Instagram User Analytics
SQL Fundamentals
Project-2

NAME:ASIMA SIDDIQUA

1. Project Description:

I provided insights into user interactions and engagement for Instagram's product team as a data analyst for this project. The purpose of using SQL queries running in MySQL Workbench to analyse Instagram user data was to help the product and marketing teams make well-informed decisions. In order to impact Instagram's future development, the initiative concentrated on issues including investment metrics, user engagement, and marketing techniques.

2. Approach:

I started by running the supplied SQL script in MySQL Workbench to set up the given database.

I then extracted the data required for each task using SQL queries, making sure that the queries were effective and produced accurate results. I created SQL queries for each operation in order to address particular business issues, like figuring out who the most devoted users were, spotting possible bots, and generating user engagement data.

3.Tech-Stack Used:

MySQL Workbench: I chose MySQL Workbench for its robust database management capabilities and ease of executing SQL queries.

SQL: Structured Query Language (SQL) was used to interact with the Instagram database and retrieve the necessary data for analysis.

4. Insights:

I learnt a lot about Instagram user behaviour and trends from working on this project, knowledge that will be useful for making business decisions.

Loyal Users: Since the platform's inception, there have been regular, long-term users who have participated. Loyalty programs can be tailored to these users, promoting increased brand retention and loyalty.

Inactive Users: There is a chance for re-engagement marketing because a sizable portion of users have registered but have never uploaded any photos. Email advertising and app notifications are effective ways to engage this

audience.

Popular Content: The person who has received the greatest likes on a single image exemplifies the kinds of content that people find most appealing. It is possible to recreate effective content strategies by using this information.

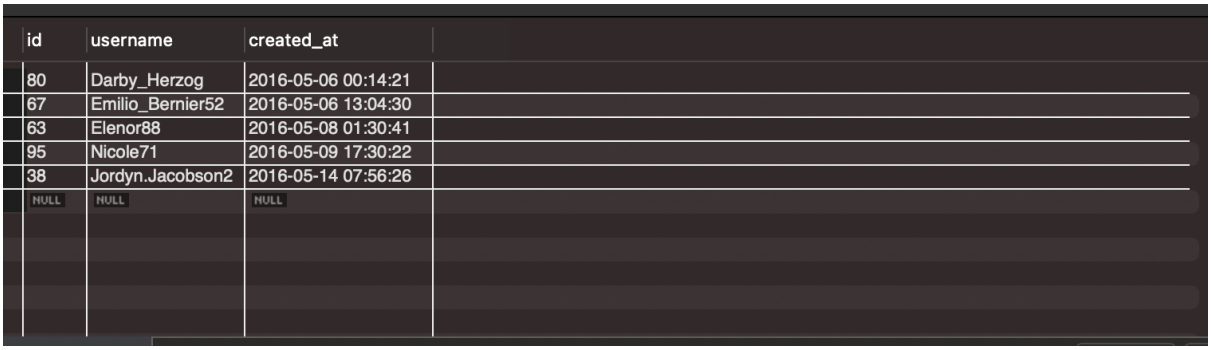
Research on Hashtags: The most popular hashtags reveal popular subjects and ideas that encourage user interaction. These hashtags can be used by partner brands to boost their visibility.

Launch of Ad Campaign: The data revealed that the majority of users sign up on particular days of the week, offering the most advantageous period of time for the launch of advertising campaigns in order to optimise reach.

5.Result:

