

Instagram User Analytics

SQL Fundamentals

Difficulty Level:

Description:

User analysis is the process by which we track how users engage and interact with our digital product (software or mobile application) in an attempt to derive business insights for marketing, product & development teams.

These insights are then used by teams across the business to launch a new marketing campaign, decide on features to build for an app, track the success of the app by measuring user engagement and improve the experience altogether while helping the business grow.

You are working with the product team of Instagram and the product manager has asked you to provide insights on the questions asked by the management team.

You are required to provide a detailed report answering the questions below :

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.
Your Task: Find the 5 oldest users of the Instagram from the database provided
- 2. Remind Inactive Users to Start Posting:** By sending them promotional emails to post their 1st photo.
Your Task: Find the users who have never posted a single photo on Instagram
- 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.
Your Task: Identify the winner of the contest and provide their details to the team
- 4. Hashtag Researching:** A partner brand wants to know, which hashtags to use in the post to reach the most people on the platform.
Your Task: Identify and suggest the top 5 most commonly used hashtags on the platform
- 5. Launch AD Campaign:** The team wants to know, which day would be the best day to launch ADs.
Your Task: What day of the week do most users register on? Provide insights on when to schedule an ad campaign

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

- 1. User Engagement:** Are users still as active and post on Instagram or they are making fewer posts

Your Task: Provide how many times does average user posts on Instagram. Also, provide the total number of photos on Instagram/total number of users

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

Your Task: Provide data on users (bots) who have liked every single photo on the site (since any normal user would not be able to do this).

How to do this Project?

1. **Create a Database:** You are supposed to run the following commands for creating the database to work on (the database has been provided in the attachments)
2. **Perform Analysis:** Use SQL to perform your entire analysis answering the questions asked above
3. **Submit a Report:** Make a report (PDF/PPT) to be presented to the leadership team. The report should/can contain the following details:

Project Description

Give a brief about your project description i.e. what is this project about, how are you going to handle the things and what are the things that you are going to find out through the project.

Approach

Write a short paragraph about your approach towards the project and how you have executed it.

Tech-Stack Used

Do mention the software and the version used while making the project (For Eg. Jupyter Notebook, etc) and mention the purpose of using it.

Insights

Jot down the insights and the knowledge you gained while making the project. You need to write that what do you infer about the things. Make sure its brief and up to the point only. For Eg. If you got a graph then what do you understand by the graph, what changes can you make or what can you derive from the graph.

Result

Mention what have you achieved while making the project and how do you think it has helped you.

Drive Link

Save your file as a “.pdf” file and upload it to your Google Drive. Mention the sharable link (**link visibility should be set to public**) in your pdf file which you will be uploading. Do not directly upload your project.