Harnessing SQL for Targeted Instagram Marketing: Data Retrieval and Analysis
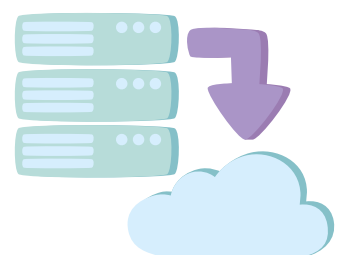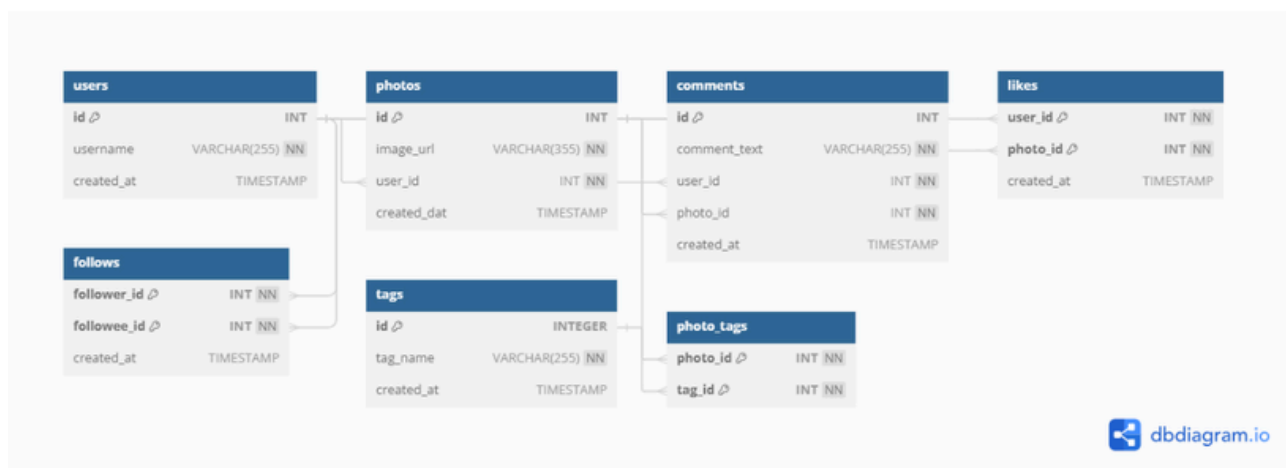
MY SQL PROJECT

Objective

- **Primary Objective** : Leverage SQL to retrieve and analyze Instagram data, enabling the development of targeted marketing strategies that drive higher engagement and more effective audience outreach.

- We need to examine dataset with SQL and help- the User to understand its business growth by answering simple questions.

Question Modes

- Easy – Queries include : SELECT, GROUP BY, ORDER BY, LIMIT, DESC.
- Moderate – Queries Include : JOINS, GROUP BY, ORDER BY, LIMIT.
- Advance – Queries Include : CTE (COMMON TABLE EXPRESSION).

INSTAGRAM DATABASE

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MY SQL PROJECT

Q1. Find the 5 oldest users.

Input :

```
SELECT username, created_at
FROM users
ORDER BY created_at ASC
LIMIT 5;
```

Output :

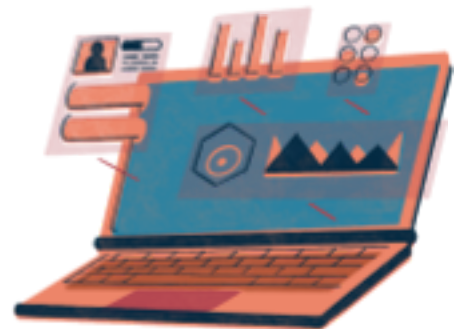| username	created_at
Darby_Herzog	2016-05-06 00:14:21
Emilio_Bernier52	2016-05-06 13:04:30
Elenor88	2016-05-08 01:30:41
Nicole71	2016-05-09 17:30:22
Jordyn.Jacobson2	2016-05-14 07:56:26

Q2. What day of the week do most users register on? We need to figure out when to schedule an ad campaign. invoices

Input :

```
SELECT DAYNAME(created_at) AS day_of_week, COUNT(*) AS
registrations
FROM users
GROUP BY day_of_week
ORDER BY registrations DESC
LIMIT 1;
```

Output :

day_of_week	registrations
Thursday	16

MY SQL PROJECT

Q3. We want to target our inactive users with an email campaign.Find the users who have never posted a photo1 invoices?

