Instagram User Analytics

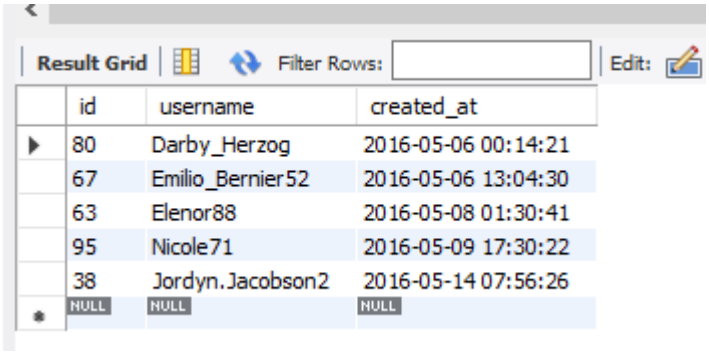
Project Description

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.

i. **Marketing**: The marketing team wants to launch some campaigns, and they need your help with the following

Rewarding Most Loyal Users:

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

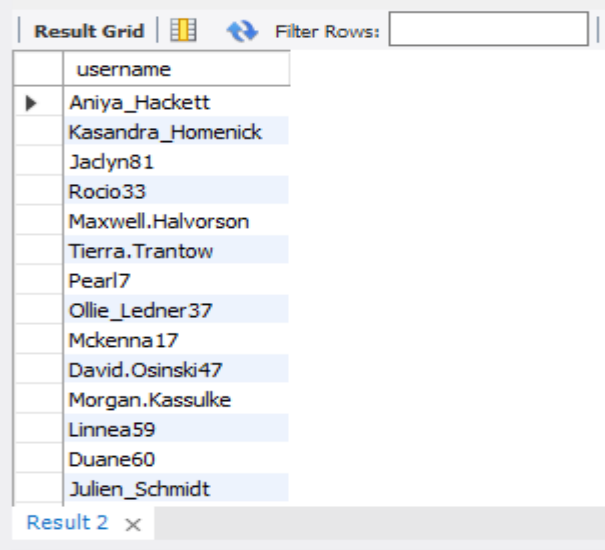


Result Grid | Filter Rows: | Edit:

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

Remind Inactive Users to Start Posting:

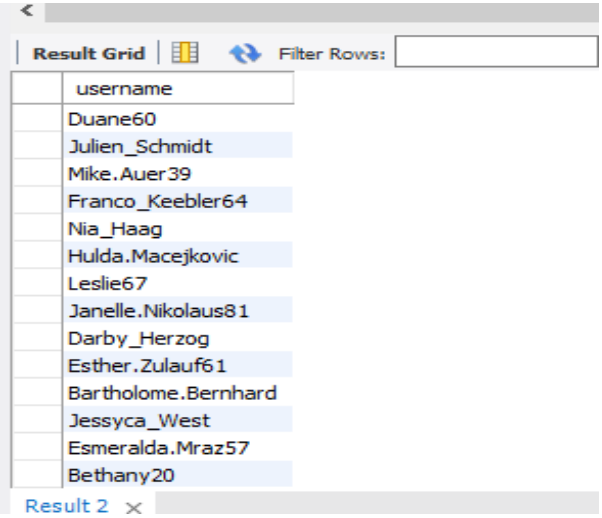
```
SELECT username
FROM users
LEFT JOIN photos
  ON users.id = photos.user_id
WHERE photos.id IS NULL;
```



Result Grid | Filter Rows:

username
Aniya_Hackett
Kasandra_Homenick
Jaclyn81
Rocio33
Maxwell.Halvorson
Tierra.Trantow
Pearl7
Ollie_Ledner37
Mckenna17
David.Osinski47
Morgan.Kassulke
Linnea59
Duane60
Julien_Schmidt

Result 2



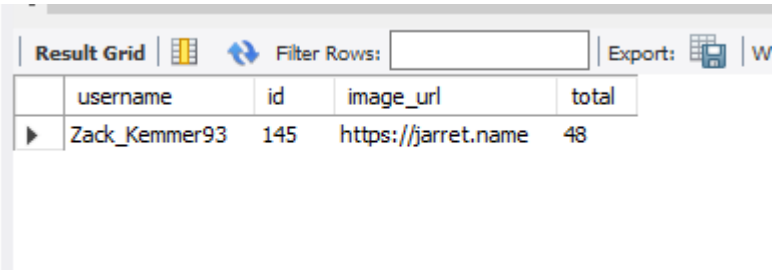
Result Grid | Filter Rows:

username
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

Result 2

Declaring Contest Winner:

```
SELECT username,
photos.id,
photos.image_url,
count(*) AS total
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
LIMIT 1 DESC;
```

