

KOVAI.CO INTERN

INSIGHTS (Google collab is attached)

INSIGHT 1:

Impact of COVID-19 Lockdowns and Public Holidays on Transport Usage

This tells us In future, the transport department should: Keep Local Routes and Light Rail partially active with reduced frequency

INSIGHT 2

“Local Route services show significantly higher usage on weekdays compared to weekends — with up to a 40–60% drop on Saturdays and Sundays.

Transport authorities can use this insight to optimize weekend fleet deployment — reducing service frequency or reallocating drivers during weekends — resulting in cost savings without affecting commuter satisfaction.”

INSIGHT 3

Leveraging Light Rail's Weekend Demand for Leisure-Oriented Growth

While most services like School and Rapid Route see steep drops on weekends, Light Rail maintains high usage, suggesting it's used for leisure, shopping, or tourism, not just commuting.

INSIGHT 3

COVID-19's Lingering Footprint on Weekend Ridership Patterns

What we observed:

- Weekend ridership dropped significantly during 2020–2021 due to COVID-19 restrictions.

FORECASTING REPORT

MODEL USED : FACEBOOK PROPHET

I used Facebook Prophet for time series forecasting.

WHY PROPHET?

"For forecasting daily passenger journeys, I chose Facebook Prophet because it is designed for time series data with multiple seasonality patterns, such as weekly and daily cycles. Prophet handles missing data and outliers well, which is common in transport data. It requires minimal manual tuning, making it efficient for rapid prototyping. Compared to classical models like ARIMA, which needs stationary data and complex parameter tuning, Prophet is more flexible. Deep learning models like LSTM require more data and computational resources, which aren't ideal here. Thus, Prophet offers the best balance of accuracy, interpretability, and ease of use for this business problem."

Output:

