**Project Title:**

**Intercity Bus Transportation Schedule Analysis**

**❓ Problem Statement:**

A nationwide bus company operates multiple routes connecting major cities in Nigeria, including Abuja, Lagos, Kano, Enugu, and Port Harcourt. Each day, different operators manage scheduled trips with varying departure and arrival times. Management wants to optimize scheduling efficiency, operator performance, and route planning.

You have been given access to historical trip data for analysis. Your task is to use **SQL** to answer key business questions related to:

* Frequency of routes and trips
* Efficiency and reliability of operators
* Travel demand patterns by date and city
* Time-based insights for scheduling improvements
* Operator route coverage and performance ranking

**📌 Goals of the Analysis:**

1. Understand the **distribution of trips** across cities and operators.
2. Identify the **most and least active routes** and bus stops.
3. Calculate **time-related statistics**, like earliest departures and busiest days.
4. Use **SQL aggregations and window functions** to evaluate performance per operator.
5. Detect **overlapping or underused routes**, helping management optimize their schedule.

**Your SQL Task:**

1. **List all trips operated by 'MetroTrans'.**
2. **Find the number of trips per operator.**
3. **Identify the most common route.**
4. **Get trips that originated from 'Abuja' and went to 'Lagos'.**
5. **Find the earliest departure and latest arrival times per route.**
6. **Count how many trips occurred on each date.**
7. **Group trips by operator and show average departure time.**
8. **Use RANK() to rank operators by number of trips.**
9. **Identify trips where origin and destination are in the same state (you can modify schema).**
10. **Find operators that serve more than 2 unique routes.**

**What are your Recommendations based on the Insights gotten?**