

# INSTAGRAM USER ANALYSIS



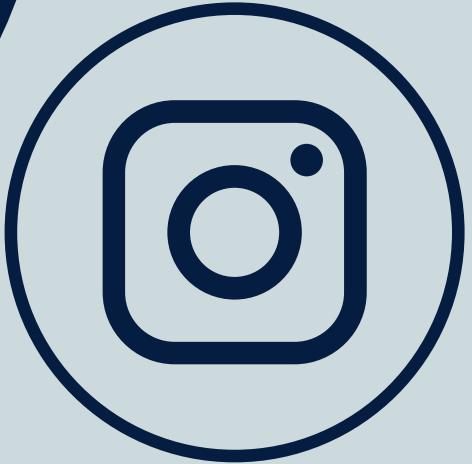
# TABLE OF CONTENTS

1. Objective
2. Introduction to Instagram
3. Approach
4. Tech Stack Used
5. Marketing Insights
6. Investor Metric
7. Result



# OBJECTIVE

- To analyze and interpret user engagement, hashtags, and trends to provide actionable insights for enhancing engagement, optimizing content strategy, and driving effective marketing campaigns.
- The aim is to uncover key metrics for user engagement, identify existence of fake bots, and develop strategies that maximize the overall impact of Instagram presence by leveraging data-driven analysis.



# INSTAGRAM

- Instagram is a popular social media platform that was launched in 2010.
- Initially designed as a photo-sharing app, it has grown exponentially and now offers various features for users to share photos, videos, and stories.
- Instagram has over 1 billion monthly active users, making it a powerful platform for businesses to reach and engage with their target audience.

# APPROACH

01

## Database Creation

Run the DDL & DML statements in SQL developer, to create a database containing all the data necessary for the project.

03

## Analysis

Gaining an understanding of what the data represents. Presenting it in a user friendly, easy to understand format to further help decision makers

02

## Deriving Insights

Using SQL concepts to derive insights from the database according to the requirements of marketing team and investors



