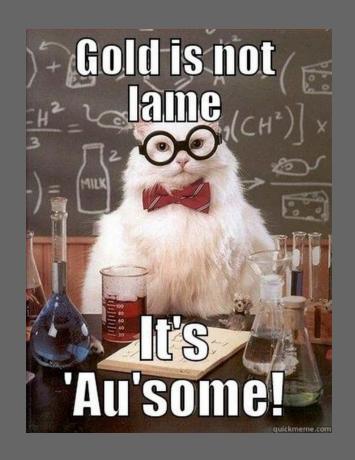
#### Gold Price Prediction

-Anamika Singh(19033) Saikat Das(19260) Yashika Patil(19339)

# Why investing in GOLD!

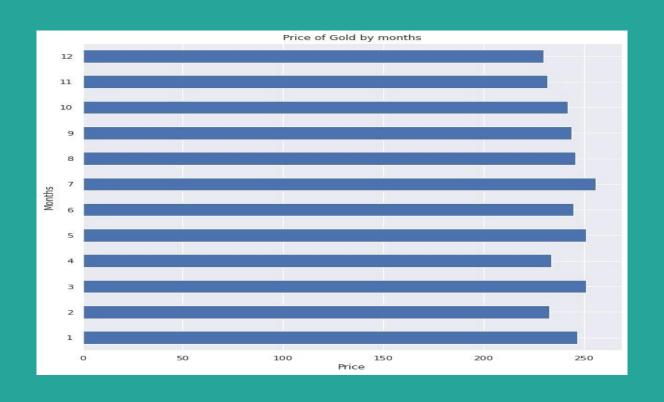


- Gold has been used as money for exchange, as a store of value, and as valuable jewellery and other artifacts. Gold is rare and doesn't get rust easily.
- Gold's value is ultimately a social construction: it is valuable because we all agree it has been and will be in the future.
- Still, gold's lustrous and metallic qualities, its relative scarcity, and the difficulty of extraction have only added to the perception of gold as a valuable commodity.

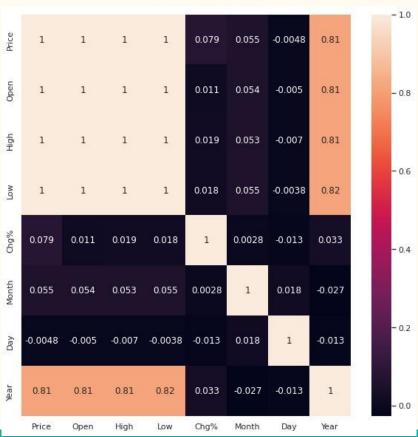
# Data sources and Models

- Data has been collected from the Investing.com(https://in.investing.com/commodities/gold-mini-historical-data?end\_date=1668515089&st\_date=946665000) and World development Indicators(https://databank.worldbank\_org/source/world-development-indicators)
- Models like SARIMAX, LSTM have been used to predict future values.

#### Which month has the highest price?



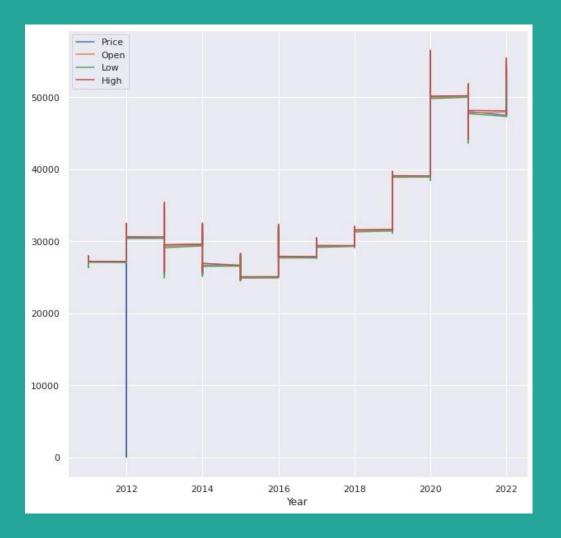
### Heatmap to show the pairwise correlation between different variables



Gold prices fell to a 21-month low of Rs 26,440 per ten grams in the domestic markets on April 16 due to continued sell off in the global markets.

Gold prices had touched the all-time high of Rs 32,975 per 10 grams on November 27, 2012.

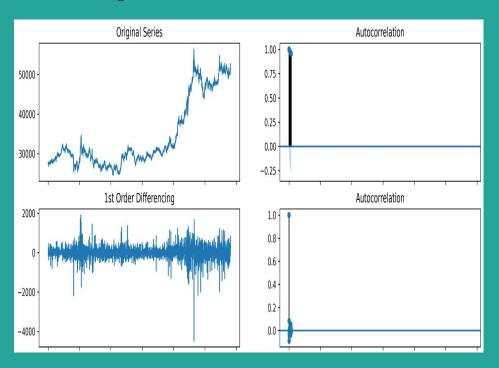
It's one of the reason was the ongoing wedding season then.

