

Project Description:

Perform Instagram user analysis to track the user interactions and engagement with the instagram app.

Purpose of the Project:

To derive valuable insights by tracking how users engage with the instagram app.

Tech-Stack Used:

To complete this project, I have used software MySQL workbench 8.0.34 CE. I have choose to use MYSQL for my project as it is an easy-to-use MYSQL workbench. It is used to creating database and writing SQL queries. I have also use MS Word to create the report on Instagram User Analystics in the form of PDF.

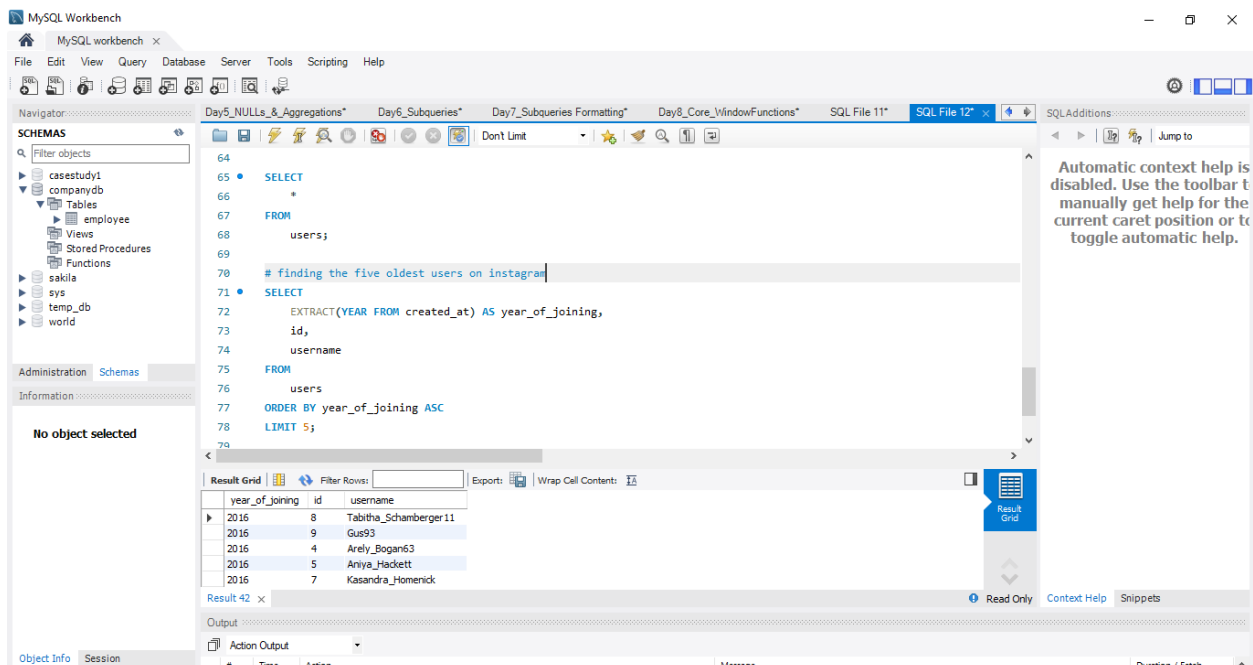
Approach:

After analyzing the dataset that contains all the information of the users and the activities performed by them on instagram app, I have found that

1. 5 Most loyal Users who are using instagram for the longest time:

year_of_joining	id	username
2016	8	Tabitha_Schamberger11
2016	9	Gus93
2016	4	Arely_Bogan63
2016	5	Aniya_Hackett
2016	7	Kasandra_Homenick

SQL Query With Output:



The screenshot displays the MySQL Workbench interface. The central editor shows a SQL query designed to find the five oldest users on Instagram based on their joining year. The query is as follows:

```
SELECT *
FROM users;

# finding the five oldest users on instagram
SELECT
  EXTRACT(YEAR FROM created_at) AS year_of_joining,
  id,
  username
FROM users
ORDER BY year_of_joining ASC
LIMIT 5;
```

Below the query editor, the 'Result Grid' tab is active, showing the output of the query. The results are presented in a table with three columns: 'year_of_joining', 'id', and 'username'. The data rows are:

year_of_joining	id	username
2016	8	Tabitha_Schamberger11
2016	9	Gus93
2016	4	Arely_Bogan63
2016	5	Aniya_Hackett
2016	7	Kasandra_Homenick

The interface also includes a left-hand sidebar with a 'SCHEMAS' tree, a top menu bar, and a right-hand pane with context help and snippets.

