SQL Data Analysis Project

Insights and Solutions for IT Operations

---

1. At a glance 👀

   This project focused on analyzing IT operations data using SQL to identify problems and recommend solutions. I created four datasets that represented real-world scenarios and wrote queries to find patterns, improve efficiency, and address key issues. The goal was to understand the performance of applications and servers, manage errors effectively, and optimize resources. By the end, I gained valuable insights and made recommendations to improve operations.

2. The Problem ❓

   Several challenges were identified in this project:

   a. Some applications were generating too many error logs, which could impact stability.
   b. A few applications were using too much CPU or memory, leading to inefficiency.
   c. Response times for critical apps were increasing, showing a drop in performance.
   d. Some servers were inactive but still using resources unnecessarily.
   e. Servers in certain regions were not evenly distributed, which might lead to risks.

3. The solution 💡

   To address these problems, I analyzed the data to find trends and patterns using SQL

   .

   a. I identified the applications causing the most errors and suggested focusing on them first.
   b. I recommended optimizing apps using excessive resources to save costs.
   c. I proposed decommissioning servers that were inactive to free up resources.
   d. I suggested redistributing servers in certain regions to reduce risks and improve efficiency.

4. What I learned 🪴

   Through this project, I improved my SQL skills by working with complex queries and datasets. I also learned how to analyze data to find meaningful insights and make practical recommendations. I practiced presenting my findings in a clear way, which strengthened my communication skills. This project taught me how SQL can solve real-world problems and improve IT operations.

By: Nishtha Ballal