Instagram User Analytics

SQL Fundamental

Project Description;

This Project is about Instagram User Analytics so we can see this project is an advantageous way to understand SQL. In this project, we can do a lot of things as we found how many users, photos, tags etc. we can run their SQL code. and take a good experience for helping in the future. we can handle this project very understandable way and take this opportunity for a good future project we can do. In this project mainly we can find the most loyal users, inactive users, contest winners, hashtags, AD Campaign etc.

Approach;

Firstly, we can understand the whole project concept what, when, and where can do this project work. second, we can understand the project question what is the concept of this question. we can execute this project in our way. we can run SQL commands and see the result and sometimes errors and understand what the error occurred. find the way of solution to solve the error.

Tech-Stack Used;

MY SQL Workbench 8.0

Insights;

While making the project we gained lots of knowledge and insight about SQL. SQL is a domain-specific language we can create databases, tables, etc. and run program-related commands. I understand the project data of Instagram users and found the most loyal users, inactive users, contest winners etc. we can run different SQL commands and sometimes find accurate results and sometimes errors. we can tackle the error. we can watch Ishan Sir’s Videos They Help me Lot And Also Watch YouTube videos. Google to solve the error.

Result;

While making the project helped me to understand real-time SQL Commands. It helped me a lot first understand the database then understand the questions and the result we can find to run SQL Commands.

A) Marketing:

Task1: - Find the 5 oldest users of the Instagram from the database provided

Query: -

```
select id,
username, created_at
from ig_clone.users
order by
created_at
limit 5;
```

Output: -

id	username	created_at
80	Darby_Herzog	2016-05-06 00:14:21
67	Emilio_Bernier52	2016-05-06 13:04:30
63	Elenor88	2016-05-08 01:30:41
95	Nicole71	2016-05-09 17:30:22
38	Jordyn.Jacobson2	2016-05-14 07:56:26

Task2: - Find the users who have never posted a single photo on Instagram

Query: -

```
select username from ig_clone.users
where id
not in
(select user_id from ig_clone.photos)
```

Output: -

username			
Aniya_Hackett	Mckenna17	Nia_Haag	Esmeralda.Mraz57
Kasandra_Homenick	David.Osinski47	Hulda.Macejkovic	Bethany20
Jaclyn81	Morgan.Kassulke	Leslie67	
Rocio33	Linnea59	Janelle.Nikolaus81	
Maxwell.Halvorson	Duane60	Darby_Herzog	
Tierra.Trantow	Julien_Schmidt	Esther.Zulauf61	
Pearl7	Mike.Auer39	Bartholome.Bernhard	
Ollie_Ledner37	Franco_Keebler64	Jessyca_West	

Task3: - Identify the winner of the contest and provide their details to the team

Query: -

```
with base as ( select likes.Photo_id ,
 users.username ,
 count(likes.User_id) as like_user from ig_clone.likes likes
inner join
 ig_clone.photos photos on likes.photo_id = photos.id
inner join
 ig_clone.users users on photos.user_id = users.id group by likes.Photo_ID ,
 users.username order by Like_user desc limit 1 ) select username from base;
```

Output: -

username
Zack_Kemmer93

Task4: - Identify and suggest the top 5 most commonly used hashtags on the platform

Query: -

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

Output: -

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

Task5: - What day of the week do most users register on? Provide insights on when to schedule an ad campaign

Query: -

```
select id, username, created_at,
dayname(created_at) as week_day,
count(*) as total_count
from ig_clone.users
group by
week_day
order by
total_count desc
```

Output: -

id	username	created_at	week_day	total_count
1	Kenton_Kirlin	2017-02-16 18:22:11	Thursday	16
2	Andre_Purdy85	2017-04-02 17:11:21	Sunday	16
9	Gus93	2016-06-24 19:36:31	Friday	15
3	Harley_Lind18	2017-02-21 11:12:33	Tuesday	14
7	Kasandra_Homenick	2016-12-12 06:50:08	Monday	14
5	Aniya_Hackett	2016-12-07 01:04:39	Wednesday	13
4	Arely_Bogan63	2016-08-13 01:28:43	Saturday	12

B) Investor Metrics:

User Engagement: - Provide how many times does average user posts on Instagram. Also, provide the total number of photos on Instagram/total number of users

Query: -

```
WITH CTE AS ( SELECT u.id AS userid, COUNT(p.id)
AS photoid FROM ig_clone.users u LEFT JOIN
ig_clone.photos p ON u.id = p.user_id GROUP BY u.id )
SELECT SUM(photoid) AS total_photos,
COUNT(userid) AS total_users, SUM(photoid)/COUNT(userid) AS photos_per_user FROM CTE
```

Output: -

total_photos	total_users	photos_per_user
257	100	2.5700

Bots & Fake Accounts: Provide data on users (bots) who have liked every single photo on the site (since any normal user would not be able to do this).

Query: -

```
1  WITH photo_count AS ( SELECT user_id, COUNT(photo_id) AS num_like
2  FROM ig_clone.likes GROUP BY user_id ORDER BY num_like DESC )
3  SELECT * FROM photo_count WHERE num_like =
4  (SELECT count(*) FROM ig_clone.photos)
```

Output: -

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