Input :

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

Output :

username
Aniya_Hackett
Kasandra_Homenick
Jaclyn81
Rocio33
Maxwell.Halvorson
Tierra.Trantow
Pearl7
Ollie_Ledner37

Q4. We're running a new contest to see who can get the most likes on a single photo.WHO WON??!!

Input :

```
SELECT p.id AS photo_id, p.user_id, u.username,
COUNT(l.user_id) AS like_count
FROM photos p
JOIN likes l ON p.id = l.photo_id
JOIN users u ON p.user_id = u.id
GROUP BY p.id
ORDER BY like_count DESC
LIMIT 1;
```

Output :

photo_id	user_id	username	like_count
145	52	Zack_Kemmer93	48

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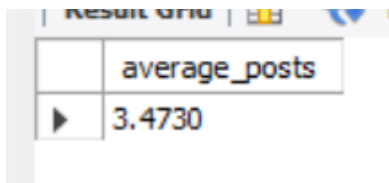
MY SQL PROJECT

Q5. Our Investors want to know... How many times does the average user post?

HINT - *total number of photos/total number of users*

Input :

```
SELECT AVG(photo_count) AS average_posts
FROM (
    SELECT COUNT(*) AS photo_count
    FROM photos
    GROUP BY user_id
) AS photo_counts;
```

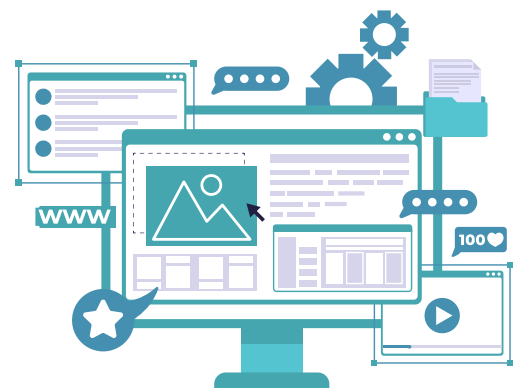Output :

average_posts
3.4730

Q6. user ranking by postings higher to lower

Input :

```
SELECT   u.username,   COUNT(p.id)   AS
post_count
FROM users u
LEFT JOIN photos p ON u.id = p.user_id
GROUP BY u.id
ORDER BY post_count DESC;
```

Output :

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

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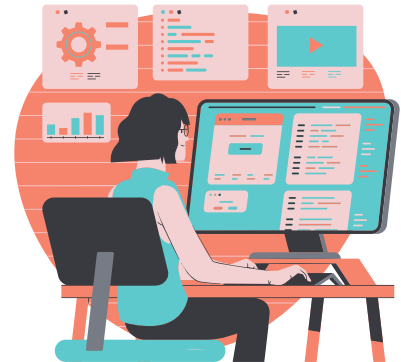
MY SQL PROJECT

Q7. total numbers of users who have posted at least one time.

Input :

```
SELECT COUNT(DISTINCT user_id) AS
users_with_posts
FROM photos;
```

Output :

users_with_posts
74

Q8. A brand wants to know which hashtags to use in a post What are the top 5 most commonly used hashtags?

Input :

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

Output :

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

MY SQL PROJECT

Q9. We have a small problem with bots on our site...Find users who have liked every single photo on the site.

Input :

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

Output :

username
▶ Aniya_Hackett
Jadyn81
Rocio33
Maxwell.Halvorson
Ollie_Ledner37
Mckenna17
Duane60
Julien_Schmidt

MY SQL PROJECT

Q10. Find users who have never commented on a photo.

Input :

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

Output :

username
Kenton_Kirlin
Kasandra_Homenick
Eveline95
Tierra.Trantow
Jaime53
Pearl7
David.Osinski47
Morgan.Kassulke

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Project Resource

- GitHub Project Link : https://github.com/karna-chaskar/SQL-Projects/

Profile Links

- LinkedIn Profile : https://www.linkedin.com/in/md-tahseen-equbal-/

- GitHub Profile : https://github.com/Md-Tahseen-Equbal

- Mail Id : mdtahseen278@gmail.com

THANK YOU!

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