***Questions week-12-StockPredictionDeployment***

How does the Prophet Algorithm differ from an LSTM?

The LSTM prediction is based on a set of last values, we are therefore less prone to variance due to seasonality and already consider the current trend. In contrast to that, the prophet model is doing a good job modeling as an additive system and finding out and displaying seasonalities.

Why does an LSTM have poor performance against ARIMA and Profit for Time Series?

Arima is better than LSTM in weekly and monthly datasets, but not in daily which has a bigger data volume.

What is exponential smoothing and why is it used in Time Series Forecasting?

Exponential smoothing is a method for forecasting univariate time series data. It is based on the principle that a prediction is a weighted linear sum of past observations or lags

What is stationarity? What is seasonality? Why Is Stationarity Important in Time Series Forecasting?

Stationarity means that the statistical properties of a time series (or rather the process generating it) do not change over time. Stationarity is important because many useful analytical tools and statistical tests and models rely on it. Meanwhile seasonality is a characteristic of a time series in which the data experiences regular and predictable changes that recur every calendar year. Any predictable fluctuation or pattern that recurs or repeats over a one-year period is said to be seasonal.

How is seasonality different from cyclicality? Fill in the blanks:  
If the fluctuations are not of a fixed frequency, then they are cyclic; if the frequency is unchanging and associated with some aspect of the calendar, then the pattern is seasonal.