**Key Insights about the dataset:**

1. School service shows a seasonal trend which prevails only during the school opening months.
2. Due to pandemic restriction, 2019 has shown low rates for all the services followed by steady increase in the following years.
3. Rapid routes have been the most used service on the whole while comparing all the other services.
4. From the forecasting it’s been known that weekday and weekend trends are present. All the services tend to show a decrease in usage on the weekends.
5. Other Services haven’t produced a considerable effect . Rapid route and light rail have shown a high correlation

**Model utilized for the forecasting:**

SARIMAX (Seasonal AutoRegressive Integrated Moving Average with eXogenous variables) is an advanced time series forecasting model that builds upon the ARIMA and SARIMA models by adding the capability to include exogenous variables (external predictors).

* **p**: order of autoregression (AR)
* **d**: degree of differencing (I)
* **q**: order of moving average (MA)
* **P, D, Q**: seasonal components (same as above)
* **s**: length of seasonal cycle
* **X**: exogenous (external) variables, e.g., weather, promotions, holidays, etc.