INSTAGRAM USER ANALYTICS

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Introduction

This is a project about Instagram User analysis in which we will be helping Instagram employees to derive business insights for marketing, product & development by providing the data to them using SQL(Structured Query language), by this thing we can get all answers that the employee asked us to upgrade the Instagram services.

Agenda

Marketing: The marketing team wants to launch some campaigns and needs your help with the following.

- **Rewarding Most Loyal Users:-** Find the 5 oldest users of Instagram from the database provided.
- **Remind Inactive Users to Start Posting:-** Find the users who have never posted a single photo on Instagram.
- **Declaring Contest Winner:-** Identify the winner of the contest and provide their details to the team.
- **Hashtag Researching:-** Identify and suggest the platform's top 5 most commonly used hashtags.
- **Launch AD Campaign:-** What day of the week do most users register on? Provide insights on when to schedule an ad campaign.

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.

- **User Engagement**: Are users still as active and post on Instagram or they are making fewer posts
  Your Task: Provide how many times does average user posts on Instagram. Also, provide the total number of photos on Instagram/the total number of users.
- **Bots & Fake Accounts**: The investors want to know if the platform is crowded with fake and dummy accounts
  Your Task: 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)

Approach

Firstly, I have gone through the data and then analyze the data which sheet has which type of data, afterward I try to join all the sheets then after that I approach the question in My SQL then extract the insightful data from the raw data and answer the question as asked.

Techstack: MySQL, PowerPoint

Marketing

The marketing team wants to launch some campaigns and needs your help with the following.

Rewarding Most Loyal Users:-

Find the 5 oldest users of Instagram from the database provided.


```sql
select top 5 * from users
order by created_at asc;
```

username	created_at
Darby_Herzog	2016-05-06 00:14:2
Emilio_Bernier52	2016-05-06 13:04:3
Elenor88	2016-05-08 01:30:4
Nicole71	2016-05-09 17:30:2
Jordyn.Jacobson2	2016-05-14 07:56:2

Remind Inactive Users to Start Posting:-

Find the users who have never posted a single photo on Instagram.

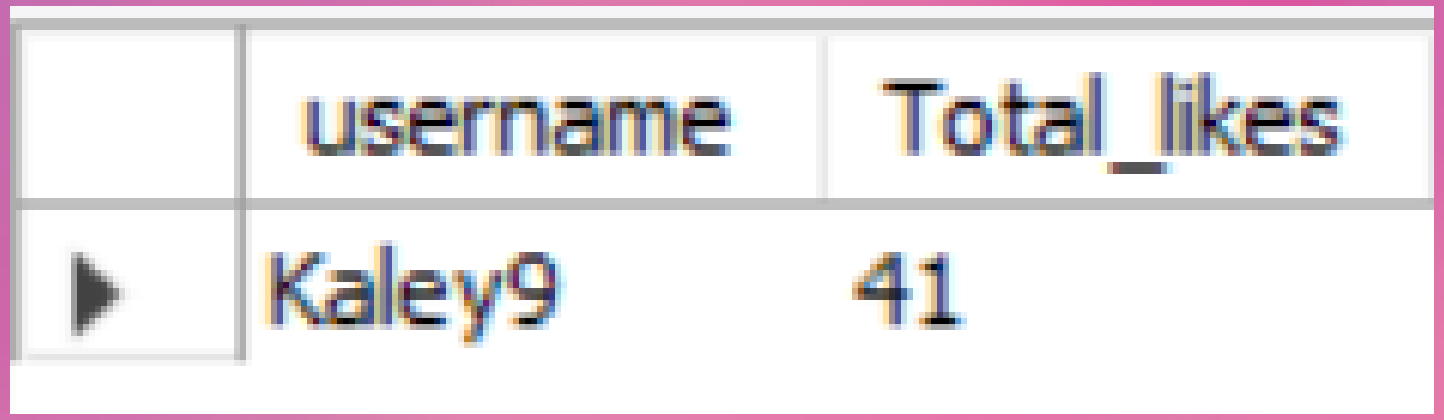
```
select z.* from users z

LEFT JOIN photos y ON z.id =
y.user_id

WHERE y.user_id is null

order by z.username;
```

	id	username	created_at
2	83	Bartholome.Bernhard	2016-11-06 02:31:23.0000000
3	91	Bethany20	2016-06-03 23:31:53.0000000
4	80	Darby_Herzog	2016-05-06 00:14:21.0000000
5	45	David.Osinski47	2017-02-05 21:23:37.0000000
6	54	Duane60	2016-12-21 04:43:38.0000000
7	90	Esmeralda.Mraz57	2017-03-03 11:52:27.0000000
8	81	Esther.Zulauf61	2017-01-14 17:02:34.0000000
9	68	Franco_Keebler64	2016-11-13 20:09:27.0000000
10	74	Hulda.Macejkovic	2017-01-25 17:17:28.0000000
11	14	Jaclyn81	2017-02-06 23:29:16.0000000
12	76	Janelle.Nikolaus81	2016-07-21 09:26:09.0000000
13	89	Jessyca_West	2016-09-14 23:47:05.0000000
14	57	Julien_Schmidt	2017-02-02 23:12:48.0000000
15	7	Kasandra_Homenick	2016-12-12 06:50:08.0000000
16	75	Leslie67	2016-09-21 05:14:01.0000000
17	53	Linnea59	2017-02-07 07:49:34.0000000
18	24	Maxwell.Halvorson	2017-04-18 02:32:44.0000000
19	41	Mckenna17	2016-07-17 17:25:45.0000000
20	66	Mike.Auer39	2016-07-01 17:36:15.0000000
21	49	Morgan.Kassulke	2016-10-30 12:42:31.0000000
22	71	Nia_Haag	2016-05-14 15:38:50.0000000
23	36	Ollie_Ledner37	2016-08-04 15:42:20.0000000
24	34	Pearl7	2016-07-08 21:42:01.0000000
25	21	Rocio33	2017-01-23 11:51:15.0000000
26	25	Tierra.Trantow	2016-10-03 12:49:21.0000000

