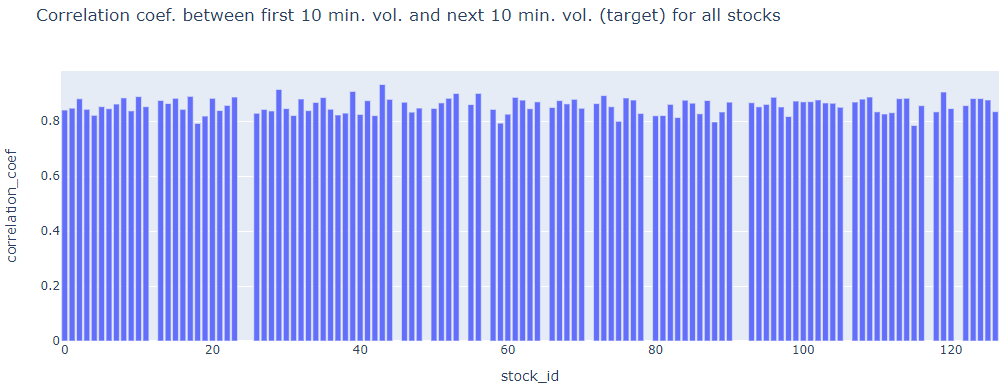
# **Key Insights that are important**

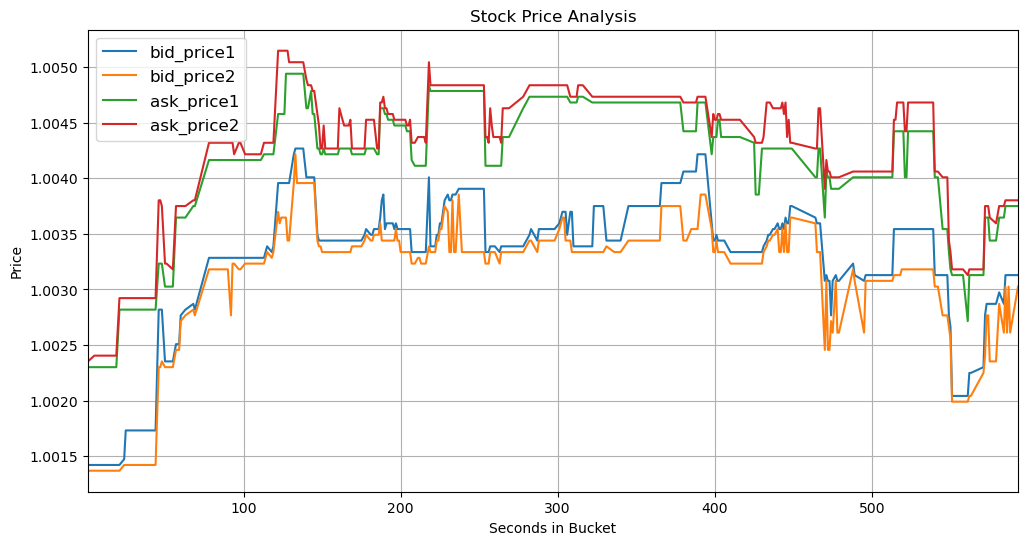
Record Key Insights that cannot be missed!