2. List of Users who have never posted a single Photo on instagram

Insight Gained:

This list of users can be used for creating and sending cold emails by marketing team to motivate these users to come back to Instagram.

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

SQL Query With Output

The screenshot displays the MySQL Workbench interface. The main editor window contains the following SQL query:

```
82 *
83 FROM
84   photos;
85 • SELECT
86   *
87 FROM
88   users;
89 • SELECT
90   username
91 FROM
92   users
93   LEFT JOIN
94   photos ON users.id = photos.user_id
95 WHERE
96   user_id IS NULL;
```

The query results are displayed in the 'Result Grid' at the bottom. The results show a list of usernames:

username
Aniya_Hackett
Kassandra_Homenick
Jadyn81
Rocio33
Maxwell_Halvorson

The 'Output' pane at the bottom shows 'Action Output'.

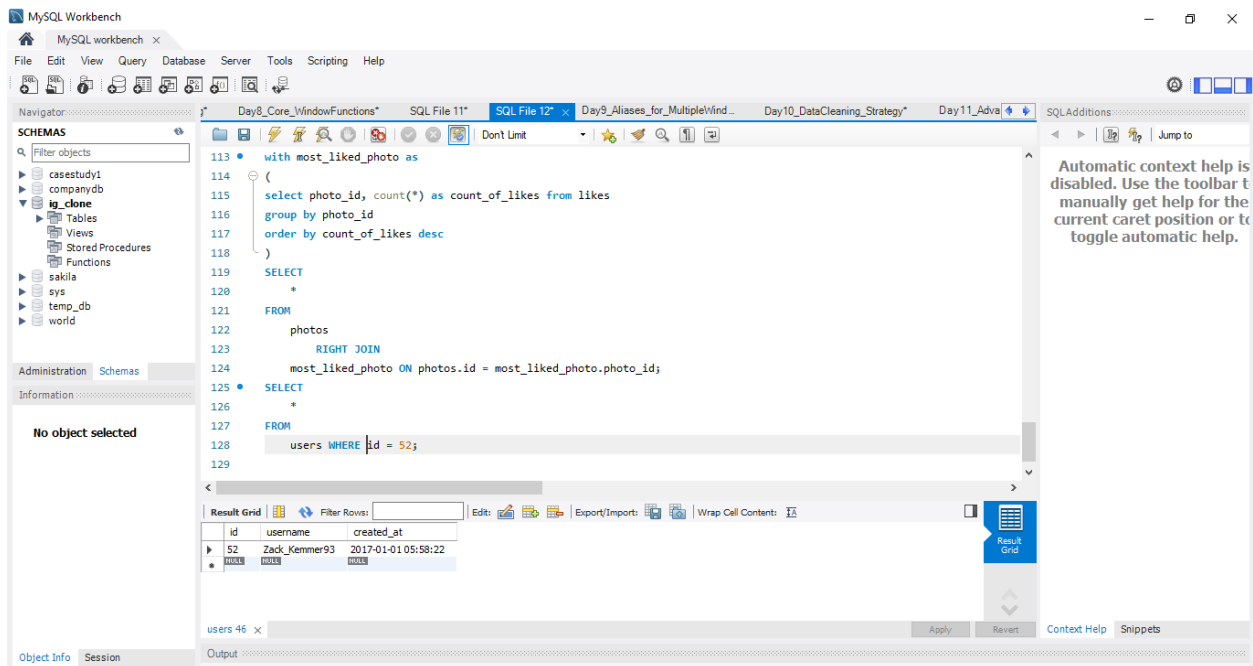
On the right side of the interface, a message states: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help."

