Project Design Phase - I (Solution Fit)

Project Title : Crude oil price prediction **Team ID :** PNT2022TMID36951

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) — CS

- Oil accounts are the third of the world's energy con sumption That is the greatest share for all category of government

6. CUSTOMER CONSTRAINTS — CC

- Cash involved
- High volatility in predicting the prices

5. AVAILABLE SOLUTIONS — AS

- The frustrations about the results can be avoid by providing a proper timeline and proper planning will be helpful in finishing it in time with the expected output.

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS — J&P

- The prices of crude oil is highly volatile and fluctuates frequently so it is quite tough to predict the prices of crude oil. So it becomes really tough to tackle the supply and demand problem.

9. PROBLEM ROOT CAUSE — RC

- The root cause of this problem is the high volatility and fluctuating aspect of crude oil. This provides an uncertain situations for investors and other members who want to

7. BEHAVIOUR — BE

- Crude oil pieces increase every day. Fluctuations in crude oil prices have devastating impacts on global economies, so oil price forecasting can help reduce the risks associated with oil price volatility.

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS — TR

- The triggers that affect the price prediction are:
- Financial factor
- Supply-demand factor
- Expected global demand
- Speculation

4. EMOTIONS: BEFORE / AFTER — EM

- Before: A sense of doubt in the price leads to fear of losing money. Sudden dip in price may cause frustration.
- After: Assurance in future prices, security, and joy in case the price increase is predicted.

10. YOUR SOLUTION — SL

- For crude oil price prediction, time series analysis is the most appropriate option. This is because we are using the past history of crude oil prices to predict the future price of crude oil. Therefore, we would implement RNN with LSTM (Long Short Term Memory) to accomplish the task

8. CHANNELS of BEHAVIOUR — CH

8.1 ONLINE

- By exploring the internet the users can see the prices of crude oil.

8.2 OFFLINE

- Customers can buy the crude oil and use it for their vehicles.

Extract online & offline CH of BE