MORADA JR, CELSO D.

1. Why is decomposing time series important before forecasting?

    - Decomposing helps to identify and understand the underlying patterns in the data, such as trend, seasonlity, or irregular components (noise). By isolating these components, we can choose more appropriate forecasting models that specifically address each aspect of the time series. For example, if a time series has a strong seasonal component, using a model that accounts for seasonality (like SARIMA) will likely yield better forecasts than a model that does not. Additionally, decomposition can help in diagnosing issues with the data, such as non-stationarity, which can affect the performance of certain forecasting methods. Overall, decomposing a time series provides valuable insights that can lead to more accurate and reliable forecasts.

2. What are the ARIMA's limitations in seasonal data scenarios?

    - ARIMA models are not inherently designed to handle seasonality.