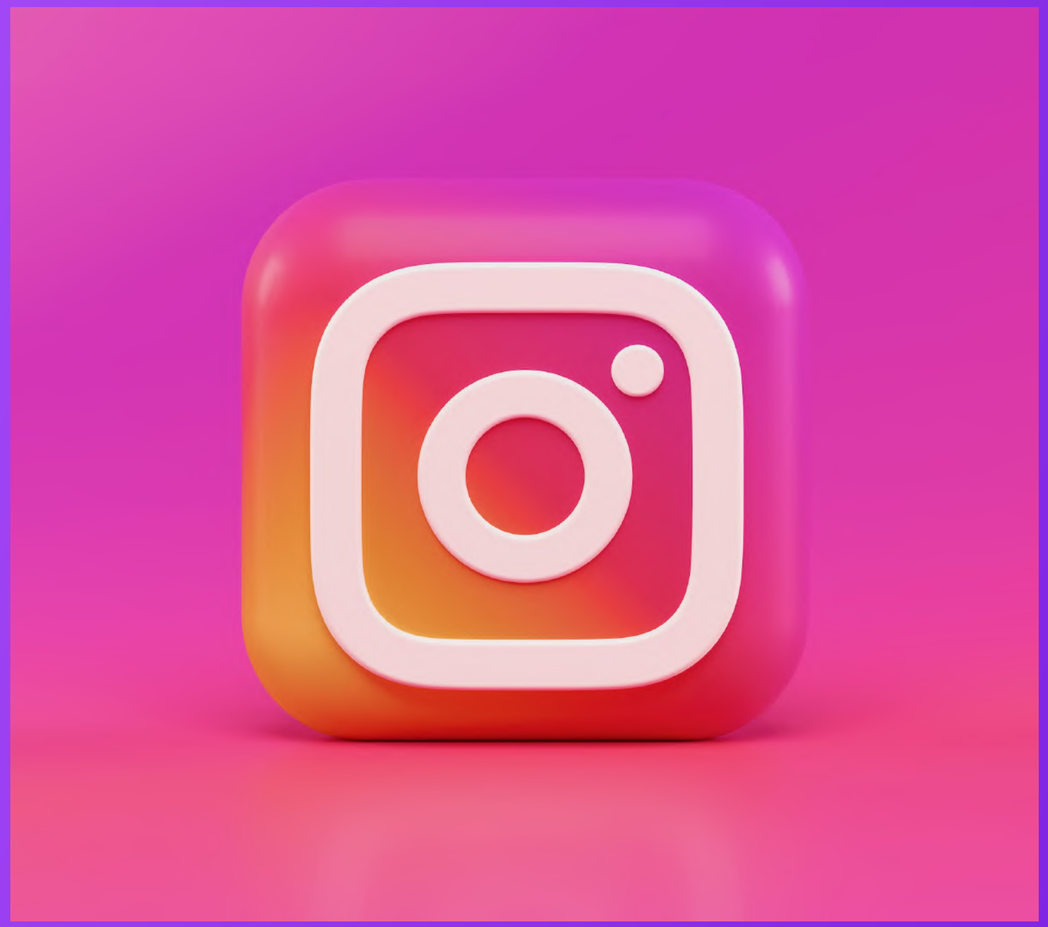
Instagram User Analytics



Overview

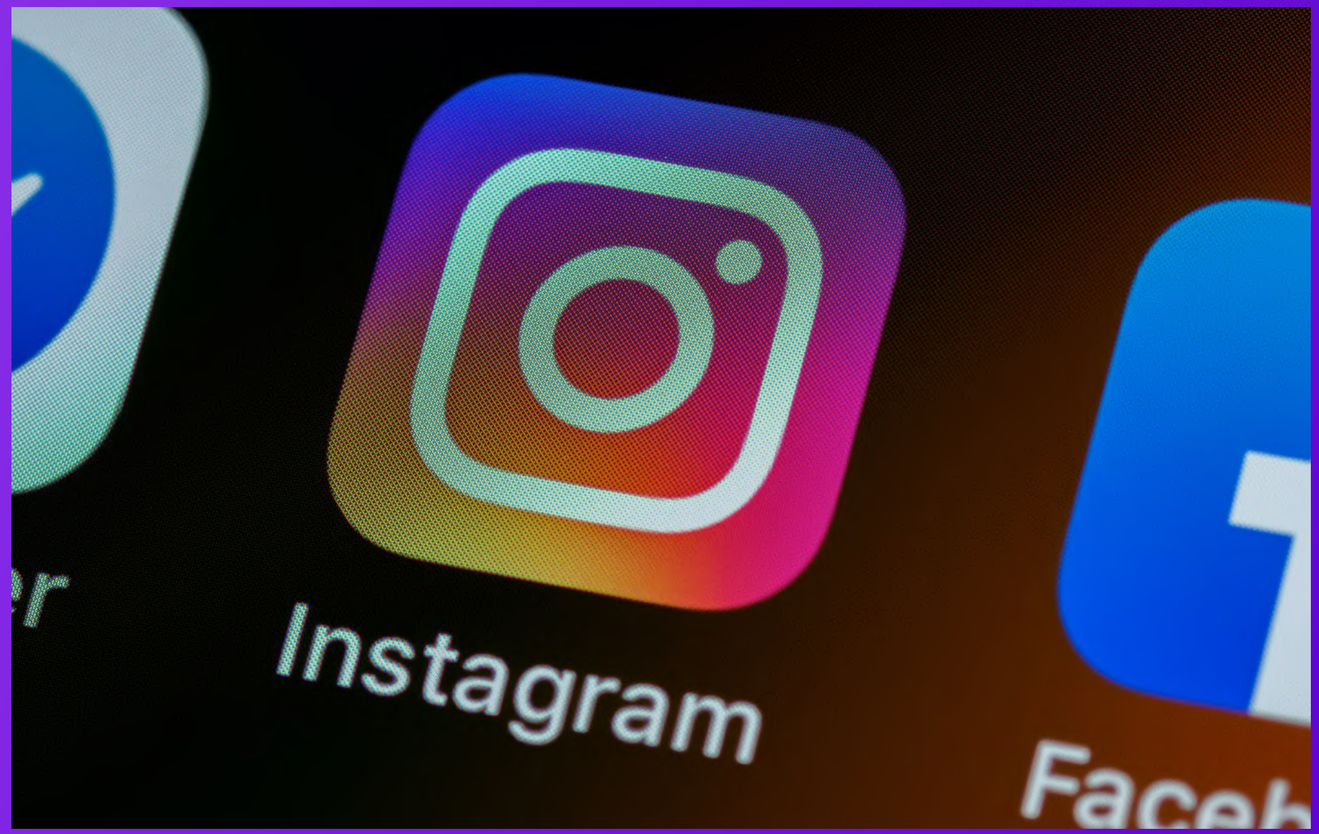
Instagram user analysis is the process by which we track how users engage and interact with our digital product (software or mobile application) in an attempt to derive business insights for marketing, product & development teams.

These insights will he teams across the business to launch a new marketing campaign, decide on features to build for an app, track the success of the app by measuring user engagement and improve the experience altogether while helping the business grow.

