Time Series-1

Assignment Questions

PW SKILLS

Q1. What is a time series, and what are some common applications of time series analysis?

Q2. What are some common time series patterns, and how can they be identified and interpreted?

Q3. How can time series data be preprocessed before applying analysis techniques?

Q4. How can time series forecasting be used in business decision-making, and what are some common challenges and limitations?

Q5. What is ARIMA modelling, and how can it be used to forecast time series data?

Q6. How do Autocorrelation Function (ACF) and Partial Autocorrelation Function (PACF) plots help in identifying the order of ARIMA models?

Q7. What are the assumptions of ARIMA models, and how can they be tested for in practice?

Q8. Suppose you have monthly sales data for a retail store for the past three years. Which type of time series model would you recommend for forecasting future sales, and why?

Q9. What are some of the limitations of time series analysis? Provide an example of a scenario where the limitations of time series analysis may be particularly relevant.

Q10. Explain the difference between a stationary and non-stationary time series. How does the stationarity of a time series affect the choice of forecasting model?

Note: *Create your assignment in Jupyter notebook and upload it to GitHub & share that github repository link through your dashboard. Make sure the repository is public.*