Project Design Phase-II
Customer Journey

Date	20 October 2022
Team ID	PNT2022TMID06799
Project Name	Crude Oil Price Prediction

SCENARIO

The prices of crude oil varies in different parts of the world. These prices can be predicted based on certain factors.

EXPECTATIONS
- considering factors
- observing highs and lows
- displaying graphically

PROPOSITIONS → **UNDERTAKE** → **EXECUTIONS** → **COMPLETION**

PROPOSITIONS
- Crude oil price fluctuations have a far reaching impact on global economies
- Price forecasting can assist in minimising the risks
- Very important to various stakeholders: governments, public and private
- Several different factors that affect crude oil prices

UNDERTAKE
- Series are predicted using SVM, ELM, and LSTM models
- Prediction results of the above three single models are first reconstructed using FR
- The XGBoost method is used to make a secondary prediction of the series
- Factors like demand, supply and speculation influence price prediction

EXECUTIONS
- Data from monthly WTI price are first being classified into classes
- Retrieval information from stock market and used text mining to mine the news
- The process of extracting the features from the news was done manually
- The key factors to crude oil market are discovered, verified and presented graphically

COMPLETION
- It proves and validates the selection of variables chosen for the training
- This provides the accurateness not only implies to the trend but also to its discrete price
- A parallel and positive movement existed between the actual price and the predicted price
- Validates the effectiveness of key factors selected in HC model