NAME : ARIN KUMAR DATE : 15/01/2023

#### PROJECT-2

#### **INSTAGRAM USER ANALYTICS**

## **Project Description:**

This project is about providing insights on user engagement and behavior on Instagram for the marketing and investor teams. The project will involve analyzing data from a provided database using SQL commands to answer specific questions related to user loyalty, inactive users, contest winners, hashtags, and ad campaign scheduling.

## **Approach:**

I will begin by creating the database and running SQL commands to extract the necessary data. I will then analyze the data to answer the questions posed by the marketing and investor teams, and present my findings in a report.

## **Tech-Stack Used:**

I will be using SQL and a relational database management system to perform the analysis and extract the data needed to answer the questions. The version of SQL and RDBMS used will depend on the specific database provided.

## **Insights:**

Through this project, I will gain a deeper understanding of user behavior and engagement on Instagram, and be able to provide valuable insights to the marketing and investor teams. These insights can be used to improve the overall user experience and drive growth for the platform.

- **A) Marketing:** The marketing team wants to launch some campaigns, and they need your help with the following
  - 1. **Rewarding Most Loyal Users:** People who have been using the platform for the longest time.

|             | id   | username         | created_at          |
|-------------|------|------------------|---------------------|
| <b>&gt;</b> | 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                |

Darby\_Herzog is the oldest user of Instagram who has created the account at 06-05-2016 at 12:14 am.

2. **Remind Inactive Users to Start Posting:** By sending them promotional emails to post their 1st photo.

26 users have created their accounts but has not posted yet on Instagram.

|          | id | username           | created_at          |
|----------|----|--------------------|---------------------|
| <b>)</b> | 5  | Aniya_Hackett      | 2016-12-07 01:04:39 |
|          | 7  | Kasandra_Homenick  | 2016-12-12 06:50:08 |
|          | 14 | Jadyn81            | 2017-02-06 23:29:16 |
|          | 21 | Rocio33            | 2017-01-23 11:51:15 |
|          | 24 | Maxwell.Halvorson  | 2017-04-18 02:32:44 |
|          | 25 | Tierra.Trantow     | 2016-10-03 12:49:21 |
|          | 34 | Pearl7             | 2016-07-08 21:42:01 |
|          | 36 | Ollie_Ledner37     | 2016-08-04 15:42:20 |
|          | 41 | Mckenna17          | 2016-07-17 17:25:45 |
|          | 45 | David.Osinski47    | 2017-02-05 21:23:37 |
|          | 49 | Morgan.Kassulke    | 2016-10-30 12:42:31 |
|          | 53 | Linnea59           | 2017-02-07 07:49:34 |
|          | 54 | Duane60            | 2016-12-21 04:43:38 |
|          | 57 | Julien_Schmidt     | 2017-02-02 23:12:48 |
|          | 66 | Mike. Auer 39      | 2016-07-01 17:36:15 |
|          | 68 | Franco_Keebler64   | 2016-11-13 20:09:27 |
|          | 71 | Nia_Haag           | 2016-05-14 15:38:50 |
|          | 74 | Hulda.Macejkovic   | 2017-01-25 17:17:28 |
|          | 75 | Leslie67           | 2016-09-21 05:14:01 |
|          | 76 | Janelle.Nikolaus81 | 2016-07-21 09:26:09 |
|          |    |                    |                     |

| 80 | Darby_Herzog        | 2016-05-06 00:14:21 |
|----|---------------------|---------------------|
| 81 | Esther.Zulauf61     | 2017-01-14 17:02:34 |
| 83 | Bartholome.Bernhard | 2016-11-06 02:31:23 |
| 89 | Jessyca_West        | 2016-09-14 23:47:05 |
| 90 | Esmeralda.Mraz57    | 2017-03-03 11:52:27 |
| 91 | Bethany20           | 2016-06-03 23:31:53 |

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.

|   | username      | id | likes_count |
|---|---------------|----|-------------|
| • | Zack_Kemmer93 | 52 | 48          |

The username Zack\_Kemmer93 with id 52 is the contest winner with 48 likes.

4. **Hashtag Researching:** A partner brand wants to know, which hashtags to use in the post to reach the most people on the platform.

|   | tag_name | tag_count |
|---|----------|-----------|
| • | smile    | 59        |
|   | beach    | 42        |
|   | party    | 39        |
|   | fun      | 38        |
|   | concert  | 24        |

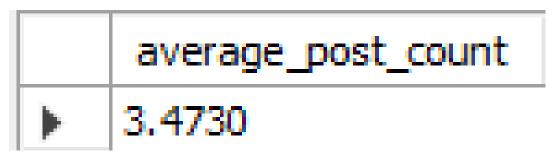
The tag\_name with smile has the maximum tag counts with 59 tags.

5. **Launch AD Campaign:** The team wants to know, which day would be the best day to launch ADs.

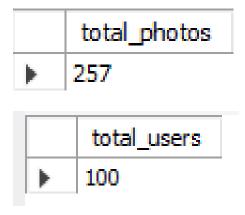


Thursday is the best day to launch ADS as most users register on this day.

- **B) 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: Are users still as active and post on Instagram or they are making fewer posts



A user on an average posts 3.473 posts on Instagram.





The average photos per user is 2.57

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

|          | id   | username           | created_at          |
|----------|------|--------------------|---------------------|
| <b>—</b> | 5    | Aniya_Hackett      | 2016-12-07 01:04:39 |
|          | 14   | Jaclyn81           | 2017-02-06 23:29:16 |
|          | 21   | Rocio33            | 2017-01-23 11:51:15 |
|          | 24   | Maxwell.Halvorson  | 2017-04-18 02:32:44 |
|          | 36   | Ollie_Ledner37     | 2016-08-04 15:42:20 |
|          | 41   | Mckenna 17         | 2016-07-17 17:25:45 |
|          | 54   | Duane60            | 2016-12-21 04:43:38 |
|          |      |                    |                     |
|          | 57   | Julien_Schmidt     | 2017-02-02 23:12:48 |
|          | 66   | Mike.Auer39        | 2016-07-01 17:36:15 |
|          | 71   | Nia_Haag           | 2016-05-14 15:38:50 |
|          | 75   | Leslie67           | 2016-09-21 05:14:01 |
|          | 76   | Janelle.Nikolaus81 | 2016-07-21 09:26:09 |
|          | 91   | Bethany20          | 2016-06-03 23:31:53 |
| ale.     | NULL | NULL               | NULL                |

There are a total of 13 fake and dummy accounts.

## **Result:**

By completing this project, I will have provided detailed insights on user engagement and behavior on Instagram for the marketing and investor teams. These insights can be used to make informed decisions related to product development, marketing campaigns, and overall performance of the platform.