

Operation Analytics and Investigating

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Description

Operation Analytics is the analysis done for the complete end to end operations of a company. With the help of this, the company then finds the areas on which it must improve upon. You work closely with the ops team, support team, marketing team, etc and help them derive insights out of the data they collect.

Being one of the most important parts of a company, this kind of analysis is further used to predict the overall growth or decline of a company's fortune. It means better automation, better understanding between cross-functional teams, and more effective workflows.

Investigating metric spike is also an important part of operation analytics as being a Data Analyst you must be able to understand or make other teams understand questions like- Why is there a dip in daily engagement? Why have sales taken a dip? Etc. Questions like these must be answered daily and for that its very important to investigate metric spike.



Approach

First, I started off by cloning the dataset into my device using MySQL. I then ran a series of commands to filter out data from the database according to the criteria demanded by the user.

Tech-Stack Used

- MySQL
- MySQL Work Bench
- Google Docs

Insights

Case Study 1 (Job Data)

- A. Number of jobs reviewed: Amount of jobs reviewed over time.

What I Did: Calculate the number of jobs reviewed per hour per day for November 2020?

- B. Throughput: It is the no. of events happening per second.

What I Did: Let's say the above metric is called throughput. Calculate 7 day rolling average of throughput? For throughput, do you prefer daily metric or 7-day rolling and why?

- C. Percentage share of each language: Share of each language for different contents.

What I Did: Calculate the percentage share of each language in the last 30 days?

- D. Duplicate rows: Rows that have the same value present in them.

What I Did: Let's say you see some duplicate rows in the data. How will you display duplicates from the table?

Case Study 2 (Investigating metric spike)

- A. User Engagement: To measure the activeness of a user. Measuring if the user finds quality in a product/service.
What I Did: Calculate the weekly user engagement?
- B. User Growth: Amount of users growing over time for a product.
What I Did: Calculate the user growth for product?
- C. Weekly Retention: Users getting retained weekly after signing-up for a product.
What I Did: Calculate the weekly retention of users-sign up cohort?
- D. Weekly Engagement: To measure the activeness of a user. Measuring if the user finds quality in a product/service weekly.
What I Did: Calculate the weekly engagement per device?
- E. Email Engagement: Users engaging with the email service.
What I Did: Calculate the email engagement metrics?

Resources



[Case Study-1 Dataset](#)



[Case Study-2 Dataset](#)

Result

It would have been impossible or very time consuming for an ordinary human to be able to process such large bits of information. A computer can do it within seconds with the right commands. That's why companies like Instagram hire data analysts to control the waves of data they collect every day, makes sense of it, and then draw conclusions or make predictions. This is the process of turning data into insights, and it's how analysts help businesses put all their data to good use.

The more detailed definition you learned earlier is that data analysis is the collection, transformation, and organization of data in order to draw conclusions, make predictions, and drive informed decision-making.

Data analytics can help organizations completely rethink something they do or point them in a totally new direction. For example, maybe data leads them to a new product or unique service, or maybe it helps them find a new way to deliver an incredible customer experience.