**Simple Project Description**

**Project Name:** MTA Daily Ridership Analysis

**Objective:**

Analyze public transportation usage trends before and after the COVID-19 pandemic to identify passenger behavior patterns and improve service efficiency.

**Tools Used:**

* **Power BI:** for data visualization and dashboard creation and **Data dictionary**.
* **Power Query:** for data cleaning and transformation.
* **Microsoft Excel:** as the primary data source.
* **DAX (Data Analysis Expressions):** for advanced analytics.

**Key Findings:**

* Total post-pandemic ridership: **7.93 billion** (compared to **25 billion** pre-pandemic).
* Recovery rate: **31.31%** of pre-pandemic levels.
* **Wednesday** was the busiest weekday, while weekends saw significantly lower ridership.
* **Autumn** had the highest ridership among seasons.
* **Subways** were the most used mode of transportation.

**Recommendations:**

* Enhance services during peak seasons and weekdays.
* Boost marketing efforts to increase weekend ridership.
* Improve subway services as the most utilized transit option.

**Conclusion:**  
The project highlights the power of data analytics in optimizing public transportation. Data-driven insights can support smarter urban mobility planning and decision-making for more efficient transit systems.

**Next Steps:**

Future research could explore real-time ridership predictions, policy impacts, and AI-driven optimizations.