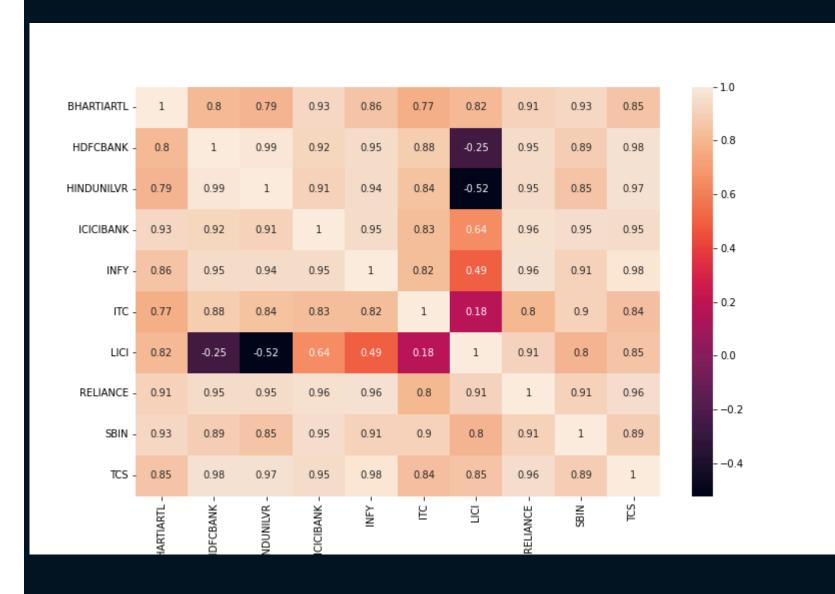


## **Correlation Analysis**



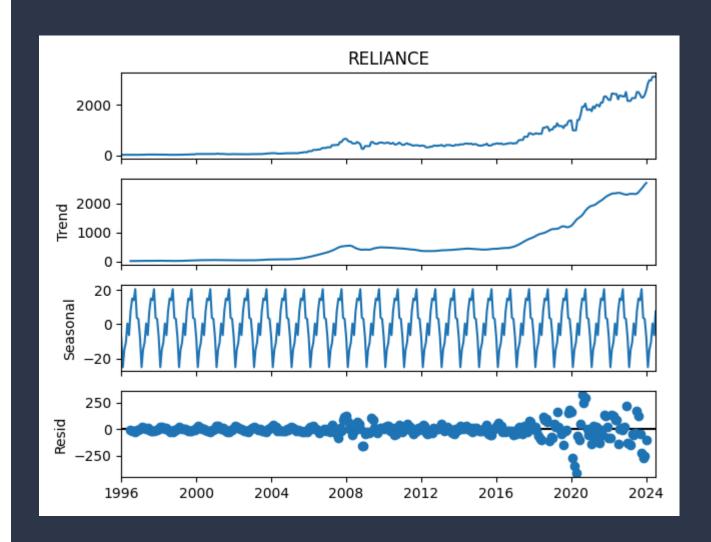
Correlation analysis is a statistical technique used to measure and evaluate the strength and direction of the relationship between two or more variables.

HINDUNLVR and LICI are inversely correlated with the -0.52, their price movements tend to move in opposite directions.

INFY and TCS exhibit a high correlation coefficient of 0.98, it indicates that their prices move almost in tandem, demonstrating a strong positive relationship in their price movements.

Most of the stocks are correlated with each other.

## Time Series Decomposition Analysis



- **Trend:** The long-term progression of the series, which shows whether the data is increasing, decreasing, or staying relatively constant over time.
- Seasonality: Patterns that repeat at known intervals shorter than the total time span of the data.
- Residual (or noise): The random fluctuations or noise left after removing the trend and seasonal components. It represents the unpredictability or irregularity in the data that cannot be attributed to trend or seasonality.

## **Anomaly Detection Analysis**

