Service Operations Performance & Risk Analytics Report

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Tools Used: Python, MySQL, Power BI

1. Project Overview

This project focuses on analyzing service operations data to monitor open case backlog, operational risk, and resolution performance. The objective is to support management with data-driven insights for faster decision-making and escalation control.

2. Dataset Summary

1. Total Records: 30,000 customer service cases
2. Key Fields: Case ID, Department, Region, Priority, Created Date, Closed Date, SLA Days, Resolution Hours, Rating
3. Open cases contain NULL values in Closed Date and related performance fields

3. Data Cleaning & Preparation

Data cleaning was performed using Python (Pandas). Date formats were standardized, resolution days were derived, and NULL values were preserved for open cases to maintain true operational status.

4. SQL-Based Performance Analysis

1. Department-wise performance evaluation
2. Region-wise performance assessment
3. Agent performance analysis
4. Average resolution time calculation
5. Customer rating analysis

5. Power BI Dashboard & KPIs

1. Total Cases, Open Cases, Closed Cases
2. Average Resolution Days
3. Average Customer Rating
4. Open Cases Trend by Month
5. High-Risk Open Cases by Department
6. Open Cases by Department, Region, and Priority

6. Key Business Insights

1. Major backlog concentration identified across select departments
2. High-risk cases highlighted for escalation

3 Operational efficiency measured across regions
4 Customer experience tracked using ratings

7. Conclusion

This project demonstrates a complete end-to-end data analytics workflow suitable for real-world operations analytics in consulting and BPM organizations such as EXL, Genpact, and Accenture.