Update and Enhance Data System

Client: Anonymous
Business Size: Corporation
Industry: Personal Mobility
Country: UK
Technology: Snowflake, Oracle, AppFlow, Python, SQL.

Objective: To provide a more efficient, organised data system

The Brief

The client, a UK-based charity, plays a pivotal role in overseeing the operations of a large vehicle leasing scheme designed to support disabled individuals. This scheme empowers people with disabilities, along with their families and caregivers, by enabling them to lease new cars, scooters, or powered wheelchairs using their disability benefits. Within this framework, the DCC project acts as a key enabler by automating the generation of reports for call centre data analysis. These reports provide actionable insights to enhance customer satisfaction, while also tracking and evaluating agent performance metrics to ensure service excellence.

Background

A UK-based organization manages a nationwide vehicle leasing scheme that supports over 700,000 customers who use disability benefits to lease cars, scooters, or powered wheelchairs. Operating on behalf of a national charity, it combines elements of vehicle leasing, financial services, and customer support, creating a unique business model within the industry. Its customer-first approach emphasizes accessibility, reliability, and service excellence. With a high volume of call centre interactions, the organization relies heavily on data-driven insights to enhance customer satisfaction and improve operational efficiency—factors that directly shaped the consulting approach and the DCC project design.

Methodology

Before this project, the client lacked clear visibility into customer call volumes, reasons for contact, and areas for improving satisfaction. It was also difficult to track call centre agent performance, quality metrics, and workforce-related insights. Without this visibility, decision-making and service improvements were limited.

The project addressed these gaps by delivering a comprehensive view of contact centre operations, enabling better performance monitoring, customer experience insights, and overall operational efficiency.

Solution and Implementation

The solution focused on transforming customer care data from Source System into a reliable reporting platform. Source System exposed data through APIs in JSON format, which was ingested, processed, and converted into a readable structure in Snowflake. The data was then organized into tables and views, enabling reporting through Oracle Analytics Server (OAS) dashboards and Oracle DV for business stakeholders. The implementation leveraged a modern data stack, including Snowflake, AWS S3, Lambda, IAM, AppFlow, Terraform, Python, ODI, Oracle DB, and OAS.

Results

With the new solution in place, the client now has a 360-degree view of contact centre operations. They can accurately track call volumes, customer reasons for contact, and agent performance, while also monitoring quality and satisfaction measures. This improved visibility enables data-driven decisions to enhance customer experience and optimize workforce performance.

Consultant Contribution

As a Data Engineer, I was responsible for designing and implementing data pipelines, transforming API data for analytics, and developing Python scripts to enhance automation. I also supported production issues, managed deployments, and ensured smooth delivery of the solution, contributing to the project's overall success.

Lessons learned

At the start of the project, I had limited experience with Python, AWS Lambda, and Terraform. I quickly upskilled by learning best practices while working on real tasks. This allowed me to deliver faster development, robust designs, and improved automation, enhancing both the project outcomes and my own technical expertise.