

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

Date	11 October 2022
Team ID	PNT2022TMID21805
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	<ul style="list-style-type: none">• Registration through Form• Registration through Gmail• OAuth Authentication• Registration through LinkedIn
FR-2	User Confirmation	<ul style="list-style-type: none">• Confirmation via Email• Confirmation via Mobile OTP
FR-3	User Login	<ul style="list-style-type: none">• Login through username and password• Login through Gmail• Login through LinkedIn• OAuth Authentication
FR-4	Primary specifics	<ul style="list-style-type: none">• Sync oil price every second• Show Up and Down graph in real-time in accordance with the oil price
FR-5	Additional Requirement	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<p>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:</p> <ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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.