

# INSTAGRAM USER ANALYTICS

## SQL Fundamentals

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### Project Description

Instagram is a photo and video sharing social networking service owned by Meta Platforms. The app is used to upload media with hashtags and geographical tagging. Posts can be shared publicly or with followers. Users can browse content by tag and location, view trending content, like photos, and follow other users to add their content to a personal feed.

This project aims to derive business insights for marketing, product & development teams to track how users engage and interact with the digital product (software or mobile application)

### Approach

In this project, I have followed the below approaches:

#The marketing team wants to launch some campaigns and need help

#The 5 oldest users of Instagram

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

#Users who have never posted a single photo on Instagram

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

# The winner of the contest and their details

```
SELECT users.username, photos.id, photos.image_url, COUNT(*) AS Total_Likes  
FROM likes  
JOIN photos ON photos.id = likes.photo_id  
JOIN users ON users.id = likes.user_id  
GROUP BY photos.id  
ORDER BY Total_Likes DESC  
LIMIT 1;
```

#Top 5 most commonly used hashtags on the platform

```
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;
```

#The days when most users register and insights on when to schedule an ad campaign

```
SELECT DAYNAME(created_at) AS day, COUNT(*) AS total  
FROM users  
GROUP BY day
```

```
ORDER BY total DESC
LIMIT 2;
```

#An assessment for the investors who want to know if Instagram is performing well and is not becoming redundant like Facebook

#How many times does an average user posts on Instagram.

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

#Total number of photos on Instagram/total number of users

```
SELECT users.username,COUNT(photos.image_url)
FROM users
JOIN photos ON users.id = photos.user_id
GROUP BY users.id
ORDER BY 2 DESC;
```

#Data on users who have liked every single photo on the site

```
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);
```

## Tech-Stack Used

MySQL Workbench 8.0 CE

*Purpose:* For running queries

## Insights

- The 5 oldest users of Instagram are:  
Darby\_Herzog  
Emilio\_Bernier52  
Elenor88  
Nicole71  
Jordyn.Jacobson2
- Users who have never posted on Instagram  
Aniya\_Hackett  
Kasandra\_Homenick  
Jaclyn81  
Rocio33  
Maxwell.Halvorson
- The winner of the contest on Instagram was  
Name: Harley Lind18  
Id: 145  
Image url: <https://jarret.name>

Likes: 48

- Top 5 hastags
  - smile
  - beach
  - party
  - fun
  - food
- Best days to run ad campaigns
  - Thursday & Sunday
- Average user post: 2.57
- No. of users/Total no. of photos

Eveline95	12
Clint27	11
Cesar93	10
Delfina_VonRueden68	9
Aurelie71	8
Jaime53	8
Donald.Fritsch	6
Yvette.Gottlieb91	5
Zack_Kemmer93	5
Harrison.Beatty50	5
Travon.Waters	5
Alexandro35	5
Mariano_Koch3	5
Colten.Harris76	5
Justina.Gaylord27	5
Kenton_Kirlin	5
Kathryn80	5
Adelle96	5
Janet.Armstrong	5
Florence99	5
Josianne.Friesen	5
Andre_Purdy85	4
Harley_Lind18	4
Gus93	4
Tabitha_Schamberger11	4
Malinda_Streich	4
Dereck65	4
Seth46	4
Elenor88	4
Irwin.Larson	4
Dario77	4

Annalise.McKenzie16	4
Billy52	4
Rick29	4
Arely_Bogan63	3
Presley_McClure	3
Gerard79	3
Emilio_Bernier52	3
Norbert_Carroll35	3
Maya.Farrell	3
Frederik_Rice	3
Keenan.Schamberger60	3
Alek_Watsica	3
Jordyn.Jacobson2	2
Javonte83	2
Aracely.Johnston98	2
Alysa22	2
Milford_Gleichner42	2
Sam52	2
Ressie_Stanton46	2
Hailee26	2
Willie_Leuschke	2
Nicole71	2
Kaley9	2
Tomas.Beatty93	2
Lennie_Hartmann40	2
Aiyana_Hoeger	1
Darwin29	1
Katarina.Dibbert	1
Rafael.Hickle2	1
Jayson65	1
Kelsi26	1
Kenneth64	1
Delpha.Kihn	1
Granville_Kutch	1
Odessa2	1
Yazmin_Mills95	1
Damon35	1
Karley_Bosco	1
Erick5	1
Meggie_Doyle	1
Imani_Nicolas17	1
Peter.Stehr0	1
Jaylan.Lakin	1

- Spam users who have liked every single photo

Aniya\_Hackett

Jaclyn81

Rocio33

Maxwell.Halvorson

Ollie\_Ledner37

Mckenna17

Duane60

Julien\_Schmidt

Mike.Auer39

Nia\_Haag

Leslie67

Janelle.Nikolaus81

Bethany20

## **Result**

I have learnt a lot of techniques using SQL. I gained knowledge about SQL queries, sub-queries, joins, group by, order by and more such functions.