

Projections Case Study

Findings

- The Traffic Data clearly showed an upward trend
- The Content Type Features did not have any visible trend but had some Randomness/Cyclicity/Irregularities
- Most of the Content Type Features were found to be not stationary using Dickey Fuller Test, however with order of 1 differencing was sufficient to make them stationary
- Based on Granger Causality Test, almost all the Content Type Features were found to have no causality on the Traffic. “Tier 4 Non Video Content” was the only feature which was able to reject the Null Hypothesis to show the causality on Traffic

Model Details

- Used a basic Vector AutoRegressive model for the Multivariate Time Series Data
- Used only “Tier 4 Non Video Content” in addition to self lags of Traffic to create the equation for VAR
- Lags of order 2 was found to be optimum using Vector Auto Regressive model
- VAR Model was created for prediction using VARMAX class
- Test Forecasting for Traffic Projection gave decent accuracy with RMSE value as 1/6th of mean