

## PROJECT DESCRIPTION

This project involves analyzing user interactions and engagement with the Instagram app to provide valuable insights that can help the business grow.

User analysis involves tracking how users engage with a digital product, such as a software application or a mobile app. The insights derived from this analysis can be used by various teams within the business.

## APPROACH

To handle the Instagram user analytics problem SQL is taken into consideration. With the help of SQL queries various analysis will be done.

## TECH-STACK USED

I have used Virtual Studio code by installing MSSQL extension from the VS code marketplace

## INSIGHTS

### A) Marketing Analysis:

1. **Loyal User Reward:** The marketing team wants to reward the most loyal users, i.e., those who have been using the platform for the longest time.

Q	id int	username varchar	created_at timestamp
1	80	Darby_Herzog	2016-05-06 00:14:21
2	67	Emilio_Bernier52	2016-05-06 13:04:30
3	63	Elenor88	2016-05-08 01:30:41
4	95	Nicole71	2016-05-09 17:30:22
5	38	Jordyn.Jacobson2	2016-05-14 07:56:26

These are the 5 oldest users from the database. This means, they are the most loyal customers.

2. **Inactive User Engagement:** The team wants to encourage inactive users to start posting by sending them promotional emails.

id	username	created_at
5	Aniya_Hackett	12/7/2016 1:04
7	Kasandra_Homenick	12/12/2016 6:50
14	Jaclyn81	2/6/2017 23:29
21	Rocio33	1/23/2017 11:51
24	Maxwell.Halvorson	4/18/2017 2:32
25	Tierra.Trantow	10/3/2016 12:49
34	Pearl7	7/8/2016 21:42
36	Ollie_Ledner37	8/4/2016 15:42
41	Mckenna17	7/17/2016 17:25
45	David.Osinski47	2/5/2017 21:23
49	Morgan.Kassulke	10/30/2016 12:42
53	Linnea59	2/7/2017 7:49
54	Duane60	12/21/2016 4:43
57	Julien_Schmidt	2/2/2017 23:12
66	Mike.Auer39	7/1/2016 17:36
68	Franco_Keebler64	11/13/2016 20:09
71	Nia_Haag	5/14/2016 15:38
74	Hulda.Macejkovic	1/25/2017 17:17
75	Leslie67	9/21/2016 5:14
76	Janelle.Nikolaus81	7/21/2016 9:26
80	Darby_Herzog	5/6/2016 0:14
81	Esther.Zulauf61	1/14/2017 17:02
83	Bartholome.Bernhard	11/6/2016 2:31
89	Jessyca_West	9/14/2016 23:47
90	Esmeralda.Mraz57	3/3/2017 11:52
91	Bethany20	6/3/2016 23:31

These are the users who are inactive and have never posted a single photo on Instagram.

3. **Contest Winner Declaration:** The team has organized a contest where the user with the most likes on a single photo win.

user_id int	username varchar	photo_id int	Like_count bigint
52	Zack_Kemmer93	145	48

This the information related to the person who have maximum number of likes on a single photo.

- 4. Hashtag Research:** A partner brand wants to know the most popular hashtags to use in their posts to reach the most people.

Your Task: Identify and suggest the top five most commonly used hashtags on the platform.

Q	tag_name varchar	count(tag_id) bigint
1	smile	59
2	beach	42
3	party	39
4	fun	38
5	concert	24

These are the top 5 most commonly used hashtags on Instagram.

- 5. Ad Campaign Launch:** The team wants to know the best day of the week to launch ads.

Q	DAYNAME(created_at) varchar	cnt bigint
1	Thursday	16
2	Sunday	16
3	Friday	15
4	Tuesday	14
5	Monday	14
6	Wednesday	13
7	Saturday	12

These are the day of the week when most users register on Instagram.

## B) Investor Metrics:

1. **User Engagement:** Investors want to know if users are still active and posting on Instagram or if they are making fewer posts.

user_count bigint	photos_count bigint	AveragePosts newdecimal
283	257	0.9081

Average number of posts per user on Instagram. Also, the total number of photos on Instagram divided by the total number of users.

2. **Bots & Fake Accounts:** Investors want to know if the platform is crowded with fake and dummy accounts.

user_id int	username varchar
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
91	Bethany20

These are the users (potential bots) who have liked every single photo on the site, as this is not typically possible for a normal user.

## **RESULT**

These insights have helped me to take eliminate the various anomalies in the database. It has helped me to take wise decision and find the valuable customers. We can further share the insights within the customers to increase the competition.