3. The Winner of the Contest

After analyzing the data provided, the winner of the contest with the most likes on a single photo is Zeck Kemmer.

id	username
52	Zack_Kemmer93

SQL Query With Output:



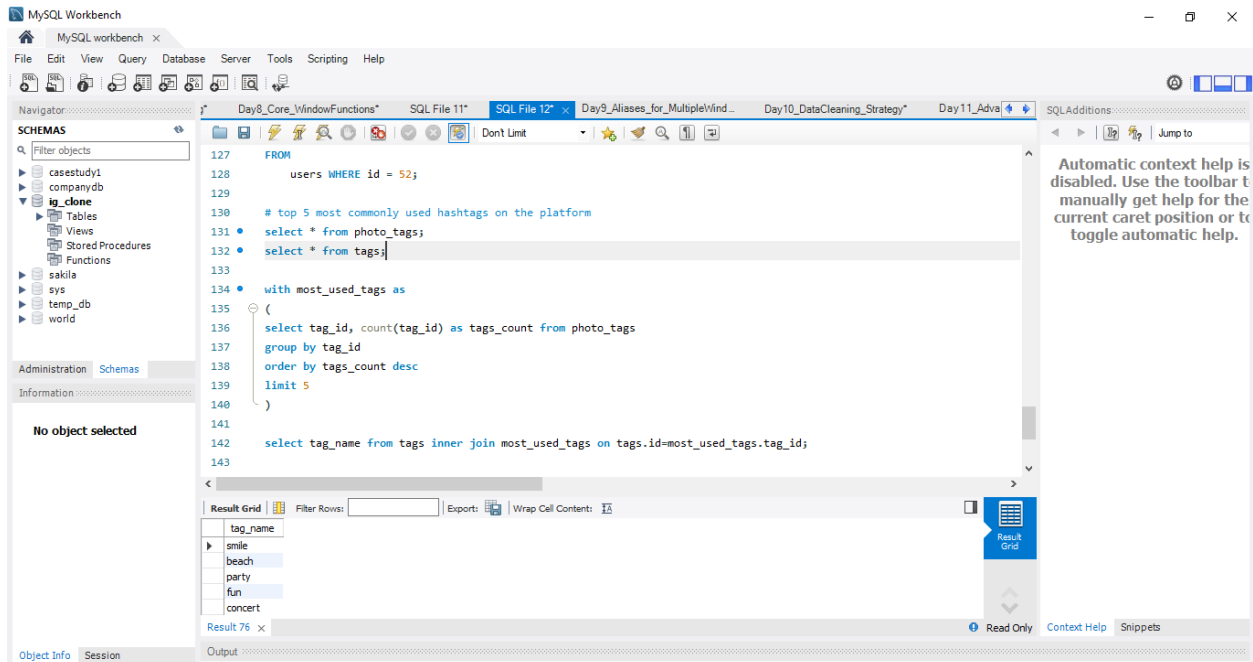
4. Top 5 most commonly used hashtags on the platform

Insight Gained:

Partner brand can use these hashtags in their posts to reach most people.

tag_name
smile
beach
party
fun
concert

SQL query With Output:



5. Day of the week when most Users register on Instagram

After analysis, I found that Thursday and Sunday are the days of the week when most users joined instagram. I have used dayname() which is used to get the name of the day of the week from date.