Marketing Metrices

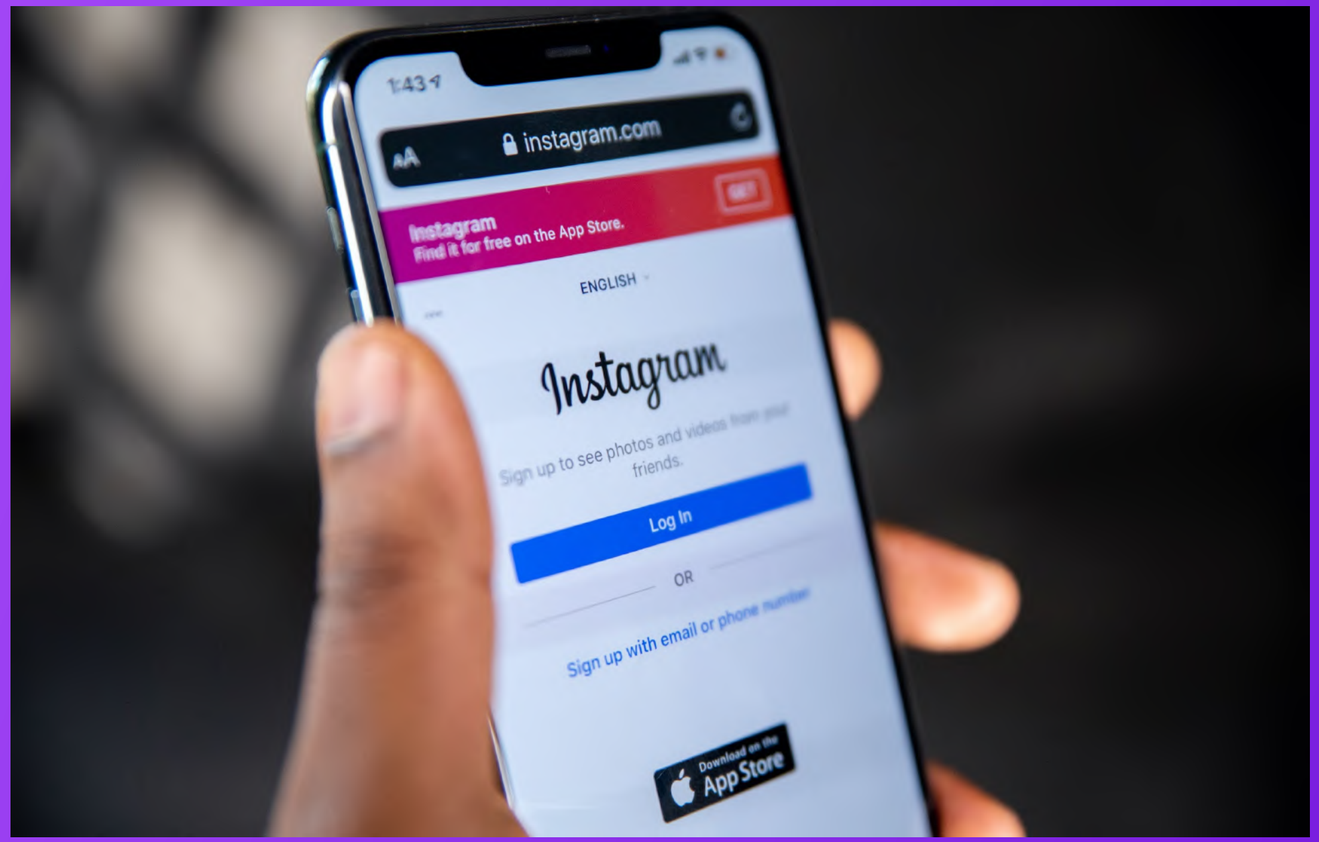
After our research we identified some metrics that will help marketing team to launch campaigns.

- Rewarding Most Loyal Users
- Remind Inactive Users to Start Posting
- Declaring Contest Winner
- Hashtag Researching
- Launch AD Campaign



Investor Metrices

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**
- **Bots & Fake Accounts**

