# 📊 CSCE Customer Service & Channel Excellence Dashboard

A complete data analytics and visualization project built using **Power BI**, **Python (pandas)**, and **SQL**, focused on analyzing Customer Service & Channel Excellence (CSCE) metrics like ticket trends, escalation rates, and agent performance.

## 🔍 Project Overview

This dashboard helps visualize and explore:

* Escalation trends across different channels
* Daily ticket volume trends
* Average resolution time by channel
* Agent performance KPIs
* Status breakdown (resolved vs escalated)

It simulates a real-world CSCE dataset and supports decision-making for operations or customer success teams.

## 📁 File Structure

CSCE\_Dashboard\_Project/  
├── CSCE\_Dashboard\_Data.csv # Main dataset of support tickets  
├── agent\_summary.xlsx # Agent-level KPIs generated using pandas  
├── csce\_dashboard.pbix # Final Power BI dashboard file  
├── csce\_full\_queries.sql # All SQL queries used for insights  
├── python\_sql\_analysis.ipynb # Python + SQLite code (Jupyter Notebook)  
├── dashboard\_screenshot\_1.png # Visual of final dashboard  
├── dashboard\_screenshot\_2.png # KPI section preview  
└── README.md # This file

## ⚙️ Tools & Tech Used

* **Power BI** (DAX measures, KPI visuals, slicers)
* **Python (pandas, sqlite3)** for preprocessing, grouping, and exporting agent summaries
* **SQL** (via SQLite) for analytical queries

## 📊 Dashboard Features

* 📈 **Line Chart** – Daily Ticket Volume
* 🔢 **KPI Cards** – Total Tickets, Avg Satisfaction, Escalation Rate
* 📊 **Bar Chart** – Avg Resolution Time by Channel
* 🧩 **Pie Chart** – Ticket Status Breakdown
* 📋 **Table** – Agent-wise Ticket Count, Avg Resolution, Escalation Count
* 📅 **Slicers** – Date Range, Agent, Channel

## 🧠 Key Insights Enabled

* Which agents handle the most tickets and with highest satisfaction?
* What percentage of tickets get escalated?
* Which channels have the highest resolution times?
* Ticket trends across time

## 🚀 How to Run

1. Open csce\_dashboard.pbix in Power BI Desktop
2. Use slicers to filter by channel, date range, or agent
3. Hover over charts or drill into agent performance

*(Optional: Reconnect data sources if files are moved)*

## 🧑‍💼 Add to Your CV

Built a CSCE analytics dashboard using Power BI, SQL, and Python to visualize ticket escalation, resolution, and agent performance KPIs. Tools used: Power BI, DAX, pandas, SQLite.

## 📷 Preview Screenshots

## 📬 Connect

**Author**: *Your Name*  
📫 [Email / LinkedIn / GitHub if public]

Feel free to fork or build upon this for customer support analytics, helpdesk performance, or business operations dashboards.