Call Center Analysis - Problem Statements

Introduction

This document contains problem statements derived from the **Call Center Analysis Dashboard** to guide students in analyzing agent performance, customer satisfaction, call volume trends, and service efficiency.

By working on these problems, students will:
• Gain experience in **customer service data analysis**.
• Understand the impact of **call resolution, agent efficiency, and service speed**.
• Develop insights into **customer satisfaction trends and call handling efficiency**.
• Learn to use **Power BI, Python, or SQL** to analyze operational performance.

Students are encouraged to explore the dataset, create visualizations, and provide meaningful insights based on their findings.

Call Volume and Trends Analysis

• Analyze the total number of calls received over a month.

• Identify which time of day sees the highest call volume.

• Compare the call volume trends over different months.

Agent Performance and Efficiency

• Determine which agent has handled the most and least calls.

• Analyze the average call duration per agent and its impact on efficiency.

• Compare resolution rates among agents to identify top performers.

Call Topic and Resolution Analysis

• Identify which call topics (Streaming, Payment, Technical Support, Admin, Contract-related) receive the highest number of calls.

• Determine which topics have the highest and lowest resolution rates.

• Compare average call duration across different topics.

Customer Satisfaction and Call Resolution

• Analyze the customer satisfaction rating trends.

• Identify whether longer call durations lead to higher or lower satisfaction.

• Determine if there is a correlation between issue resolution and satisfaction ratings.

Call Answer Rate and Missed Calls

• Analyze the percentage of answered vs. missed calls.

• Identify which agent or topic has the highest number of unanswered calls.

• Compare call answer rates across different times of the day.

Service Efficiency and Speed

• Identify the average time taken to answer calls.

• Determine if agents handling more calls have lower response times.

• Analyze if specific topics require longer handling times than others.

Monthly Call Trends

• Compare call volumes across different months.

• Determine if there are seasonal trends affecting call center operations.

• Identify months with the highest customer support demand.

Data Analysis and Performance Metrics

• Explain how the Power BI data model is structured.

• Analyze the relationship between call volume, satisfaction ratings, and resolution rate.

• Identify areas for service improvement based on call center efficiency metrics.