SQL Queries

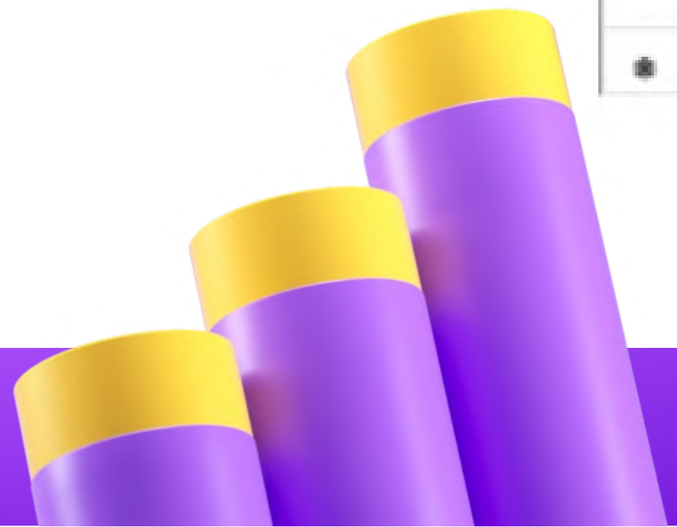
As a part of this project, we have used SQL to perform whole analysis. Given below are the questions and solutions provided for it.

1. Find the 5 oldest users of the Instagram from the database provided.(Rewarding Most Loyal Users)

```
SELECT * FROM users
ORDER BY created_at
LIMIT 5;
```

Result Grid | Filter Rows: | Ec

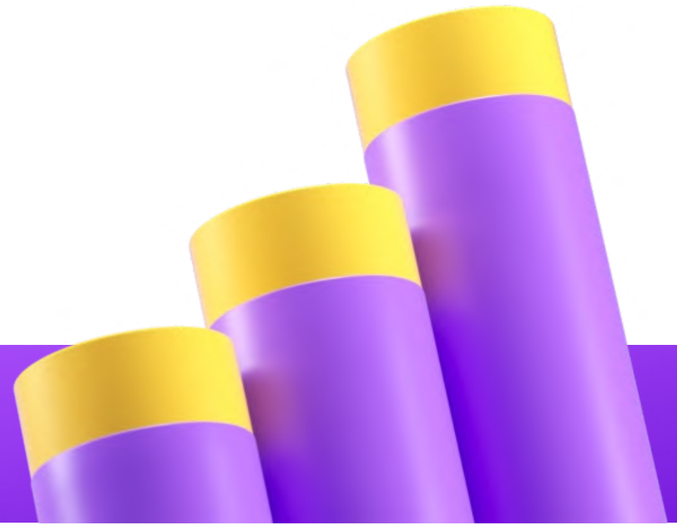
id	username	created_at
80	Darby_Herzog	2016-05-06 00:14:21
67	Emilio_Bernier52	2016-05-06 13:04:30
63	Elenor88	2016-05-08 01:30:41
95	Nicole71	2016-05-09 17:30:22
38	Jordyn.Jacobson2	2016-05-14 07:56:26
NULL	NULL	NULL



2. Find the users who have never posted a single photo on Instagram. (Remind Inactive Users to Start Posting)

```
SELECT username
FROM users
LEFT JOIN photos ON users.id = photos.user_id
WHERE photos.id IS NULL;
```

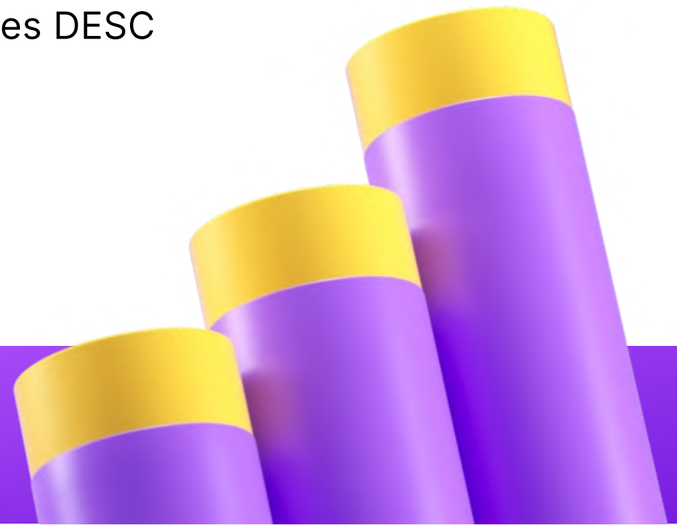
username
Aniya_Hackett
Kasandra_Homenick
Jadyn81
Rocio33
Maxwell.Halvorson
Tierra.Trantow
Pearl7
Ollie_Ledner37
Mckenna17
David.Osinski47
Morgan.Kassulke
Linnea59
Duane60
Julien_Schmidt
Mike.Auer39
Franco_Keebler64
Nia_Haag
Hulda.Macejkovic
Leslie67
Janelle.Nikolaus81
Darby_Herzog
Esther.Zulauf61
Bartholome.Bernhard
Jessyca_West
Esmeralda.Mraz57
Bethany20



