INSTAGRAM USER ANALYTICS

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AGENDA

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- Tech Used
- Insights
- Result

PROJECT DESCRIPTION

Finding business insights by marketing and investor metrics which involves analyzing user interactions and engagement with the Instagram app to provide valuable insights that can help the business grow.

Approach

Database creation : Using SQL we create the table and inserted value in the database provided as a reference using SQL queries.

Extraction of insights : After creation of the database required insights are generted from MYSQL workbench .

Tech-version Used

Used MySQL Community Server - GPL Version 8.0.40.0 msi for this project .

INSIGHTS :MARKETING

- Loyal User Reward: The marketing team wants to reward the most loyal users, i.e., those who have been using the platform for the longest time.

5 oldest users of the Instagram from the database are :

```
92
93      SELECT * FROM users ORDER BY created_at ASC
94      LIMIT 5;
95
96
```

Result Grid | Filter Rows: | Edit: | Export/Import:

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

INSIGHTS

Inactive User Engagement: The team wants to encourage inactive users to start posting by sending them promotional emails.
Your Task: Identify users who have never posted a single photo on Instagram.

```
select users.id,username, count(photos.user_id) AS'no._of_posts'from users
LEFT JOIN photos
ON users.id=photos.user_id
group by users.id having count(photos.user_id)= 0;
```

The users who have never posted a single photo on Instagram

id	username	no._of_posts
5	Aniya_Hackett	0
7	Kasandra_Homenick	0
14	Jadyn81	0
21	Rocio33	0
24	Maxwell.Halvorson	0
25	Tierra.Trantow	0
34	Pearl7	0
36	Ollie_Ledner37	0
41	Mckenna17	0
45	David.Osinski47	0
49	Morgan.Kassulke	0
53	Linnea59	0
54	Duane60	0
57	Julien_Schmidt	0
66	Mike.Auer39	0
68	Franco_Keebler64	0
71	Nia_Haag	0
74	Hulda.Macejkovic	0
75	Leslie67	0
76	Janelle.Nikolaus81	0
80	Darby_Herzog	0
81	Esther.Zulauf61	0
83	Bartholome.Bernhard	0
89	Jessyca_West	0
90	Esmeralda.Mraz57	0
91	Bethany20	0

INSIGHTS

Contest Winner Declaration: The team has organized a contest where the user with the most likes on a single photo wins.
Your Task: Determine the winner of the contest and provide their details to the team.

```
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));
```

Details of the winner of the contest are :

	id	username
▶	52	Zack_Kemmer93

Hashtag Research: A partner brand wants to know the most popular hashtag to use in their posts to reach the most people.

```
select tg.tag_name,
  COUNT(tg.tag_name) as 'hastags'
  from tags tg
  INNER JOIN photo_tags p
  ON tg.id = p.tag_id
  group by tg.tag_name
  order by count(tg.tag_name)
  desc limit 5;
```

The top 5 most commonly used hashtags on the platform are

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

INSIGHTS

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

```
select DAYNAME(created_at) as 'week day',
COUNT(dayname(created_at)) as 'registered users'
from users
GROUP BY dayname(created_at)
order BY COUNT(DAYNAME(created_at))
DESC LIMIT 2;
```

Day of the week do most users register on :

week day	registered users
Thursday	16
Sunday	16

INSIGHTS

Data of users (bots) who have liked every single photo on the site are:

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));
```

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
76	Janelle.Nikolaus81
91	Bethany20

Results

- Learnt fundamentals of data analysis through SQL queries which is used to extract meaningful insights from the data.
- Conclusions from above analysis :
  - Marketing team needs to give reward to the most loyal customers,
  - Sending some promotional emails to their inactive users,
  - Using popular hashtags and finding most effective day for brand promotions.
  - User engagement can be very useful for growth success metric for the company
  - Company can remove the bots and fake accounts from the platform to enhance user experience

THANK YOU