# TECH STACKS USED

Oracle Database -  
WINDOWS.X64\_193000\_d  
b\_home



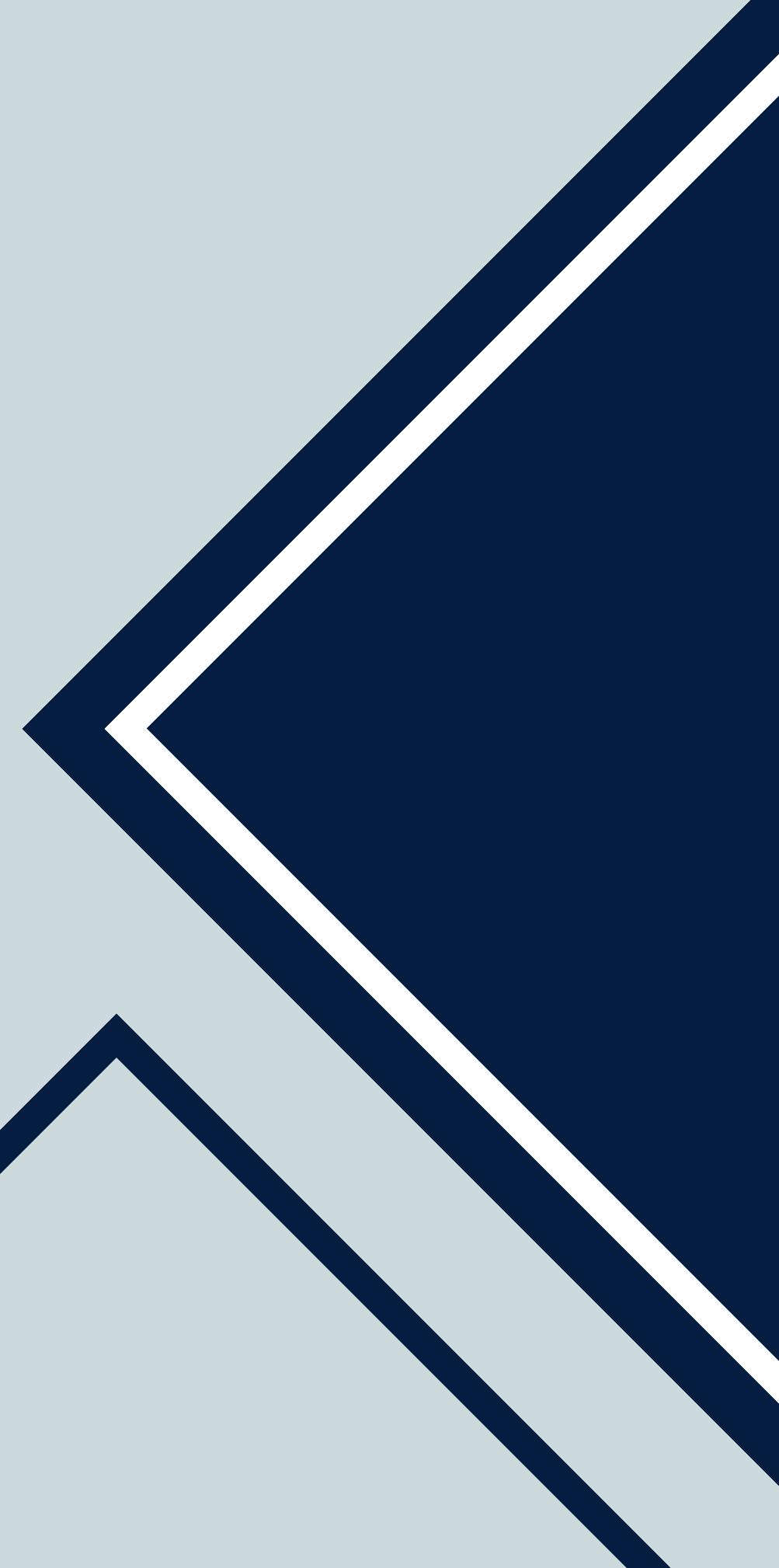
SQL Developer - 23.1.0



Mode.com



# MARKETING INSIGHTS



# MARKETING INSIGHTS

1: REWARDING MOST LOYAL USERS: PEOPLE WHO HAVE BEEN USING THE PLATFORM FOR THE LONGEST TIME.

```
SELECT USER_ID,  
       USERNAME,  
       CREATED_AT  
FROM  
  (SELECT *  
   FROM USERS  
   ORDER BY  
     CREATED_AT ASC)  
WHERE  
  ROWNUM<=5;
```

	User ID	Username	Created At
1	80	Darby_Herzog	06-MAY-16 12.14.21.191000000 AM
2	67	Emilio_Bernier52	06-MAY-16 01.04.29.960000000 PM
3	63	Elenor88	08-MAY-16 01.30.40.677000000 AM
4	95	Nicole71	09-MAY-16 05.30.22.371000000 PM
5	38	Jordyn.Jacobson2	14-MAY-16 07.56.25.835000000 AM

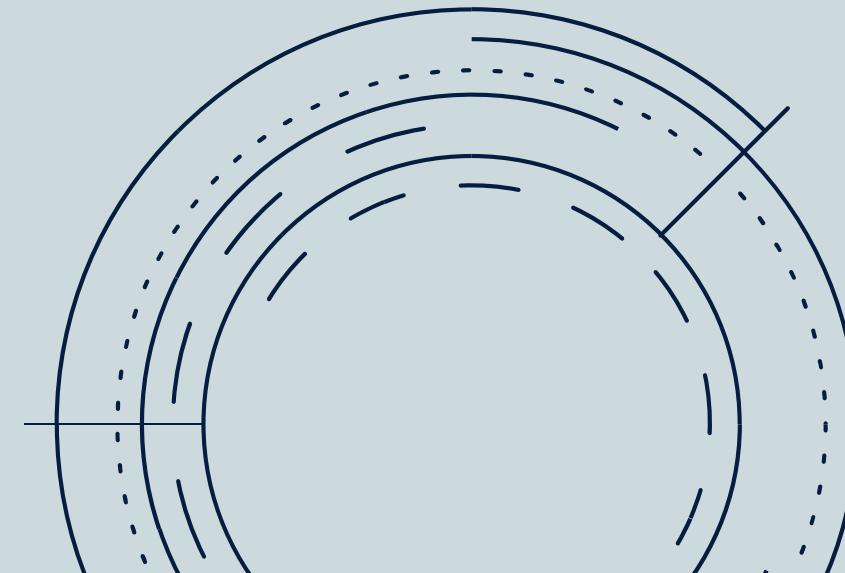
The image shows the IDs and usernames of the 5 oldest users of the Instagram.

## 2:REMIND INACTIVE USERS TO START POSTING: BY SENDING THEM PROMOTIONAL EMAILS TO POST THEIR 1ST PHOTO.

```
SELECT U.USERNAME USERNAME,  
U.USER_ID USER_ID,  
count(P.PHOTO_ID) NO_OF_PHOTO  
FROM  
USERS U  
LEFT JOIN PHOTOS P ON U.USER_ID = P.USER_ID  
GROUP BY U.USERNAME,U.USER_ID  
HAVING count(P.PHOTO_ID) = 0  
ORDER BY U.USER_ID;
```

The marketing team can send promotional emails to the users who haven't posted any photos yet.

