Instagram User Analytics

1. **Project Description:-** The Instagram User Analytics project aims to analyze a simulated Instagram dataset using SQL fundamentals. The dataset comprises user profiles, posts, likes, and comments. By employing SQL queries, the project seeks to extract meaningful insights into user behavior, engagement patterns, and content popularity on the platform**.**
2. **Approach:**

A. Database creation**:-** Created and inserted the values in the database using the DDL & DML SQL queries provided by the product manager (as per project) in the MySQL database using MySQL workbench.

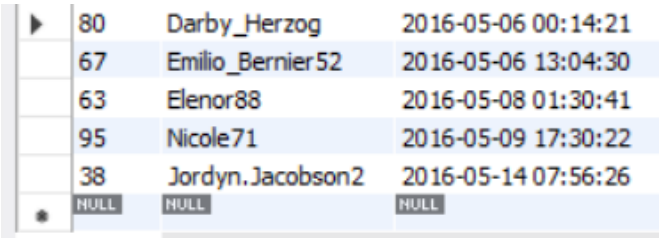
3. **Tech-Stack Used:-** Used MySQL Community Server — GPL Version 8.0.32 and Connector Version 8.0.32 for creating my project as MySQL Community Server — GPL is a free and open-source relational database management system that uses SQL.
4. **Project Insights:**

A) Marketing Analysis:

The marketing team wants to launch some campaigns, and they need your help with the following.

1. **Loyal User Reward:-** Identify the five oldest users on Instagram from the provided database.

CONCLUSION: Users 80, 67, 63, 95, 38 are the 5 oldest users on the platform.



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
NULL	NULL	NULL

Code: SELECT * FROM

users ORDER BY

created_at ASC LIMIT 5;

2. **Inactive User Engagement**: Identify users who have never posted a single photo on Instagram.
   Conclusion: These users were inactive after their first post.

username
Aniya_Hackett
Kasandra_Homenick
Jadyn81
Rocio33
Maxwell.Halvorson
Tierra.Trantow
Pearl7
Ollie_Ledner37
Mckenna17
David.Osinski47
Morgan.Kassulke
Linnea59
Duane60
Julien_Schmidt
Mike.Auer39
Franco_Keebler64
Nia_Haag
Hulda.Macejkovic
Leslie67
Janelle.Nikolaus81
Darby_Herzog
Esther.Zulauf61
Bartholome.Bernhard

Code: select username from

```
users left join photos
on users.id = photos.user_id
where photos.id is NULL;
```

Counting Values: select count(username) from

users left join photos

on users.id = photos.user_id

where photos.id is NULL;

Output:

count(username)
26

3. Contest Winner Declaration: Determine the winner of the contest and provide their details to the team.

Conclusion: He has the most likes in his one posts.

	username	id	image_url	total
▶	Zack_Kemmer93	145	https://jarret.name	48

Code: select username,photos.id,photos.image_url,
count(*) 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. **Hashtag Research:** Identify and suggest the top five most commonly used hashtags on the platform.

Conclusion: These are some tranding hastags which a partner brand can use.

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

Code: 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. **Ad Campaign Launch:** Determine the day of the week when most users register on Instagram. Provide insights on when to schedule an ad campaign.

Conclusion: These day would be best for AD Campaign.

	day	total
▶	Thursday	16
	Sunday	16

Code: select dayname(created_at)

as day,count(*) as total from

users group by day order by total DESC limit 2;

B) Investor Metrics:

Our investors want to know if Instagram is performing well and is not becoming redundant like Facebook, they want to assess the app on the following grounds.

1. **User Engagement:** 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.

   Conclusion: A users average post in more than 2.

	avg
▶	2.5700

   Code: select (select count(*) from
   photos)/(select count(*) from users) as avg;

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

   Conclusion: These are some user who can be boat and fake account.

	username	num_likes
▶	Aniya_Hackett	257
	Jaclyn81	257
	Rocio33	257
	Maxwell.Halvorson	257
	Ollie_Ledner37	257
	Mckenna17	257
	Duane60	257
	Julien_Schmidt	257
	Mike.Auer39	257
	Nia_Haag	257
	Leslie67	257
	Janelle.Nikolaus81	257
	Bethany20	257

   Code: select username,count(*) as num_likes

   from users inner join likes on users.id =

   likes.user_id group by likes.user_id having

   num_likes = (select count(*) from photos) ;