Insight Gained:

The marketing team can schedule an ad campaigns on Thursday and Sunday as users registered on Instagram on these two days are the most. Here is the output of the SQL query:

day_of_joining	dates_count
Thursday	16
Sunday	16
Friday	15
Tuesday	14
Monday	14
Wednesday	13
Saturday	12

SQL query With Output

The screenshot displays the MySQL Workbench interface. The left sidebar shows the 'SCHEMAS' panel with a tree view of databases including 'casestudy1', 'companydb', 'ig_clone', 'sakila', 'sys', 'temp_db', and 'world'. The 'ig_clone' database is selected. The main editor window shows an SQL query with line numbers 145 to 161. The query is as follows:

```
145
146 • select * from users;
147
148 • with joining_date as
149 (
150   select created_at, left(created_at, 10) as date_of_joining from users
151 )
152   # dayname() is used to get the name of the day of the week
153
154   SELECT
155     DAYNAME(date_of_joining) AS day_of_joining,
156     COUNT(*) AS dates_count
157   FROM
158     joining_date
159   GROUP BY day_of_joining
160   ORDER BY dates_count DESC;
161
```

Below the query editor, the 'Result Grid' is visible, showing the output of the query. The grid has two columns: 'day_of_joining' and 'dates_count'. The data is as follows:

day_of_joining	dates_count
Thursday	16
Sunday	16
Friday	15
Tuesday	14
Monday	14

At the bottom of the result grid, it says 'Result: 45 x'. The right sidebar contains a 'Context Help' panel with the text: 'Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.'

For Investors:

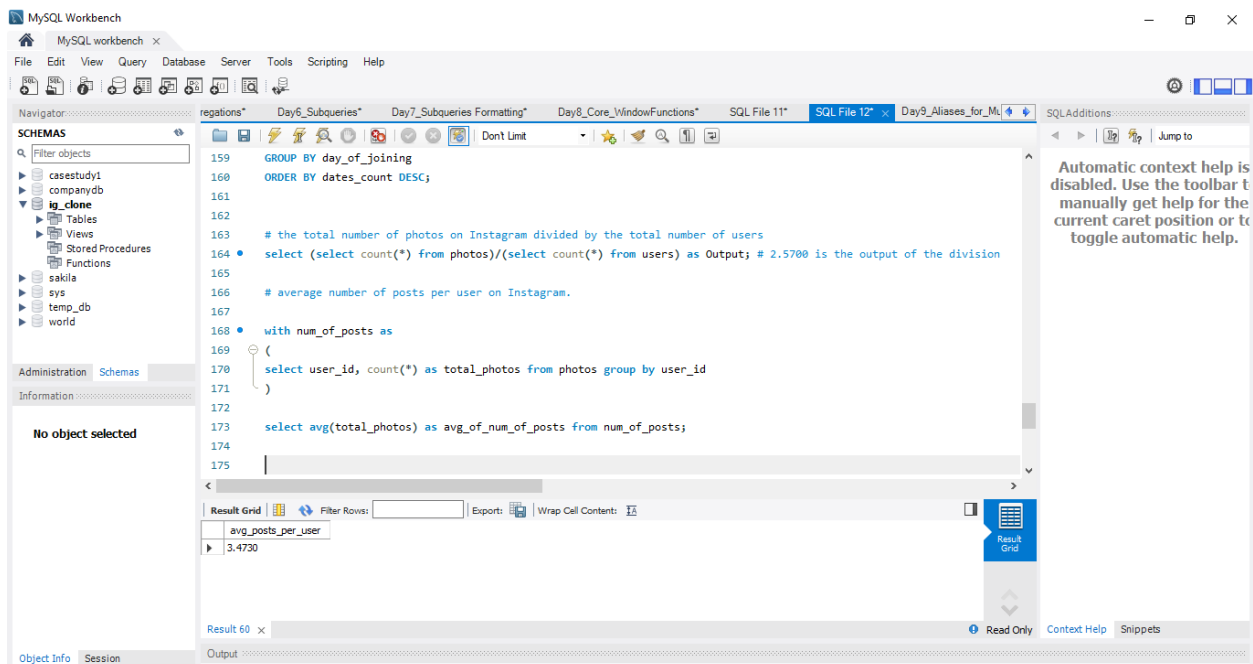
1. User Engagement with Instagram:

So, after analysis the average number of posts per user on Instagram is 3.4730. Also, the total number of photos on Instagram divided by the total number of users is 2.5700.

