

# Case Study 1: Job Data Analysis

## Project Description:

Operational analytics is a crucial process that involves analyzing a company's end-to-end operations. This analysis helps identify areas for improvement within the company. As a lead data analyst, the goal of this project is to analyze job data to derive insights that assist various departments in understanding performance trends and operational efficiencies. By leveraging SQL, we extract meaningful patterns, detect anomalies, and improve decision-making.

## Approach:

To execute the analysis, we first cleaned and structured the job data to ensure accuracy. Using advanced SQL queries, we extracted key operational metrics, including:

- Jobs reviewed per hour for each day in November 2020.
- The 7-day rolling average of throughput to smooth short-term fluctuations.
- Language share analysis over the last 30 days.
- Detection of duplicate rows to maintain data integrity.

## 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:

- Jobs reviewed per hour analysis revealed peak and low review periods, aiding in resource allocation.
- The 7-day rolling average of throughput provided a more stable measure of job processing efficiency compared to daily metrics.
- Language share analysis helped in understanding the distribution of content review across different languages, aiding in localization efforts.
- Duplicate row detection ensured data integrity and prevented misleading analytical conclusions.


## Result:

Through this project, we successfully analyzed job data to derive key

operational insights. These insights help various teams optimize processes, allocate resources efficiently, and investigate anomalies in job processing trends. The project highlights the importance of structured data analysis in improving operational decision-making.

### **Drive Link:**

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

 [SQL Queries \\_ Case Study 1\\_ Job Data Analysis.pdf](#)

**Refer to this [link](#) for Case Study 2: Investigating Metric Spike**