Declaring Contest Winner:-

Identify the winner of the contest and provide their details to the team.

```
Select users.username,count(*) as Total_likes from
likesjoin photos on photos.id = likes.photo_idjoin users
on users.id = likes.photo_idgroup by photos.idorder by
Total_likes desclimit 1;
```



	username	Total_likes
▶	Kaley9	41

Hashtag Researching:-

Identify and suggest the platform's top 5 most commonly used hashtags.

```
Select tags.tag_name, count(pt.photo_id) as
Tagged_Photo from photo_tags ptinner join tags on
pt.tag_id = tags.idgroup by tags.tag_nameorder by
Tagged_Photo desclimit 5;
```

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

Launch AD Campaign:-

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

```
SELECT DAYNAME(created_at) AS Day, COUNT(*) AS
total FROM users GROUP BY Day ORDER BY total
DESC limit 2;
```

Day	total
Thursday	16
Sunday	16

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

User Engagement:

Are users still as active and post on Instagram or they are making fewer posts
Your Task: Provide how many times does average user posts on Instagram. Also, provide the total number of photos on Instagram/the total number of users.

```
with ste as ( SELECT z.id AS userid, COUNT(y.id)AS photoid FROM users z LEFT
JOINphotos y on z.id = y.user_id GROUP BY z.id )SELECT SUM(photoid) AS
Total_photos,COUNT(userid) AS Total_Users, SUM(photoid)/COUNT(userid)
ASPhotos_User from ste;
```

	Total_photos	Total_Users	Photos_User
▶	257	100	2.5700

Bots & Fake Accounts:

The investors want to know if the platform is crowded with fake and dummy accounts
Your Task: 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)

```
Select
users.username,likes.user_id,
Count(*) as Total_Like_By_User
Fromusers,likesWhere users.id =
likes.user_idGroup by
user_idOrder by
Total_Like_By_User Desc;
```

Result Grid | Filter Rows:

username	user_id	Total_Like_By_User
Rocio33	21	257
Nia_Haag	71	257
Aniya_Hackett	5	257
Mike.Auer39	66	257
Mckenna17	41	257
Jadyn81	14	257
Julien_Schmidt	57	257
Maxwell.Halvorson	24	257
Janelle.Nikolaus81	76	257
Leslie67	75	257
Duane60	54	257
Bethany20	91	257
Ollie_Ledner37	36	257

Result 9

The way Instagram is to get started is to quit talking and begin sharing.

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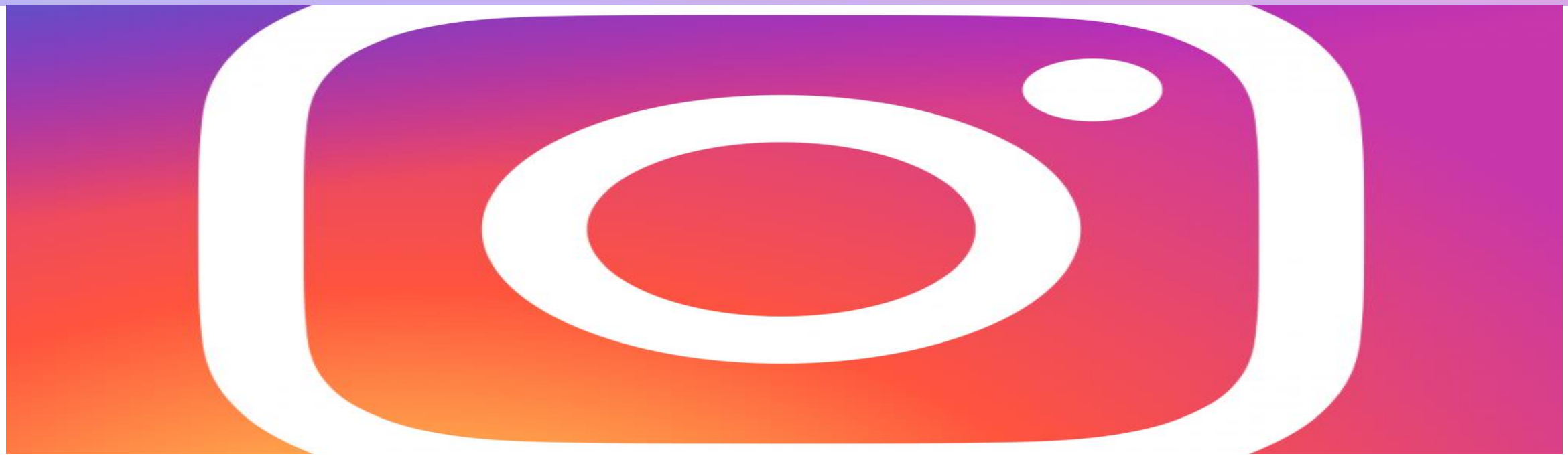
Result

As I learned from this project How to import the word data to my SQL before that I have worked with CSV files so it is difficult to recognize how to import it after that I copy the query and then paste it to MySQL and it worked and this project is beyond the level how to approach the question.



Thank you

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