Insight found:

This will provide an overview of the users who are still active and posting on Instagram and who are not.

SQL query With Output



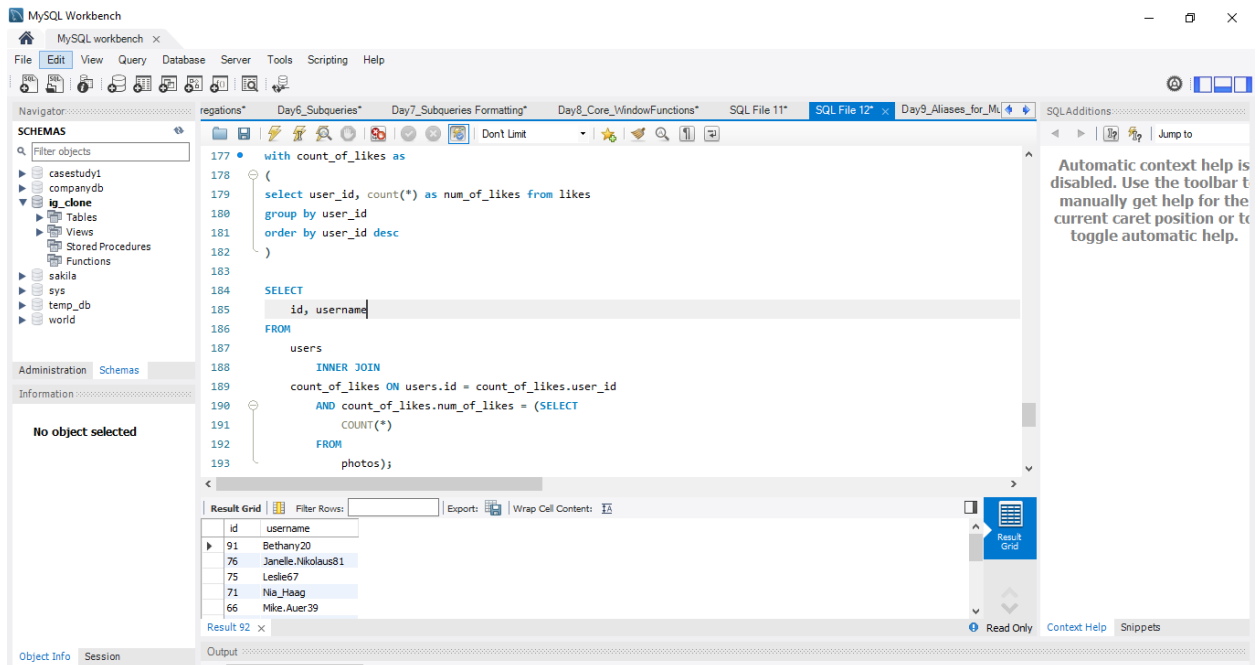
2. Bots and Fake Accounts

Here is the list of users who have likes every single photo on the site, which indicates that they are probably the bots and are fake accounts.

id	username
91	Bethany20
76	Janelle.Nikolaus81
75	Leslie67
71	Nia_Haag
66	Mike.Auer39
57	Julien_Schmidt
54	Duane60
41	Mckenna17
36	Ollie_Ledner37

24	Maxwell.Halvorson
21	Rocio33
14	Jaclyn81
5	Aniya_Hackett

SQL Query With Output



Insights:

Here is the list of insights I found:

- Top 5 long time users of Instagram
- Users who never posted a single photo on Instagram
- Most liked photo on Instagram.
- Day of the week when most users joined the instagram
- Top 5 most commonly used hashtags on Instagram
- Average number of photos per user
- Bots and fake accounts on Instagram

These insights can be used by product team to launch new campaigns, track users engagement and improve user experience.

Result:

This project gave me an idea on how a data analyst works on real-time data. This project also helped me to hone my SQL skills and also drives me to learn more about SQL.