

Solution Sheet

1. Which model have you used for stock price prediction? Explain your model.

A. Firstly, the given problem is a Regression Problem as we have to find a discrete value i.e. "Stock Price". Using Scikit-Learn's MindMap we had come up with three models which are suitable for the problem :

- LinearRegressor
- RidgeRegressor
- RandomForestRegressor

Among these three RandomForestRegressor performed well while Evaluating the model on different aspects.

RandomForest mostly is the best estimator for labeled Structured Data.

2. Which model have you used for Put-Call ratio Time series prediction? Explain your model.

A. Given problem is a Time-Series Forecasting problem. Well known algorithms for this are :

- **VAR** : Vector Autoregression
- **ARIMA** : Auto Regressive Integrated Moving Average
- **LSTM** : Long Short Term Memory

Firstly we tried to incorporate LSTM which is one of the best models of time series but due to insufficient data we could come up with an optimal model.

Then we tried between ARIMA and VAR, as ARIMA only processes on Univariate data we then used VAR, which gave us the desired results.