3. Identify the winner of the contest who got the most likes on a single photo and provide their details to the team. (Declaring Contest Winner)

```
SELECT
    username,
    photos.id,
    photos.image_url,
    COUNT(*) AS total_likes
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_likes DESC
LIMIT 1;
```

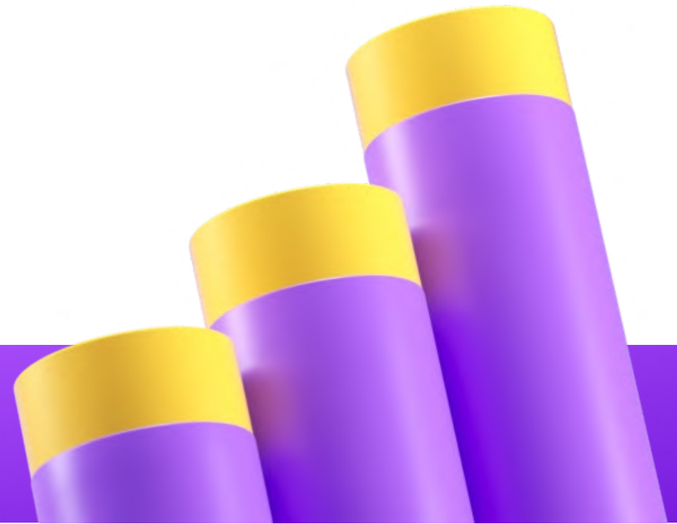
username	id	image_url	total_likes
Zack_Kemmer93	145	https://jarret.name	48



4. Identify and suggest the top 5 most commonly used hashtags on the platform. (Hashtags Researching)

```
SELECT tag_name, COUNT(tag_name) AS total
FROM tags
JOIN photo_tags ON tags.id = photo_tags.tag_id
GROUP BY tags.id
ORDER BY total DESC
Limit 5
```

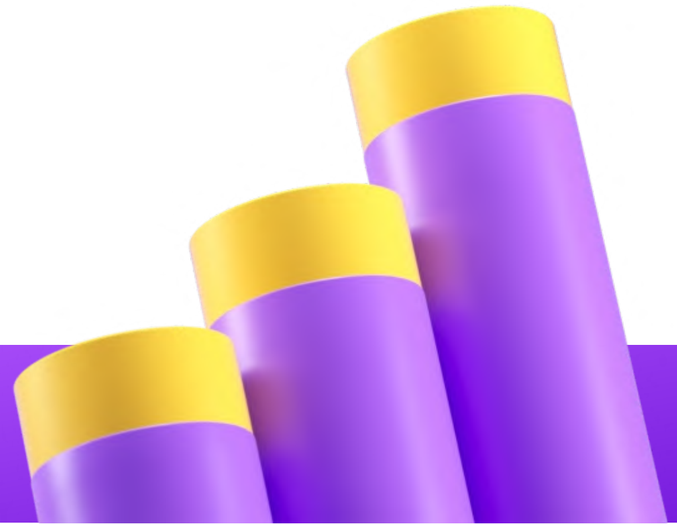
tag_name	total
smile	59
beach	42
party	39
fun	38
concert	24