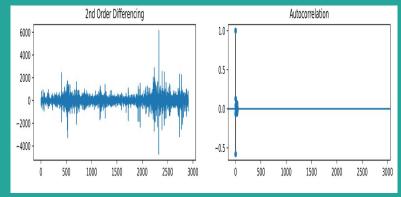


And now I'll have to think about other than buying gold

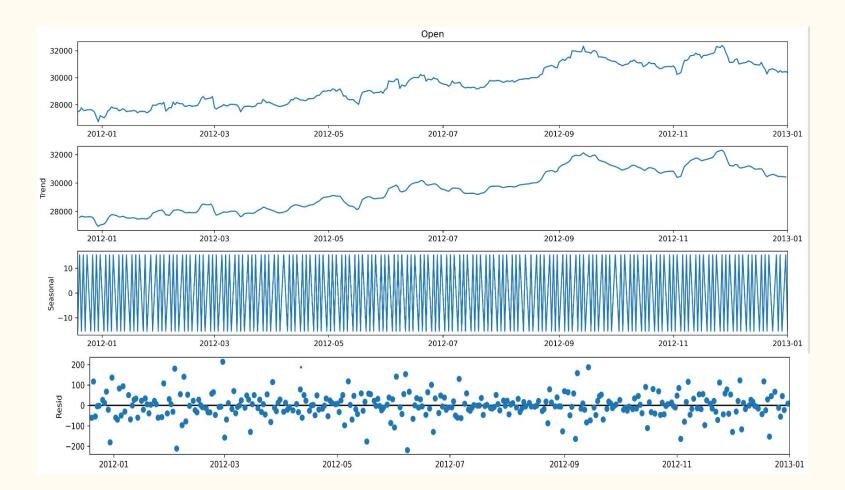


Stationarity: By KPSS TEST: Data was not stationary, We made the data stationary by differencing it two times.

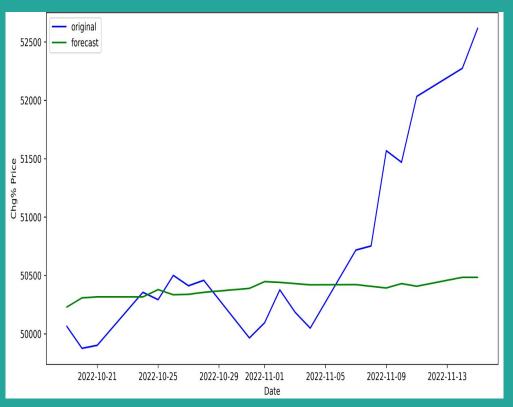


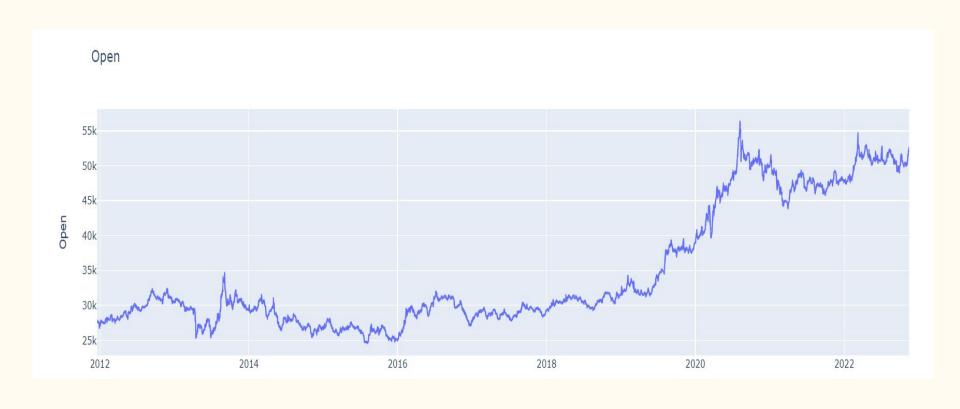


Series and their autocorrelation.

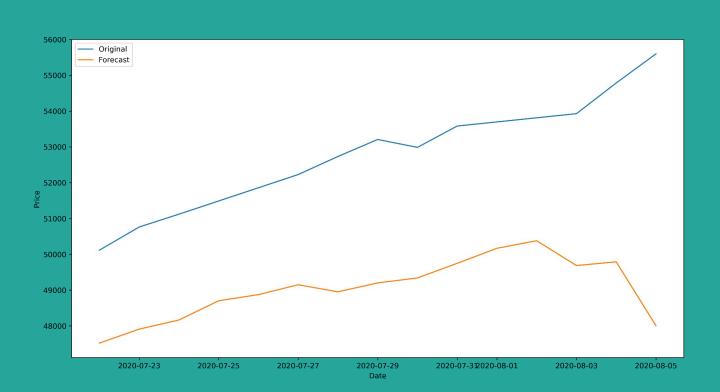


## Applying the model SARIMAX Then we predicted the trend.





# Applying model LSTM from DEEP LEARNING for more accuracy

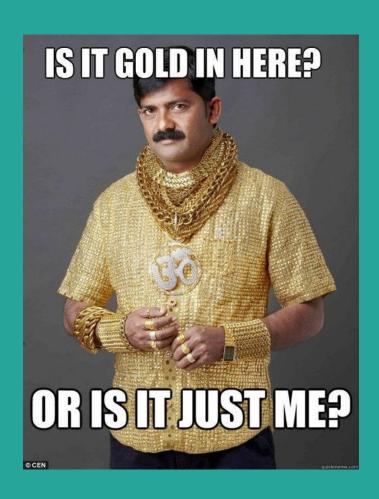


#### Conclusion:

Gold price is associated with many factors like supply and demand.

The easy gold mining has already been done and now people have to mine deeper to get a small amount of gold. Mining gold now is also hazardous to human as well as the environment.

From the observation we can see that LSTM is not working properly as compared to SARIMAX.



#### THANK YOU!