Instagram User Analytics

Project Description –

This project aims at tracking how the users of Instagram engage and interact with Instagram app/website in order to derive insights for marketing and development of the product (Instagram app/site).
As a team member of the product team of Instagram, it is my duty to carefully analyse and bring out meaningful insights from user interaction details.
This project focuses on marketing and investor metrics.

Approach –

The marketing team has decided to launch campaigns for which the following is necessary:

1. Rewarding most loyal users
2. Remind inactive users to start posting
3. Declaring contest winner
4. Hashtag researching
5. Launch AD campaign

Moreover, finding User Engagement and Bots & Fake accounts will help the investors to assess the app/website.
For finding all these details, I have used Structured Query Language (SQL) which helps in manipulating and extracting data/information.

Tech-Stack used –

I have used **MySQL Workbench Version 8.0.22** and **MS Excel** (for charts) for this project. MySQL Workbench is a great multipurpose GUI tool for MySQL which facilitates creating, designing and building databases. It also makes it easy to visualize the results of the queries and to import and export data into other software packages.

Insights –

I have derived the following information/insights using MySQL:

A. Marketing –
   1. Rewarding Most Loyal Users:
      To reward the most loyal users we need to find the people who have been using Instagram for a very long time.
      The five oldest Instagram users who are to be rewarded are:

id	username	created_at
80	Darby_Herzog	06-05-2016 00:14
67	Emilio_Bernier52	06-05-2016 13:04
63	Elenor88	08-05-2016 01:30
95	Nicole71	09-05-2016 17:30
38	Jordyn.Jacobson2	14-05-2016 07:56

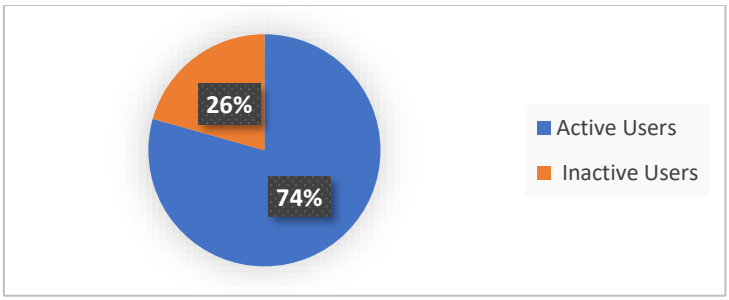
Rewarding the oldest users will encourage them to keep using Instagram like before. Moreover, those rewarded users will be very helpful for the promotion of the app/website.

2. Remind Inactive Users to Start Posting:

user_id	username
5	Aniya_Hackett
7	Kasandra_Homenick
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
66	Mike.Auer39
68	Franco_Keebler64
71	Nia_Haag
74	Hulda.Macejkovic
75	Leslie67
76	Janelle.Nikolaus81
80	Darby_Herzog
81	Esther.Zulauf61
83	Bartholome.Bernhard
89	Jessyca_West
90	Esmeralda.Mraz57
91	Bethany20

This is the list of all inactive users i.e those users who have never posted a single photo on Instagram.

There are 26 users (out of 100) who haven't posted a single photo on Instagram.



⇨ 26% of the users are inactive on Instagram. If this continues, then it would be difficult for Instagram to gain popularity.

These users need to be reminded of their inactivity on Instagram.
To do so, promotional emails can be sent to these people informing and encouraging them to post their first photo on Instagram.

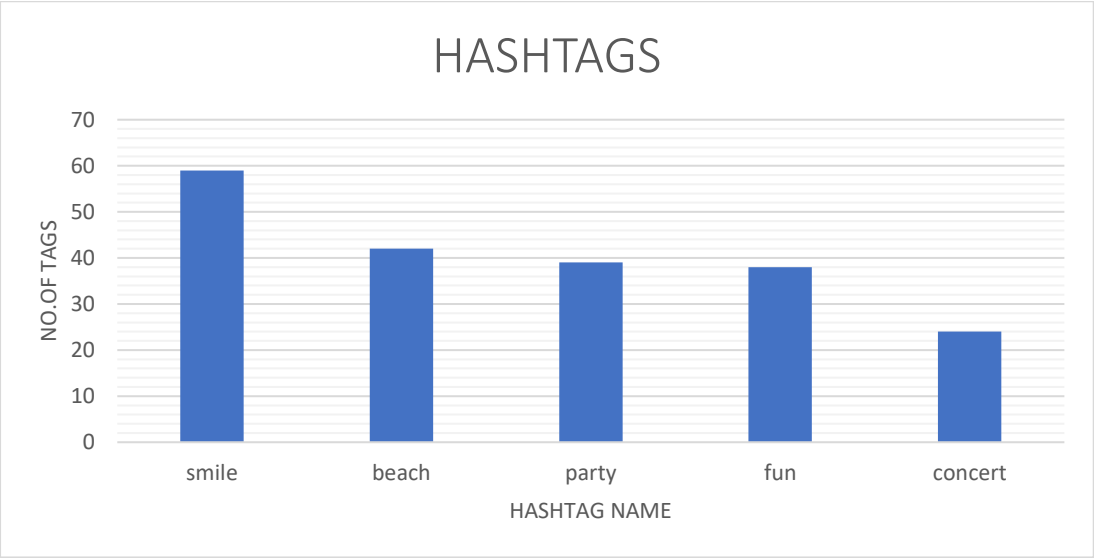
3. Declaring Contest Winner:

The team started a contest and the user who gets the greatest number of likes on a single photo wins.
According to the derived information, a user with username Zack_Kemmer93 has received the maximum likes i.e 48 likes for his photo posted on Instagram.

username	id	image_url	total_likes
Zack_Kemmer93	145	https://jarret.name	48

⇨ Zack_Kemmer93 has won this contest.

4. Hashtag Researching:



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

The top 5 hashtags being used by most people are given in the table.
A partner brand can use these top 5 hashtags to reach most of the users on Instagram.

5. Launch AD Campaign:

To schedule an AD campaign, we first need to know to on which day do most users register on Instagram.

day	total_regs
Thursday	16
Sunday	16
Friday	15

Most of the users register on Thursday and Sunday.

⇨ So, launching an AD campaign on these days would be more s successful than on other days of the week.

B. Investor Metrics –
   1. User Engagement:

avg
2.57

Total number of photos on Instagram / Total number of users = 2.57
⇨ On an average, a user posts approximately 3 times on Instagram.

2. Bots & Fake Accounts:

username	num_likes
Aniya_Hackett	257
Jaclyn81	257
Rocio33	257
Maxwell.Halvorson	257
Ollie_Ledner37	257
Mckenna17	257
Duane60	257
Julien_Schmidt	257
Mike.Auer39	257
Nia_Haag	257
Leslie67	257
Janelle.Nikolaus81	257
Bethany20	257

13 users have liked all photos posted on Instagram.

It is not possible for a user to like all the photos posted.

This means that 13% of the users is fake i.e those are bots and not real users.

Result –

User analysis is very helpful in promoting and enhancing the growth of a particular product / service.

This project has helped me learn how to analyse a given data based on various purposes.
I could understand the behaviour and patterns of users on Instagram which basically decides the success/downfall and usage of the product (Instagram app/website).