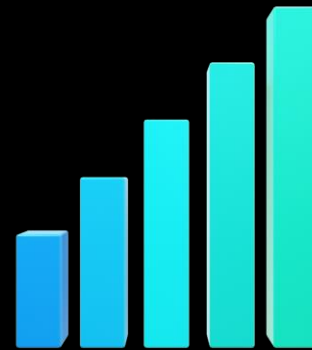
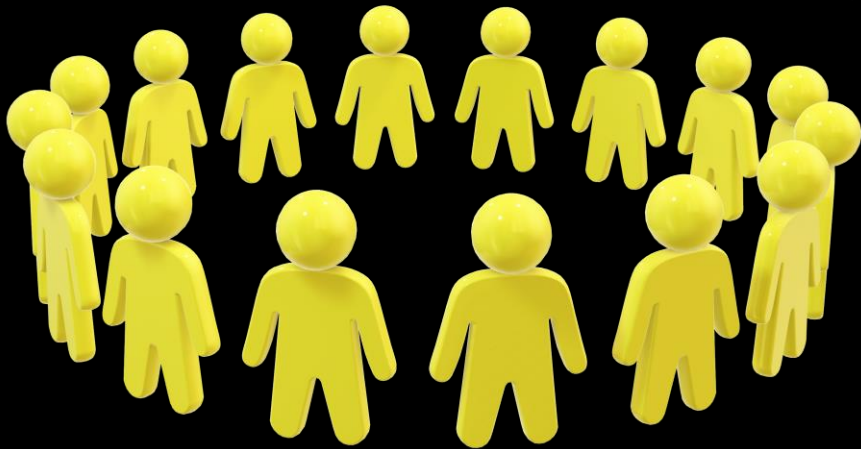


INSTAGRAM USER ANALYTICS

- By Pilli Bhavana



PROJECT DESCRIPTION

User analysis is the process of tracking how users interact with digital products to derive business insights, which can be used to launch campaigns, build features, track success, and improve the experience. Product manager requests insights from product team(You).

A) Marketing: The marketing team wants to launch some campaigns, and they need your help with the following

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

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:** Provide how many times does average user posts on Instagram. Also, provide the total number of photos on Instagram/total number of users
- 2. Bots & Fake Accounts:** 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

Using MySQL, I was able to write the query and obtain the necessary data for marketing and investment metrics.

I imported the data into MySQL and then ran several queries to acquire the exact response I required.

I worked in PowerPoint after completing the MySQL query portion of the report submission.

I downloaded the Instagram logo from Google while working on the report portion.

After writing down the information to be included on each slide in a notebook, I inserted the information to the PPT after reviewing it.

TECH- STACK USED



MYSQL WORKBENCH
(VERSION:8.0 CE): FOR
PERFORMING THE ANALYSIS



MICROSOFT POWERPOINT
(VERSION: MICROSOFT 360):
FOR CREATING THE REPORT

INSIGHTS

I experienced the challenges that a real data analyst encounters when working on projects while I was working on the data analysis part of the project.

I learned how to apply the tools I was using, such as PowerPoint and MySQL, in practical job situations as I used them.

After completing this job, I am familiar with and at ease using both tools.

I now understand how the industry operates to use data to find any answers they desire.

RESULT

MARKETING

Rewarding Most Loyal Users

Query: SELECT * FROM users
ORDER BY created_at
LIMIT 5;

id	username
80	Darby_Herzog
67	Emilio_Bernier52
63	Elenor88
95	Nicole71
38	Jordyn.Jacobson2

Remind Inactive Users to Start Posting

```
Query: SELECT
users.username,
users.id
FROM users
LEFT JOIN photos
ON users.id =
photos.user_id
WHERE photos.id is
null;
```

id	username	id	username	id	username
5	Aniya_Hackett	45	David.Osinski47	75	Leslie67
7	Kasandra_Homenick	49	Morgan.Kassulke	76	Janelle.Nikolaus81
14	Jaclyn81	53	Linnea59	80	Darby_Herzog
21	Rocio33	54	Duane60	81	Esther.Zulauf61
24	Maxwell.Halvorson	57	Julien_Schmidt	83	Bartholome.Bernhard
25	Tierra.Trantow	66	Mike.Auer39	89	Jessyca_West
34	Pearl7	68	Franco_Keebler64	90	Esmeralda.Mraz57
36	Ollie_Ledner37	71	Nia_Haag	91	Bethany20
41	Mckenna17	74	Hulda.Macejkovic		

Declaring Contest Winner

Query: SELECT users.username, photos.id,
photos.image_url, COUNT(*) AS likes

FROM photos

INNER JOIN likes

ON likes.photo_id = photos.id

INNER JOIN users

ON users.id=photos.user_id

GROUP BY photos.id

ORDER BY likes DESC

LIMIT 1;

username	id	Image_url	likes
Zack_Kemmer93	145	https://jarret.name	48

Hashtag Researching

```
SELECT tag_name, COUNT(tag_name)
AS total_hashtags
FROM tags
INNER JOIN photo_tags
ON photo_tags.tag_id=tags.id
GROUP BY tag_name
ORDER BY total_hashtags DESC
LIMIT 5;
```

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

Launch AD Campaign

```
SELECT DAYNAME(created_at) AS  
day_name, COUNT(created_at) AS  
total_registrations  
FROM users  
GROUP BY day_name  
ORDER BY total_registrations  
DESC;
```

day_name	total_registrations
Thursday	16
Sunday	16

INVESTOR METRICS



User Engagement

provide the total number of photos on Instagram/total number of users

```
SELECT COUNT(DISTINCT users.id) AS  
total_users,  
COUNT(photos.image_url) AS  
total_photos,  
COUNT(photos.image_url) /  
COUNT(DISTINCT users.id) AS  
image_urls_per_user  
FROM users  
LEFT JOIN photos  
ON users.id = photos.user_id;
```

total_users	total_photos	image_urls_per_user
100	257	2.5700

User Engagement:

Provide how many times does average user posts on Instagram

```
SELECT AVG(posts_per_user) AS  
avg_posts_per_user  
FROM (  
    SELECT COUNT(*) AS  
posts_per_user  
    FROM photos  
    GROUP BY user_id)  
AS user_posts;
```



avg_posts_per_user
3.4730

Bots & Fake Accounts

```
SELECT users.username, likes.user_id
FROM likes
INNER JOIN users
ON users.id=likes.user_id
GROUP BY user_id
HAVING COUNT(DISTINCT photo_id)
= (SELECT COUNT(*) FROM photos);
```

username	user_id	username	user_id
Aniya_Hackett	5	Julien_Schmidt	57
Jaclyn81	14	Mike.Auer39	66
Rocio33	21	Nia_Haag	71
Maxwell.Halvorson	24	Leslie67	75
Ollie_Ledner37	36	Janelle.Nikolaus81	76
Mckenna17	41		
Duane60	54	Bethany20	91

DRIVE LINK

Drive link of the csv file of MySQL query I wrote.

https://drive.google.com/file/d/1xVB0YxUcfhjsPI44qD1l58HYHiriVj_O/view?usp=share_link



THANK YOU