- • • • • • • • •
- • • • • • • • •
- • • • • • • • •



USERNAME	USER_ID	PHOTO
Aniya_Hackett	5	0
Kassandra_Homenick	7	0
Jaclyn81	14	0
Rocio33	21	0
Maxwell.Halvorson	24	0
Tierra.Trantow	25	0
Pearl7	34	0
Ollie_Ledner37	36	0
Mckenna17	41	0
David.Osinski47	45	0
Morgan.Kassulke	49	0
Linnea59	53	0
Duane60	54	0
Julien_Schmidt	57	0
Mike.Auer39	66	0
Franco_Keebler64	68	0
Nia_Haag	71	0
Hulda.Macejkovic	74	0
Leslie67	75	0
Janelle.Nikolaus81	76	0
Darby_Herzog	80	0
Esther.Zulauf61	81	0
Bartholome.Bernhard	83	0
Jessyca_West	89	0
Esmeralda.Mraz57	90	0
Bethany20	91	0

3:DECLARING CONTEST WINNER: THE TEAM STARTED A CONTEST AND THE USER WHO GETS THE MOST LIKES ON A SINGLE PHOTO  
WILL WIN THE CONTEST NOW THEY WISH TO DECLARE THE WINNER.

```
SELECT
U.USERNAME,
U.USER_ID,
B.LIKES,
P.PHOTO_ID
FROM USERS U,PHOTOS P,
(SELECT LIKES,PHOTO_ID
FROM (SELECT COUNT(*) AS LIKES,PHOTO_ID
      FROM LIKES GROUP BY PHOTO_ID
      ORDER BY LIKES DESC)
      WHERE ROWNUM<=1) B
WHERE P.PHOTO_ID = B.PHOTO_ID
AND U.USER_ID = P.USER_ID ;
```

	USERNAME	USER_ID	LIKES	PHOTO_ID
1	Zack_Kemmer93	52	48	145

The user Zack\_Kemmer93 is the winner of the contest.

#### 4:HASHTAG RESEARCHING: A PARTNER BRAND WANTS TO KNOW, WHICH HASHTAGS TO USE IN THE POST TO REACH THE MOST PEOPLE ON THE PLATFORM.

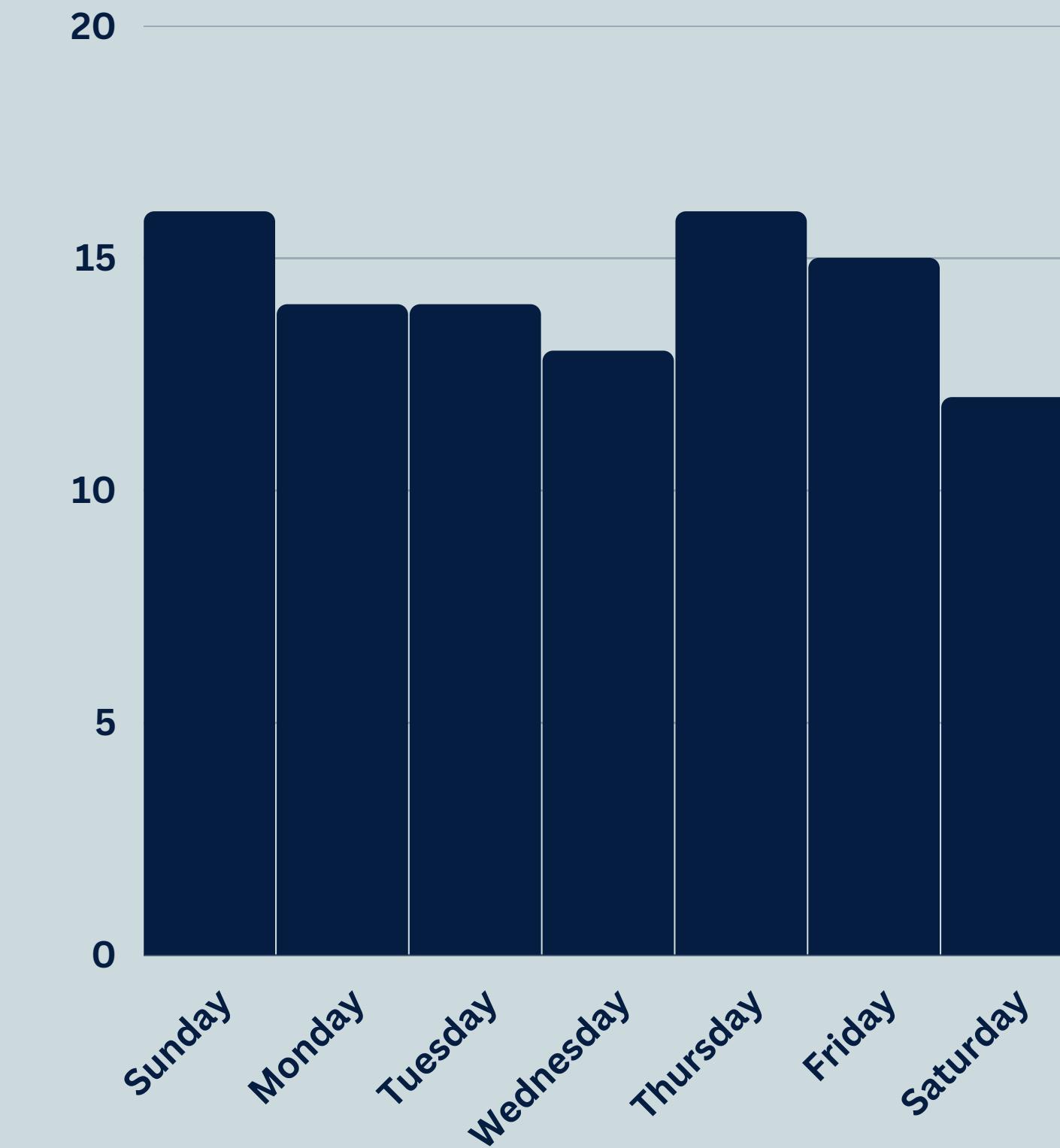
```
SELECT  
T.TAG_NAME,  
B.PHOTO_ID_COUNT  
FROM TAGS T,  
(SELECT * FROM  
(SELECT COUNT(*) AS PHOTO_ID_COUNT,  
TAG_ID  
FROM PHOTO_TAGS GROUP BY TAG_ID  
ORDER BY PHOTO_ID_COUNT  
DESC)WHERE ROWNUM<=5) B  
WHERE B.TAG_ID = T.TAGS_ID;
```



