Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	15 October 2022
Team ID	PNT2022TMID40520
Project Name	Crude Oil Price Prediction
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	**User Registration**	● Registration through Form ● Registration through Gmail
FR-2	**User Confirmation**	● Confirmation via Email ● Confirmation via OTP
FR-3	**Authentication**	● Verifying the identity of the user (ie)checking the email and password is correct.
FR-4	**Authorization levels**	● User has been properly identified and authenticated. authorization levels determine the extent of system rights that the user has access to.
FR-5	**Historical data management**	● Historical data to forecast future performance of the company. ● Historical data includes your company's financial statements, client invoices and any information you believe has relative predictive value to the future success of your company.

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	● 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.
NFR-2	**Reliability**	● Price forecasts are very important to various stakeholders, governments, public and private enterprises, policymakers, and investors.
NFR-3	**Performance**	● Using the LSTM model the accuracy of crude oil price prediction is increased.

NFR-4	**Availability**	● Crude oil is not in infinite supply. After all, it took millions of years to "brew". Estimates vary, but if our current consumption continues apace, we may well see a time in the near future when it is completely exhausted. ● Oil reserves are found all over the world. The top oil producing countries are Saudi Arabia, Russia, the United States, Iran, and China.
NFR-5	**Scalability**	● Hydrodynamic conditions in oilfield operations is suggested. ● Modern refineries typically use a high number of sensors that generate an enormous amount of data. ● Sustainable Solution for Crude Oil using concentrated Solar Power Technology.