Project 2 (Instagram User Analytics)

A. Project description: - Finding business insights from the database that can be used by various across business to launch a new market campaign, feather to build an app and track the success of the app by measuring user engagement on the append improve the experience of the application.

B. Approach: -

1. **Database Creation –** Created and inserted the value in the database using the various quarries SQL, DDL, DML provided by the managers. In the My SQL database using SQL workbench.

2. **Extract insights –** when creating a database required insights are being generated from the database table after running SQL quaries in My SQL bench.

C. **Tech- Stack Used –** In this project used a My SQL community server Version 8.0.30 and connector version C++ 8.0.30 for creating my project as My SQL community server, It is a free and open source relational database management system that uses SQL.

Project Insights A) Marketing

1. **Rewarding Most Loyal User :-** people who have been using this platform for the longest time.

The 5 oldest user for Instagram from the database are:-

	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
*	NULL	NULL	NULL

Code – SELECT id, username,

Created_at from users

order by created_at limit 5;

2. **Remind inactive users to start posting: -** by sending them promotional emails to pst their 1st photo.

The user who has never posted a single photo.

username

Aniya_Hackett

Kasandra_Homenick

Jaclyn81

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

Jessyca_West

Esmeralda.Mraz57

Bethany20

CODE - select username

from users

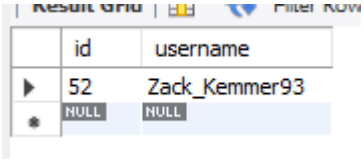
left join photos

on users.id=photos.user_id

where photos.id IS null

3. **Declaring contest winner: -** The term started contest and the user who gets to most likes on a single photo will win the contest now they wish to declare the winner.

Details of the winner of the contest are: -



id	username
52	Zack_Kemmer93
NULL	NULL

Code - select id, username FROM users

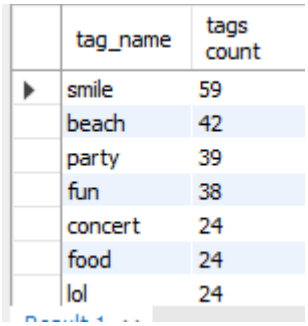
WHERE id = (select user_id from photos where id = (select photo_id

from likes group by photo_id

order by count(photo_id) desc limit 1));

4. **Hashtag Researching: -** A partner brand wants to know, which hashtags to use in the post to reach the most people on the platform.

The top most commonly used hashtags on the platform are: -



tag_name	tags count
smile	59
beach	42
party	39
fun	38
concert	24
food	24
lol	24

Code - select t.tag_name,

count(t.tag_name) AS "tags count"

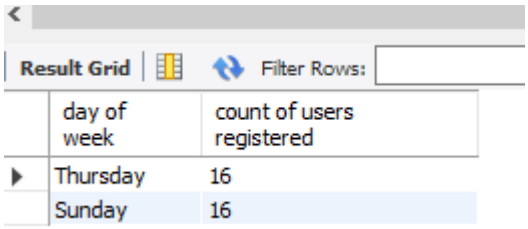
from tags t

inner join photo_tags ph

```
ON t.id = ph.tag_id
group by t.tag_name
order by count(t.tag_name) desc limit 7;
```

5. **Launch AD campaign: -** The team wants to know which day would be the best day to launch ads.

Day of the week do most users register on:-



Result Grid | Filter Rows:

day of week	count of users registered
Thursday	16
Sunday	16

```
Code  -  select dayname(created_at)          "day of week",
count(dayname(created_at))          "count of users registered"
from users
group by dayname(created_at)
order by count(dayname(created_at)) desc
limit 2;
```

INSIGHTS: INVESTOR METRICS

1. **User engagement: -** Are users still as active and post on Instagram or they are making fewer posts.

Average user posts and ratio of total posts to total users in Instagram are : -

Average_posts_per_user = 3.4730

Ratio_of_Total_posts_to_Total_Users = 2.5700

Code - select (select count (id)

from photos) / (select count(distinct user_id)

from photos) AS Average_posts_per_user,

(select count(id)

from photos) / (select count(id)

from users) AS Ratio_of_Total_posts_to_Total_Users;

2. **Bots and fake accounts : The investors want to know if the platform is crowded with fake and dummy accounts**

id, username

'5', 'Aniya_Hackett'

'14', 'Jaclyn81'

'21', 'Rocio33'

'24', 'Maxwell.Halvorson'

'36', 'Ollie_Ledner37'

'41', 'Mckenna17'

'54', 'Duane60'

'57', 'Julien_Schmidt'

'66', 'Mike.Auer39'

'71', 'Nia_Haag'

'75', 'Leslie67'

'76', 'Janelle.Nikolaus81'

'91', 'Bethany20'

CODE - 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));

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CONCLUSION

- **Instagram company can remove fake accounts and bots to increase the customer experience.**
- **Through user engagement can be the useful growth for the company**
- **Marketing department can reward the most loyal customers and sent promotional email to one and one interaction with users.**