## 1) Correlation between real. Vol in first 10 mins and next 10 mins (target) for all stocks

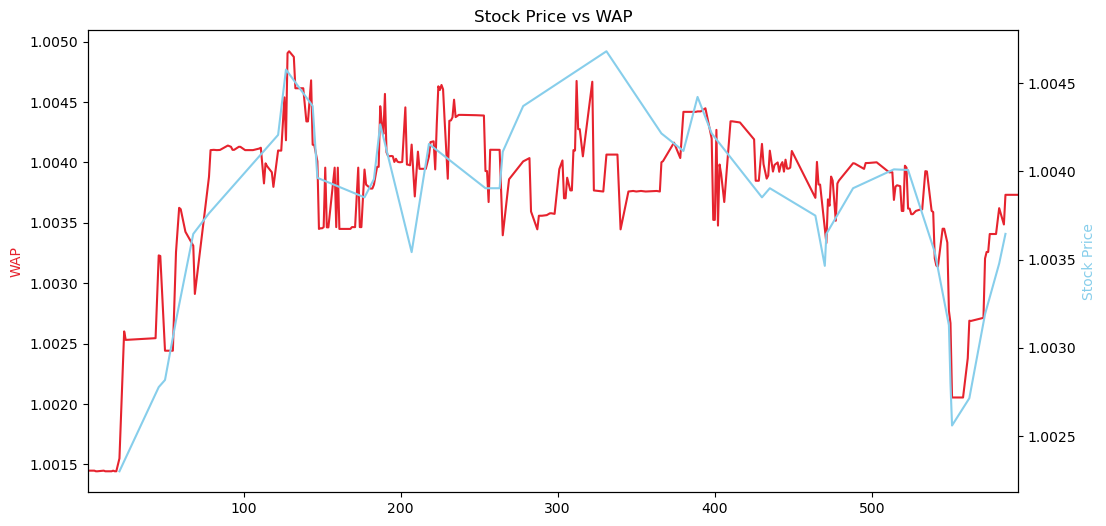
****

## past 10 min real vol is a good predictor of future 10 min real vol.

## 2) Bid Price VS Ask Price (For Stock 0 at time id 5):

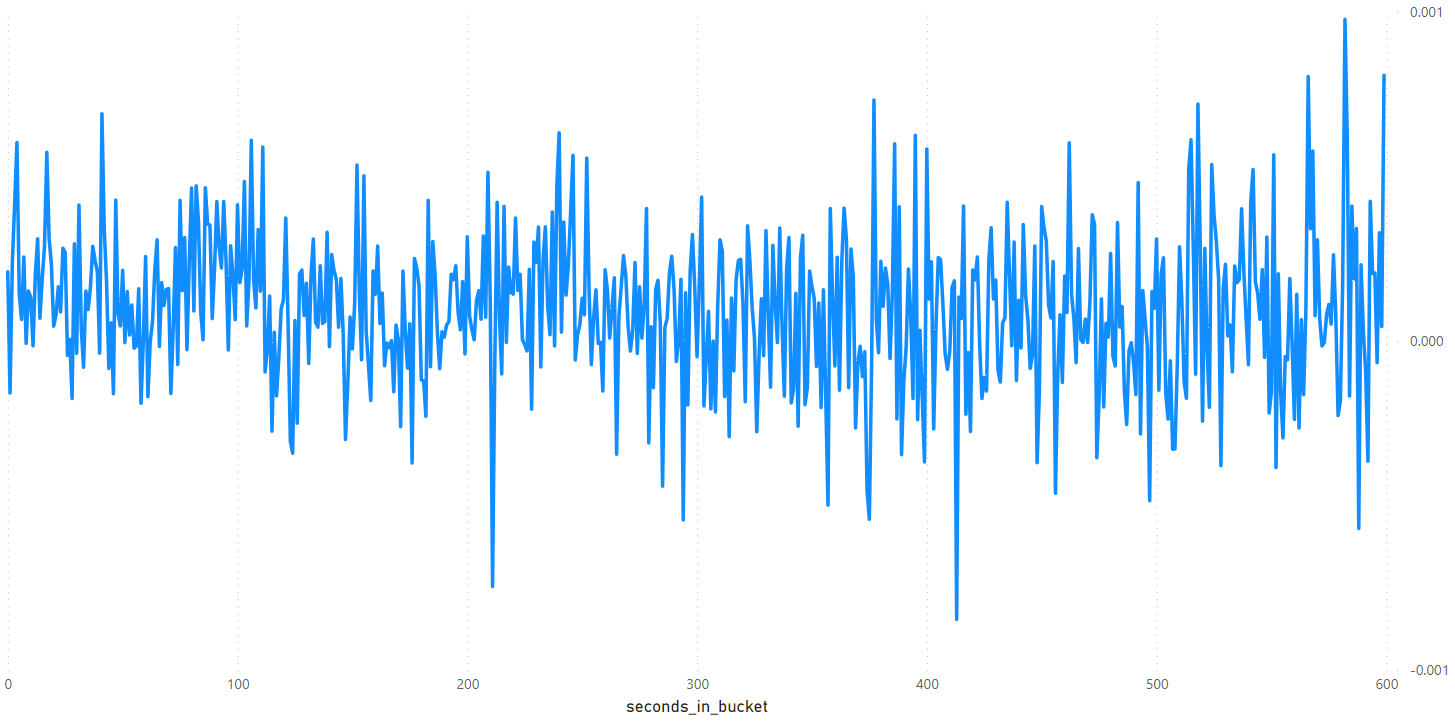
****

## 3) Stock Price VS WAP (For Stock 0 at time id 5):



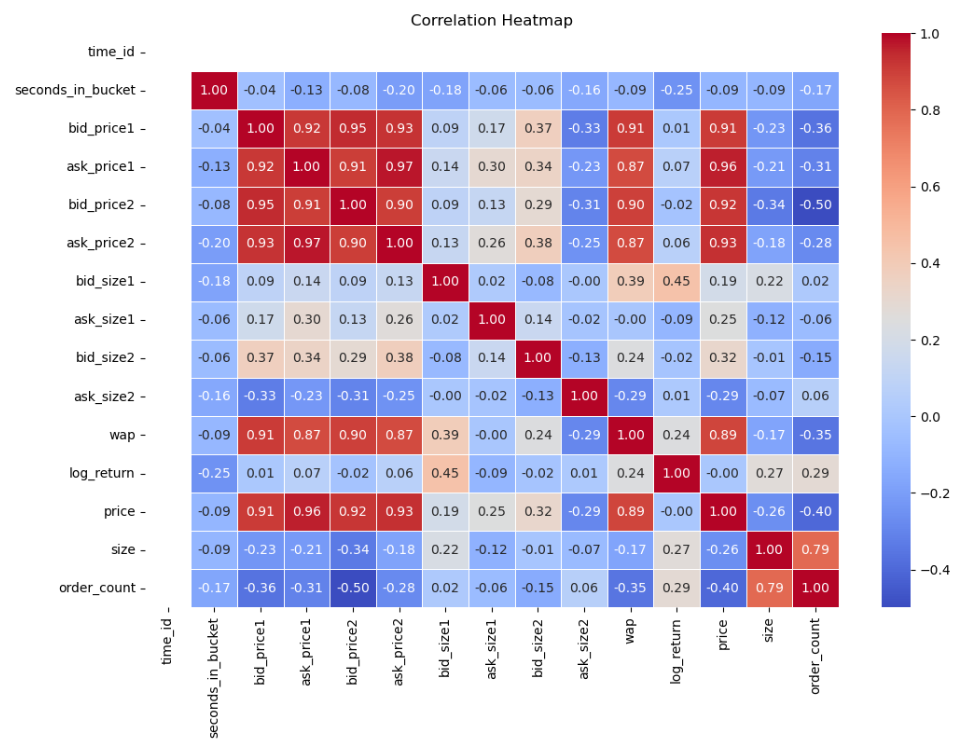
* Bid price and ask price form the lower and upper limit for WAP. WAP is correlated with the actual trade execution price (stock price) as shown above. Could we say that high volatilities in calculated WAP could indicate a high volatility in stock price?

## 4) Difference between Stock Price change and WAP for stock id 0 for aggregated time id (Please verify this):



This represents the mean difference between the aggregated average of WAP across all time IDs and the price for stock ID 0. As we, can observe there is not much difference between both trends so we can safely say that the **correlation between WAP and Stock price is High.**

## 5) Correlation Heat Map (For Stock 0 at time id 5):



The correlation heatmap presented above reveals that our stock demonstrates a robust positive correlation with [bid\_price1, ask\_price1, bid\_price2, ask\_price2, wap], with an approximate 90% correlation coefficient. Conversely, there is a notable negative correlation of around 40% with the [order\_count] variable.