



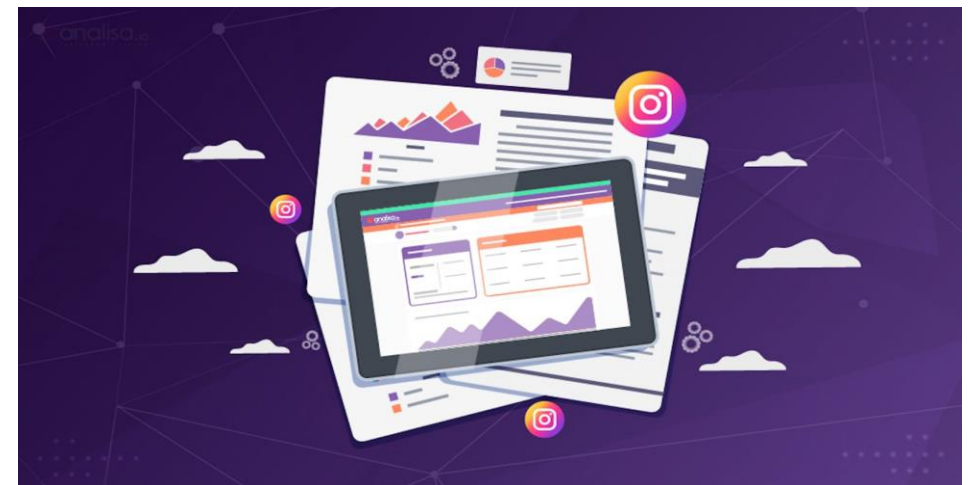
INSTAGRAM USER ANALYTICS USING MYSQL

Project report



Project Description

- ▶ This project is about conducting user analytics on Instagram users with MySQL to analyze their engagement and interaction with the app
- ▶ I am playing the role of a Data Analyst and my goal for this project is to find out some insights for the Marketing team and the investors to help them make the right decisions.
- ▶ I have used the provided dataset and the queries for developing the database and tried to find the following 7 insights -
 1. Who are the 5 oldest users of our Instagram dataset?
 2. Which users never posted a single photo?
 3. Which user got the most likes on a single photo?
 4. Which 5 hashtags are the most commonly used?
 5. On which day of the week, most users are registered?
 6. How many times does a user post on Instagram on average?
 7. Have any users liked every single photo? Are there any bot users?



Approach

- ▶ Firstly, I have read the project descriptions and all 7 questions a few times to get a clear idea about what the stakeholders (Marketing team and investors) want.
- ▶ For each of the given problem statements, I tried to solve those step by step by breaking the problem into small parts if needed and writing respective SQL queries for those, which led to building the final script. Its easier to understand with an example –
 - ✓ Let's say, I am trying to find the user who got the most liked in a single photo (Question 3). Using the group by, aggregated function, order by, and a limit clause, I first found out the photo id which has the highest likes.
 - ✓ Using Common table expression (CTE) I run subqueries to find the user id who has posted that particular photo and fetched the username as well.



Tech-Stack Used

MySQL
8.0.33

- It is one of the most commonly used relational database management systems in the industry
- It is easy to use, flexible and fast tool to do a quick data analysis, suitable for our dataset.

MySQL
Workbench
8.0 CE

- It is also a commonly used tool for data analysis which allows us to connect from a wide range of data sources including csv, sql files etc.
- I have used this as a SQL script editor due to its user-friendliness and flexibility.



Insights and Suggestions

Insight 1

The five oldest users of Instagram are – Darby, Emilo, Elenor, Nicole & Jordyn. They started their journey from June 2016.

- It is suggested to the Marketing team to prepare some reward programs for these loyal users.
- The team can feature these users in Instagram's official page to provide them more recognition
- Access to backstage during any Instagram event can be given. Also give them a chance to meet popular Instagram influencers.

Insight 2

There are 26 users who have never posted a single photo.

- Apart from promotional emails as decided by the Marketing team, it is recommended to conduct some photo contests with exciting prizes to encourage them (for ex – 'Best Debut photo' Contest).
- Feature personalized content and Inspiration quotes to share photos of their experiences.



Contd...

6

Insight 3

Zack Kemmer is the winner of the most-liked photo contest

- The marketing team can feature Zack on Instagram's Official page
- A Swag Bag including Instagram branded merchandize can be considered as well.

Insight 4

The top 5 most used hashtags are – #smile, #beach, #party, #fun & #concert

- It is recommended to add these hashtags within search suggestions to help users more views.
- A recurring email can be generated for the Partner brand to inform them the 5 most used hashtags every month.

Insight 5

Weekday 3 and 6, i.e Thursday and Sunday have the most users registered on.

- I think the Marketing Team should consider Sundays mostly to launch Ad Campaigns as users generally more active on holidays.
- Also from the analysis, I found that users are more active on 2nds half (14pm-2am). Schedule campaigns accordingly

Contd...

Insight 6

Users post 3-4 times on an average. Total no. of posts on Instagram is 257 and Total no. of users is 100.

- I think the average number of post per user is quite low and Instagram need to increase user engagement to attract Investors
- It is suggested to create a specific hashtag and challenge the users to post photos regarding a particular theme. Consider attractive rewards for the winners.
- Also, provide the user some tips and inspiration regarding photography, and editing to reduce creative blocks among the users and to encourage them to post unique photos.

Insight 7

It is found that 13 users have liked every photo on Instagram, can be considered as both users.

- It is highly important to block the bot accounts to increase authenticity of the platform and attract the investors.
- It is suggested to focus on developing more robust Machine Learning Algorithms to prevent the bots to be registered.
- Also Instagram can reduce API access to stakeholders to reduce the chances of bot being registered.



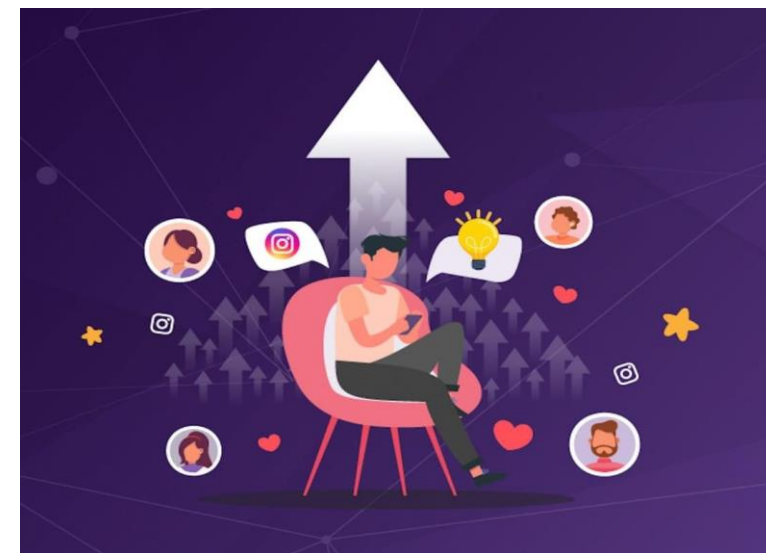
Result

From this project, I have got a proper understanding of the role of a Data Analyst, especially within a product-based company

I got a clear understanding of how SQL is used to analyze a dataset by fetching a specific set of data for some problem statements

I understood the entire cycle of Data analyst's job role which includes understanding the problem statement, the dataset, the need for critical thinking, and how insights can be generated from SQL results.

It also helped me to improve my problem-solving skills and business understanding.



THANK YOU