5. What day of the week do most users register on? (Launch AD Campaign)

```
SELECT
    DAYNAME(created_at) AS day,
    COUNT(*) AS total_users_registered
FROM users
GROUP BY day
ORDER BY total_users_registered DESC
LIMIT 3;
```

day	total_users_registered
Thursday	16
Sunday	16
Friday	15



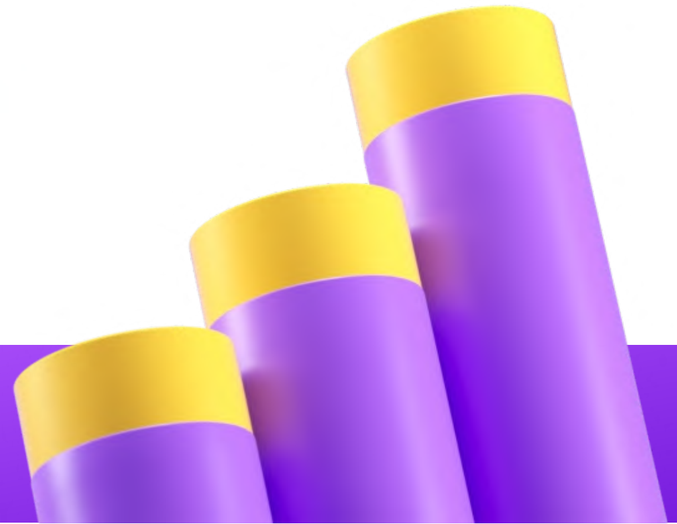
6. Provide how many times does average user posts on Instagram. Also, provide the total number of photos on Instagram/total number of users.(User Engagement)

```
SELECT users.username,COUNT(photos.image_url) as total_posts_by_user
FROM users
JOIN photos ON users.id = photos.user_id
GROUP BY users.id
ORDER BY total_posts_by_user DESC;
```

username	total_posts_by_user
Eveline95	12
Clint27	11
Cesar93	10
Delfina_VonRueden68	9
Aurelie71	8
Jaime53	8

```
SELECT ROUND((SELECT COUNT(*)FROM photos)/(SELECT COUNT(*) FROM users),2);
```

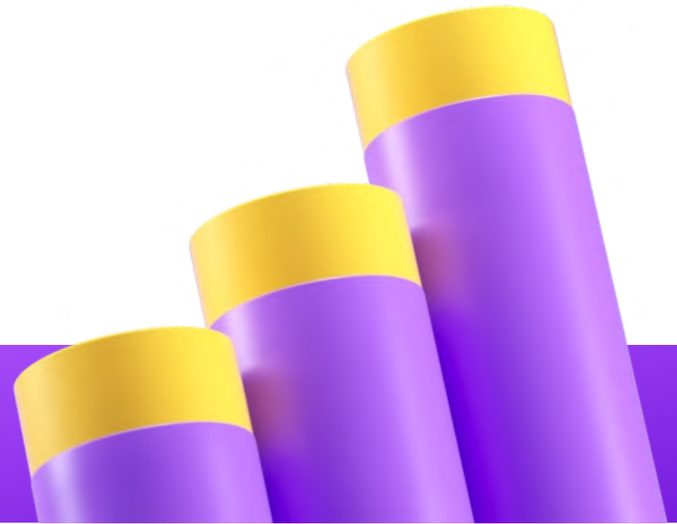
2.57



7. 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). (Bots and Fake Accounts)

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

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



Insights I gained while making the project

- While building the project, I faced many issues and solved each one of it by spending time and learning new things.
- I got to know how company perform analysis to generate insights for betterment of their business.
- Also, got familiar with MySQL workbench.

Tech-Stack Used

- MySQL Workbench 8.0.31

Thank You