## 5:LAUNCH AD CAMPAIGN: THE TEAM WANTS TO KNOW, WHICH DAY WOULD BE THE BEST DAY TO LAUNCH ADS.

```
SELECT  
COUNT(*) COUNT_DAYOFWEEK,  
DAYOFWEEK  
FROM (  
SELECT TO_CHAR(T.created_at,  
'DAY') DAYOFWEEK,  
CREATED_AT FROM USERS T)  
GROUP BY DAYOFWEEK  
ORDER BY COUNT_DAYOFWEEK  
DESC;
```

COUNT_DAYOFWEEK	DAYOFWEEK
16	SUNDAY
16	THURSDAY
15	FRIDAY
14	TUESDAY
14	MONDAY
13	WEDNESDAY
12	SATURDAY



# INVESTOR METRIC

# USER ENGAGEMENT: ARE USERS STILL AS ACTIVE AND POST ON INSTAGRAM OR THEY ARE MAKING FEWER POSTS

```
SELECT
B.ID/B.COUNT_ID AVERAGE_USER_POSTS
B.ID/(SELECT COUNT(U.USER_ID) FROM
USERS U) USER_POSTS
FROM (
SELECT COUNT(P.PHOTO_ID) ID,
COUNT(DISTINCT(P.USER_ID)) COUNT_ID
FROM PHOTOS P )B;
```

# BOTS & FAKE ACCOUNTS: THE INVESTORS WANT TO KNOW IF THE PLATFORM IS CROWDED WITH FAKE AND DUMMY ACCOUNTS.

```
SELECT USER_ID,USERNAME  
FROM USERS  
WHERE USER_ID IN  
(SELECT USER_ID  
FROM LIKES  
GROUP BY USER_ID  
HAVING COUNT(USER_ID)  
= (SELECT COUNT(USER_ID) FROM  
PHOTOS))
```

• • • • • • • •

	USER_ID	USERNAME
1	5	Aniya_Hackett
2	14	Jaclyn81
3	21	Rocio33
4	24	Maxwell.Halvorson
5	36	Ollie_Ledner37
6	41	Mckenna17
7	54	Duane60
8	57	Julien_Schmidt
9	66	Mike.Auer39
10	71	Nia_Haag
11	75	Leslie67
12	76	Janelle.Nikolaus81
13	91	Bethany20

# RESULT

The project helped in learning data analysis using SQL queries to extract valuable information.

Through the analysis we were able to determine the following results:

- 1) Using the analysis the marketing team can reward the most loyal customer, remind the inactive users to start posting.
- 2) By increasing user engagement and removing the fake bots the company can enhance the user experience.

# THANK YOU