

Case Study 2: Investigating Metric Spike

Project Description:

This project aims to analyze user engagement with email campaigns by examining interactions such as emails sent, opened, and clicked. The objective is to measure the effectiveness of email campaigns, calculate engagement rates, and derive insights into user behavior. The analysis helps in optimizing future email strategies to improve engagement and conversion rates.

Approach:

1. Data Extraction:

- Retrieved email interaction data from the email_events table, containing records of emails sent, opened, and clicked.

2. Data Processing:

- Extracted relevant features such as action types and timestamps.
- Aggregated engagement metrics on a daily and weekly basis.

3. Analysis Execution:

- Measured total emails sent, opened, and clicked.

- Calculated key performance metrics like open rate and click-through rate (CTR).
- Conducted trend analysis to understand engagement over time.

Tech-Stack Used:

- **MySQL 8.0:** For managing databases and effectively executing queries.
- The **MySQL Workbench** offered an intuitive interface for creating and evaluating queries.

Insights:

- The average email open rate was 35.72%, indicating the effectiveness of subject lines and audience interest.
- The click-through rate (CTR) was 15.73%, showing how many users engaged with the content inside the emails.
- Engagement varied by day of the week, with higher open and click rates observed on specific days.
- Mobile users had higher/lower engagement compared to desktop users.

- Retargeted users showed higher/lower retention in follow-up email campaigns.


Result:

This analysis provided actionable insights into email engagement, helping in:

- Optimizing email sending times for better engagement.
- Improving email content and subject lines based on performance metrics.
- Identifying user behavior trends to refine marketing strategies.
- Enhancing segmentation strategies to target high-engagement users effectively.

Drive Link:

The full project, including SQL queries and results, can be accessed here:

 [SQL Queries _ Case Study 2_ Investigating Metric Spike.pdf](#)