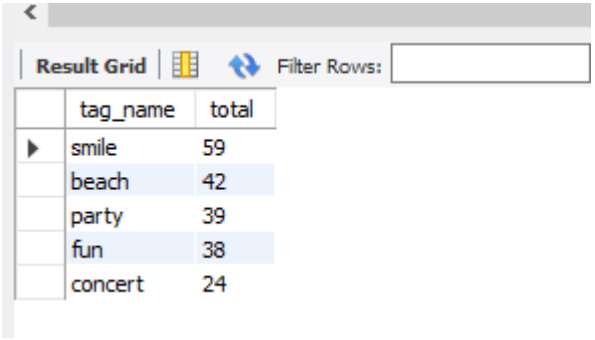


Result Grid | Filter Rows: | Export: | W

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

Hashtag Researching:

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

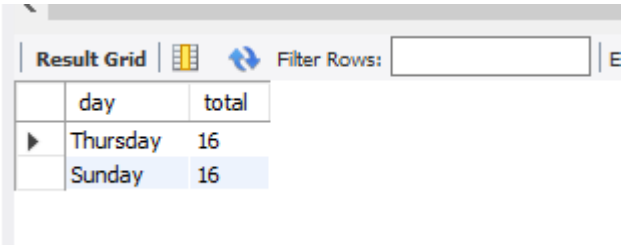


Result Grid | Filter Rows:

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

Launch AD Campaign:

```
SELECT
DAYNAME (created_at) AS day,
count (*) AS total
FROM users
GROUP BY day
ORDER BY total DESC
LIMIT 2;
```



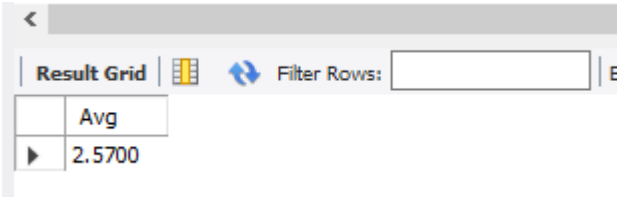
Result Grid | Filter Rows: | E

day	total
Thursday	16
Sunday	16

ii. **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

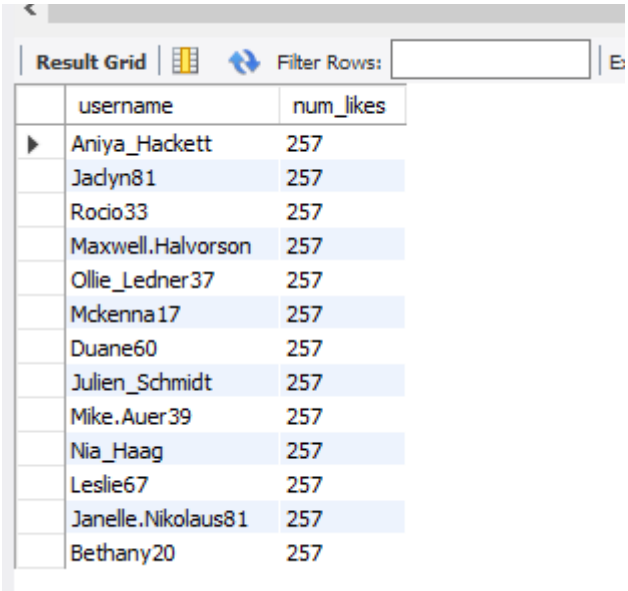
User Engagement:

SELECT (SELECT COUNT(*) FROM photos) / (SELECT COUNT(*) FROM users) AS avg;



Bots & Fake Accounts:

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



username	num_likes
Aniya_Hackett	257
Jaclyn81	257
Rocio33	257
Maxwell.Halvorson	257
Ollie_Ledner37	257
Mckenna17	257
Duane60	257
Julien_Schmidt	257
Mike.Auer39	257
Nia_Haag	257
Leslie67	257
Janelle.Nikolaus81	257
Bethany20	257

- **Approach:**
  There is a Data set related to users which is given in the project. Taking the data set and cloning the data set into MySQL workbench. By creating database in MySQL. Creating the tables which were required and inserting the values into that tables. With the help of the SQL fundamentals solving the problems which were given in project.

- **Tech-Stack:**
  MYSQL WORKBENCH 8.0.32

- **Used:**
  MYSQL database has been used throughout this project. Writing the queries and configuring the query to get the desired output as per questions mentioned in the project. And the purpose of using this tool is because only MySQL is required for me to figure out the problems related to this project.

- **Insights**:
  By this project I came across to learn about JOINS and fundamentals of SQL. How to analyse the given problem statement what are the functions we can use in SQL and write the queries to get desired output.
  • It was observed that who is the most loyal users of Instagram that is, the user who has been using Instagram from many years.
  • Finding out the inactive user of Instagram and asking them to post their first photo on Instagram.
  • Awarding the user with maximum number of likes for their photo.
  • Finding out the most used hashtags on the Instagram which many users used and reached more in the Instagram.
  • We got to know what day of the week would be the best to launch Ads on the Instagram so that it would reach to maximum users.
  • It was observed that how the users are engaged on Instagram and how often they post and average number of posts per user was observed.
  • Bots and Fake accounts were discovered as we all know that normal people usually not like all the posts on Instagram.

- **Result:**
  By this project I have achieved and gain knowledge how to clean the data with help of MySQL. And how to interact with database and how to customize the query to get the desired output.