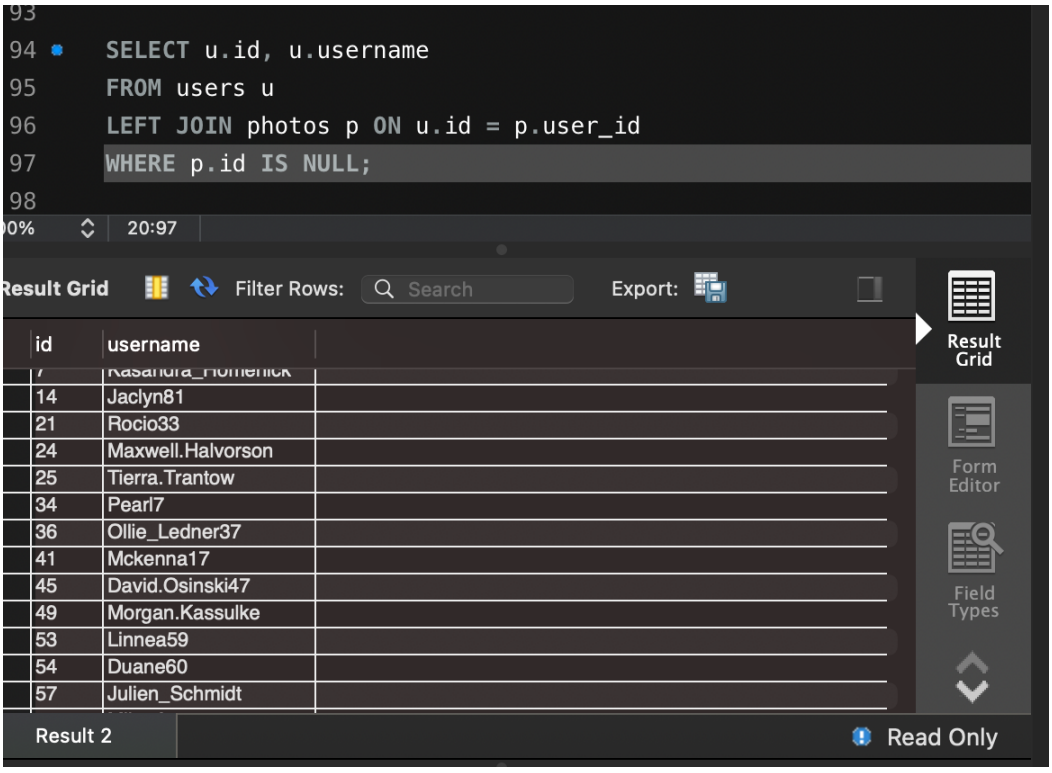
A) Marketing Analysis:

1. Loyal User Reward:



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

2. Inactive User Engagement:



```
93
94    SELECT u.id, u.username
95    FROM users u
96    LEFT JOIN photos p ON u.id = p.user_id
97    WHERE p.id IS NULL;
98
```

20:97

Result Grid | Filter Rows: Search | Export:

id	username
14	Jaclyn81
21	Rocio33
24	Maxwell.Halvorson
25	Tierra.Trantow
34	Pearl7
36	Ollie_Ledner37
41	Mckenna17
45	David.Osinski47
49	Morgan.Kassulke
53	Linnea59
54	Duane60
57	Julien_Schmidt

Result Grid | Form Editor | Field Types

Result 2 | Read Only

3. Contest Winner Declaration:

```
98
99  SELECT p.id AS photo_id, p.user_id, u.username, p.image_url, COUNT
100 FROM photos p
```

100% 1:106

Result Grid | Filter Rows: Search | Export: | Fetch rows:

photo_id	user_id	username	image_url	likes
145	52	Zack_Kemmer93	https://jarret.name	48

Result Grid | Form Editor | Field Types

Result 3 | Read Only

4. Hashtag Research:

```
07  SELECT t.tag_name, COUNT(pt.tag_id) AS usage_count
08  FROM tags t
09  JOIN photo_tags pt ON t.id = pt.tag_id
10  GROUP BY t.tag_name
11  ORDER BY usage_count DESC
12  LIMIT 5;
13
```

% 9:112

esult Grid | Filter Rows: Search | Export: | Fetch rows:

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

Result Grid | Form Editor

5.Ad Campaign Launch:

```
113
114 •  SELECT DAYNAME(created_at) AS day_of_week, COUNT(id) AS total_regi
115    FROM users
116    GROUP BY day_of_week
117    ORDER BY total_registrations DESC
118    LIMIT 1;
119
120
```

00% 11:115

Result Grid | Filter Rows: Search | Export: | Fetch rows:

day_of_week	total_registrati...
Thursday	16

Result Grid

B) Investor Metrics

1. User Engagement:

```
124        GROUP BY user_id
125    ) AS user_post_counts;
126
127 •  SELECT COUNT(id) AS total_photos, (SELECT COUNT(id) FROM users) A
128           (COUNT(id) / (SELECT COUNT(id) FROM users)) AS avg_photos_
129    FROM photos;
130
131
```

0% 13:129

Result Grid | Filter Rows: Search | Export:

total_phot...	total_users	avg_photos_per_u...
257	100	2.5700

Result Grid

Form Editor

2. Bots & Fake Accounts:

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