TECHZONE ACADEMY

Instagram User Analytics – Project Report

1. Project Overview

This project was conducted as part of the **TechZone Academy Institute Program** with the goal of strengthening practical skills in **SQL and Data Analytics**. The task focused on analyzing Instagram user data to extract meaningful insights related to user behavior, engagement, and platform activity using **SQL queries**

The project simulates real-world data analysis requirements for both **marketing teams** and **investors**, helping develop job-ready analytical skills.

2. Project Objective

The main objective of this project is to:

- Analyze Instagram user data using SQL queries
- Monitor **user engagement, trends, and activity**
- Identify business insights for **marketing and investment decisions**
- Present the findings in an **easy-to-understand dashboard/report format**

3. Learning Outcomes

By completing this project, the following skills were gained:

- Writing effective SQL queries on large datasets
- Analyzing user activity and engagement patterns
- Identifying trends in social media behavior
- Creating summaries and dashboards from SQL outputs
- Performing advanced filtering and aggregation in SQL

4. Marketing Analysis Tasks & Purpose

These tasks were designed to help the **marketing team** take data-driven decisions

➢ Loyal User Reward

Objective:
Identify the **five oldest users** on Instagram to reward their loyalty.

Business Value:
Helps increase user retention and brand loyalty.

➢ Inactive User Engagement

Objective:
Identify users who **never posted a single photo**.

Business Value:
Marketing team can target these users with emails and promotions to increase engagement.

➢ Contest Winner Declaration

Objective:
Find the **user whose photo received the highest number of likes**.

Business Value:
Helps in identifying high-impact users for promotions and collaborations.

➢ Hashtag Research

Objective:
Identify the **top 5 most used hashtags**.

Business Value:
Helps brands and partners choose trending hashtags for better reach.

➢ Best Day for Ad Campaign

Objective:
Find the **day of the week with the most registrations**.

Business Value:
Helps in selecting the most effective day to launch marketing campaigns.

5. Investor Metrics & Insights

These tasks were designed to support **investor analysis** in understanding platform health

Techzone Academy Instagram Anal...

➢ User Engagement Level

Objective:
Calculate:

- Average number of posts per user
- Total photos ÷ Total users

Business Value:
Shows whether users are:

- Actively posting
- Losing interest
- Or increasing activity

This directly reflects the platform's growth potential.

➢ Bots & Fake Account Detection

Objective:
Detect users who liked every single photo on the platform.

Business Value:
Accounts with such behavior are likely to be **bots or fake users**.
Removing them ensures:

- Better engagement accuracy
- Cleaner dataset
- Realistic performance metrics

This is very important for investor trust.

6. Tools & Technologies Used

- MYSQL Workbeach
- Database provided by TechZone Academy
- Power BI / Dashboard tool for visualization (if applied)
- MS Word / PowerPoint for reporting

7. Project Workflow

1. Created the database using the provided SQL commands
2. Cleaned and explored the data structure
3. Wrote SQL queries for each business question
4. Validated results logically
5. Summarized findings into insights
6. Designed a simple dashboard / report

All steps were performed as instructed in the project guidelines

8. Conclusion

This project successfully demonstrated how SQL can be used to analyze real-world social media data and support both marketing strategies and investor decisions.

It helped in understanding:

- User behavior patterns
- Platform growth indicators
- Content and hashtag trends
- Presence of inactive and fake accounts

Overall, this project greatly improved my **SQL, analytical thinking, and business interpretation skills** and provided hands-on experience with real-world datasets.