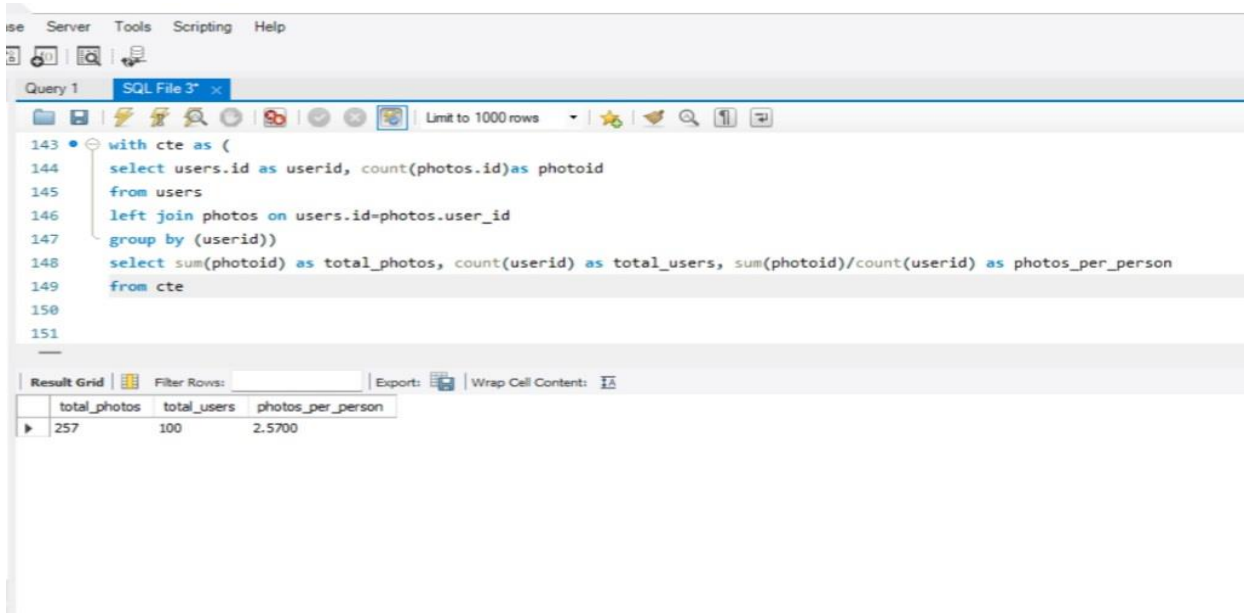
```
select dayname(created_at) as day, count(*) as total
from users
group by day
order by total desc
```



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.

```
with cte as (
select users.id as userid, count(photos.id)as photoid
from users
left join photos on users.id=photos.user_id
group by (userid))
select sum(photoid) as total_photos, count(userid) as total_users, sum(photoid)/count(userid) as photos_per_person
from cte
```



2. Bots & Fake Accounts: Investors want to know if the platform is crowded with fake and dummy accounts.

```
select id, username
from users
where id in (select user_id
from likes
group by user_id
having count(user_id) = (select count(id)
from photos));
```

```
172
173 •  select id,
174    username
175    from users
176    where id in (select user_id
177    from likes
178    group by user_id
179    having count(user_id) = (select count(id)
180    from photos));
181
182
183
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	username
5	Aniya_Hackett
14	Jadyn81
21	Rocio33
24	Maxwell.Halvorson
36	Ollie_Ledner37
41	Mckenna17
54	Duane60
57	Julien_Schmidt
66	Mike.Auer39
71	Nia_Haag
75	Leslie67

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RESULT

Working on this project has given me a foundational understanding of SQL queries and my query workbench. This project helped me understand the theory behind how queries are written and run, hinter a question. It has aided me by establishing the groundwork for my journey of learning SQL.