

Project Design Phase-I Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID50796
Project Name	Project - Crude Oil Price Prediction
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
•	Problem Statement (Problem to be solved)	Crude oil is the world's leading fuel, and its prices have a big impact on the global environment and its forecasts are very useful to governments, industry and individuals. The continuous usage of statistical and econometric techniques including AI for crude oil price prediction might demonstrate improvements to the prediction performance.
•	Idea / Solution description	This solution uses deep learning models for the prediction of crude oil price. The deep learning models that are used for time series prediction are used in this solution. Two such models are LSTM (Long Short Term Memory) and GRU (Gated Recurrent Units). They can be used in combination to make the prediction.
•	Novelty / Uniqueness	<ul style="list-style-type: none"> ● Crude oil price fluctuations have a far reaching impact on global economies and thus price forecasting can assist in minimising the risks associated with volatility in oil prices. ● Price forecasts are very important to various stakeholders: governments, public and private enterprises, policymakers, and investors.
•	Social Impact / Customer Satisfaction	This application will help people working in the area of investment to take better decision regarding investing on the crude oil. This will help them to predict days to buy and sell crude oil, as the prices are often variable. The customer satisfaction depends on the accuracy of the solution. The better the closeness of the predicted prices of the crude oil to the original prices, more useful this solution becomes.
•	Business Model (Revenue Model)	<ul style="list-style-type: none"> ● It can help decision makers – either firms, private investors, or individuals – when choosing to buy or sell the crude oil ● crude oil is one of the most profitable trading

		<p>commodities for traders.</p> <ul style="list-style-type: none"> ● RNN and LSTM models are used as the benchmark model to predict the crude oil prices.
•	Scalability of the Solution	<p>The solution frontend pages are built modularly. More pages can be added as we require. In backend flask can orchestrate the different functions, so in the future new functions and related pages can be added to the solution.</p>