

Instagram User Analytics

Description:

This project aims to analysing user interactions and engagement with the use of raw data for Instagram app to provide valuable insights that can help the business grow.

Tech Stack used:

This project was executed using MySQL Workbench v8.0.36.0 which helps to analyse the raw data using queries and understandable interface.

Project Insights:

A) Marketing Analysis:

1. Loyal user Reward:

The users who have been using the platform for very long time.

Code:

```
select * from users  
  
order by created_at  
  
limit 5;
```

Output:

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

Conclusion:

Five oldest users 9n Instagram from the provided databases.

2. Inactive User Engagement:

The inactive users of Instagram for very long time.

Code:

```
select username
from users
left join photos
on users.id=photos.user_id
where photos.id is null;
```

Output:

username

Tierra.Trantow
Rocio33
Pearl7
Ollie_Ledner37

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

Conclusion:

All inactive users of Instagram.

3. Contest Winner Declaration:

The users with the most likes on a single photo wins the contest.

Code:

```
select username, photos.id, image_url, count(likes.user_id)
      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;
```

Output:

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

Conclusion:

The details of the user who wins the contest with most likes on a single photo.

4. Hashtag Research:

The most popular hashtag used in the platform to use in posts.

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;
```

Output:

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

Conclusion:

Top five hashtags used in photos which are popular.

5. Ad Campaign Launch:

The best day of the week to launch an Ad.

Code:

```
select dayname(created_at) as day, count(*) as total  
from users  
group by day  
order by total desc  
limit 2;
```

Output:

	day	total
►	Thursday	16
	Sunday	16

Conclusion:

Two best days of the week to launch an Ad campaign.

B) Investor Metrics:

1. User Engagement:

To know if users are still active and posting on Instagram.

Code:

```
select * from photos, users;

with base as

(

select u.id as userid, count(p.id) as photoid from users u

left join photos p on p.user_id = u.id

group by u.id

)

select sum(photoid) as totalphotos, count(userid) as

total_users, sum(photoid) / count(userid) as photoperuser

from base;
```

Output:

	totalphotos	total_users	photo per user
▶	257	100	2.5700

Conclusion:

The total number of users are

count(*)
▶ 100

 and total number of photos are

count(*)
▶ 257

.

The total number of users who are active and posting on Instagram.

2. Bots and Fake Accounts:

To sort the bots and fake accounts in the platform.

Code:

```
select * from users, likes;

with base as

(
    select u.username, count(photo_id) as Total_Likes from likes
inner      join users u on u.id=user_id
    group by u.username
)

select username, Total_Likes
from base
```

where Total_Likes = (select count(*) from photos)
order by username;

Output:

	username	Total_Likes
►	Aniya_Hackett	257
	Bethany20	257
	Duane60	257
	Jadlyn81	257
	Janelle.Nikolaus81	257
	Julien_Schmidt	257
	Leslie67	257
	Maxwell.Halvorson	257
	Mckenna17	257
	Mike.Auer39	257
	Nia_Haag	257
	Ollie_Ledner37	257
	Rocio33	257

Conclusion:

The total number of bots and fake accounts according to the likes given in photos.