Project Design Phase-I
Proposed Solution Template

Date	21 September 2022
Team ID	PNT2022TMID52793
Project Name	Crude Oil Price Prediction
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The price of crude oil, the most important fuel in the world, has a significant impact on the environment globally, thus forecasts are extremely useful for governments, corporations, and individuals. Continuous application of statistical and econometric tools, including AI, may reduce forecast accuracy.
2.	Idea / Solution description	Time series analysis is the best option for this kind of prediction because we are using the Previous history of crude oil prices to predict future crude oil. So we would be implementing RNN(Recurrent Neural Network) to achieve the task. The mean squared error is used to calculate the cost's effectiveness. The suggested model's performance is evaluated using pricing information from WTO crude oil materials.
3.	Novelty / Uniqueness	The uniqueness of our project lies in the RNN model that we use to solve this problem. We have chosen LSTM to predict the oil prices. LSTMs are good when it comes to performing time series analysis.
4.	Social Impact / Customer Satisfaction	Our model helps customers to buy crude oil at the proper time and gives proper insights about crude oil prices. It is used to forecast future prices and utilise oil in accordance with such predictions. This price has a direct impact on a variety of goods and products, and its fluctuations have an impact on the stock markets. Significant events, in addition to economic causes, can have an impact on oil prices.
5.	Business Model (Revenue Model)	It can be useful for decision-makers who are businesses, individual investors, or both when deciding whether to buy or sell crude oil. Crude oil is one of the most profitable commodities to

		trade. The benchmark model for predicting crude oil prices is RNN and LSTM.
6.	Scalability of the Solution	The PCA, MDS, and LLE algorithms are used to minimise the dimensionality of the data. The accuracy of RNN and LSTM models should be improved.