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

Date	17 October 2022
Team ID	PNT2022TMID43400
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 • OAuth Authentication • Registration through LinkedIn
FR-2	User Confirmation	• Confirmation via Email • Confirmation via Mobile OTP
FR-3	User Login	• Login through username and password • Login through Gmail • Login through LinkedIn • OAuth Authentication
FR-4	Primary specifics	• Sync oil price every second • Show Up and Down graph in real-time in accordance with the oil price
FR-5	Additional Requirement	• Read the latest news • View price charts • Review futures on the selected quotation • Analyze historical price trends • Check exchange rates and commodities futures • Volume of trades happening now
FR-6	System Responsibility	• Allowing the user to select a date • Track the previous results • The pricing news should be updated

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	• To utilize a system easily and accelerate routine operations, it must have a logical user interface. • Anyone who registers on the portal can utilize the system.
NFR-2	**Security**	The following is a list of some of the factors that have been found to prevent malicious or unintentional access, usage, modification, destruction, or disclosure of the software: • Maintain particular log or historical data sets. • Apply specific cryptography methods. • Limit the number of devices that can access the website for predicting the price. • Verify the integrity of the data.
NFR-3	**Reliability**	• At the time of entry, all user variable data will be committed to the database. • By using the available backup procedures and techniques, data corruption is avoided.
NFR-4	**Performance**	• The system must allow for the simultaneous use of many users at all times. • The accuracy of the price should be at the maximum.
NFR-5	**Availability**	• The system should always be accessible, allowing for simple user access. • A replacement page will be displayed in the event that hardware or data base failure increases, and data should be obtained to restore the system.
NFR-6	**Scalability**	• Identifies the maximum workloads at which the system will still operate well. • Focus on the measurement of the system's response time under various load levels.