Trend prediction for timeseries data:

Task:

To predict future trends or values based on historical time series data. The task involves:

* **Forecasting:** Predicting future values (Network traffic, Bandwidth utilization).
* **Anomaly Detection:** Identifying unusual patterns.
* **Pattern Recognition:** Understanding seasonal trends or cycles.

Performance:

The performance of a time series model will be evaluated using metrics that measure the accuracy of the predictions. Metrics include:

* **Mean Absolute Error (MAE):** Measures the average absolute difference between predicted and actual values.
* **Root Mean Squared Error (RMSE):** Penalizes larger errors more than MAE.
* **Mean Absolute Percentage Error (MAPE):** Expresses errors as a percentage, making it interpretable.
* **R-squared (R²):** Indicates how well the model explains the variability of the data.

Experience:

Dataset:

The dataset should includes:

* **Time Index:** Timestamps or regular intervals.
* **Target Variable:** The value we want to predict (LanTx,LanRx)
* **Optional Features:** Additional explanatory variables (e.g., weather conditions for predicting energy consumption).