**Instagram User Analytics**

**Project Description**

As a data analyst working with the product team at Instagram, I am tasked with analysing user interactions and engagement with the Instagram app to provide valuable insights that can help the business grow.

The user analysis involves tracking how users engage with a digital product, and the insights derived from this analysis will be used by various teams within the business.

The marketing team might use these insights to launch a new campaign, the product team might use them to decide on new features to build, and the development team might use them to improve the overall user experience.

**Data Sources**

The Sample Database and Data can be created using the ‘Instagram Analytics Sample Data Creation.sql’ file.

**Approach**

* The initial step is the creation of the database & tables, along with importing the data into the tables. This is achieved by running the DDL & DML SQL queries provided in MySQL through the MySQL Workbench.
* After the previous step, analysis on the data was made and insights were generated from the database by running SQL queries in MySQL Workbench.

**Tech-Stack Used**

The Software and Version Utilized for the project:

MySQL Workbench 8.0 CE - Version 8.0.34 build 3263449 CE (64 bits) Community

* MySQL has a feature rich RDBMS that is abundant with various functions. This means that which means you can use it to perform various data manipulation and analysis tasks such as data aggregation, table joining, data transformation, data visualization, etc.
* It is also fast and scalable, allowing you to can handle large amounts of data and perform complex queries efficiently. You can also use various indexing and partitioning techniques to optimize your data storage and retrieval.
* MySQL is free and open source, which means you don’t have to pay for a license or subscription to use it. You can also customize it to suit your needs and preferences.
* MySQL supports multiple languages and platforms, which means you can use it with different programming languages such as Python, Java, PHP, etc. and different operating systems such as Windows, Linux, macOS, etc. You can also use various connectors and drivers to access MySQL from different applications and tools.

**Insights**

The questions that needed answering are below:

**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.
2. Inactive User Engagement: The team wants to encourage inactive users to start posting by sending them promotional emails.
3. Contest Winner Declaration: The team has organized a contest where the user with the most likes on a single photo wins.
4. Hashtag Research: A partner brand wants to know the most popular hashtags to use in their posts to reach the most people.
5. Ad Campaign Launch: The team wants to know the best day of the week to launch ads.

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

For the SQL Statements, you can check the ‘SQL Statements.sql’ file or view the SQL Statements and Output in the ‘Instagram User Analytics.ppt’ file.

**Project Impact**

This was a learning project and it allowed me to learn the fundamentals of SQL and its working. It has also shown me how to use it to extract various insights for data analysis.

The analysis from the data will help the product manager and the team make informed decisions about the future direction of the Instagram App.