

Instagram User Analytics – SQL Fundamentals

Project Description -

In this Project, The main goal is to help marketing team to run campaigns successfully to get more visitor and customer interactions. This project heads towards to create & give rewards to best performer and push dormant accounts to connect more with instagram platform. Research instagram hashtags for brand collaborations & ad campaigns. This project will identify fake account profiles also.

Approach -

I have first installed MySQL Server and MySQL Workbench on my Systems. I have created database with the help of SQL commands. After Database was ready and good to used, I used SQL queries to get answered of all task for Instagram Campaign.

Tech - Stack Used -

MySQL Server, MySQL workbench, MySQL Shell with Version 8.0.30 and Architecture X64.

Insights -

1. Find The 5 oldest Instagram users are which are using Instagram from longest time using below code –

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

ID	Username	Created_at
1	Darby_Herzog	05-06-2016 00:14:21AM
2	Emilio_Bernier52	05-06-2016 01:04:30PM
3	Elenor88	05-08-2016 01:30:41AM
4	Nicole71	05-09-2016 17:30:22PM
5	Jordyn.jacobson2	05-14-2016 7:56:26 AM

2. Find the the inactive users of Instagram which are never connected from longest time using below code –

```
SELECT
id,
username
FROM users
WHERE id NOT IN (SELECT user_id FROM photos);
```

Username
Aniya_Hackett
Kasandra_Homenick
Jaclyn81
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. The winner of the contest and username used below code –

```

SELECT
users.username AS Name,
likes.photo_id AS photo_id,
COUNT(likes.photo_id) AS photo_like_count
FROM users
INNER JOIN photos
ON users.id = photos.user_id
INNER JOIN likes
ON photos.id = likes.photo_id
GROUP BY likes.photo_id
ORDER BY photo_like_count DESC
LIMIT 1;

```

User_id	Username	Photo_id	numberOfLikes
52	Zack_Kemmer93	145	48

4. Find the hashtags which is useful for the marketing team to run campaigns using below code-

```

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

```

id	tag_name	numberOfTimesUsed
21	smile	59
20	beach	42
17	party	39
13	fun	38
18	concert	24

5. Find the List of all the fake accounts on Instagram which are not real accounts.

```

SELECT
likes.user_id,
COUNT(DISTINCT photo_id) AS number_of_photos_liked
FROM likes
INNER JOIN photos
ON likes.photo_id = photos.id
GROUP BY user_id
HAVING COUNT(DISTINCT photo_id) = (SELECT COUNT(DISTINCT id) FROM photos) ;

```

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

6. Find the days which are good to upload post –

```

SELECT
WEEKDAY(created_at) AS weekday,

```

```

COUNT(WEEKDAY(created_at)) AS freq
FROM users
GROUP BY weekday
ORDER BY freq DESC
LIMIT 3;

```

dayOfTheWeek	numberOfAccountsRegistered
5 (other days)	16
1 (Thursday)	16

7. Find the total number of users,posts –

```

select
    user_id,
    count(user_id) as number_of_posts
from photos
group by user_id)
select
    avg(number_of_posts) as avg_number_of_posts,
    count(user_id) as total_users
from t1;

```

numberOfUsers	numberOfPosts	numberOfTimesAverage
283	257	0.9

Results -

1. This project give me an idea of how can we used data & used it for analysis of company performance.
2. Also this project has given me SQL knowledge and how we can used it to run data and get insights of it.
3. This Instagram analytics project given an idea of how marketing people got details of every customer engagement.