## MILESTONE AND ACTIVITY LIST

DATE	27 October 2022
TEAM ID	PNT2022TMID12637
PROJECT NAME	Crude Oil Price Prediction
MAXIMUM MARKS	4 Marks

## **MILESTONE**

Data collection	M-01	Download the dataset Crude Oil Prices Daily.	
Data preprocessing	M-02	The downloaded data is preprocessed before training the model.	
Model building	M-03	Build the model using RNN (Recurrent Neural Network) with LSTM(Long Short Term Memory).	
Application building	M-04	Create a python-flask application to run the app in the local browser and showcase the prediction on UI.	
Train the model on IBM	M-05	The model is trained in the IBM cloud.	
Ideation phase	M-06	Perform the literature survey, ideation, and prepare the empathy map.	
Project Design Phase - I	M-07	Prepare the proposed solution, the problem-solution fit, and the Solution Architecture.	
Project Design Phase - II	M-08	Create a customer journey, functional requirements, a data flow diagram, and a technology architecture	
Project Planning Phase	M-09	Make a list of milestones, an activity list, and a sprint delivery plan.	
Project Development Phase	M-10	Develop and submit Sprint 1, Sprint 2, Sprint 3, and Sprint 4	

## **ACTIVITY LIST**

Activity Number	Activity	Sub Activity	Assigned To	Status
1.	Data Collection	Download dataset/ create dataset	All Members	Completed
2.	Data preprocessing	<ul> <li>Import the libraries</li> <li>Import the dataset</li> <li>Handling missing data</li> <li>Feature scaling</li> <li>Data visualization</li> <li>Splitting data into train and test</li> <li>Creating a dataset with sliding windows</li> </ul>	All Members	In Progress
3.	Model Building	<ul> <li>Importing the Model Building Libraries</li> <li>Initialize the model</li> <li>Adding LSTM layers</li> <li>Adding GRU layers</li> <li>Adding output layers</li> <li>Configure the learning process</li> <li>Train the model</li> <li>Model evaluation</li> <li>Save the model</li> <li>Test the model</li> </ul>	All Members	In Progress
4.	Application Building	<ul> <li>Create an HTML file</li> <li>Build Python code</li> <li>Run the app in the local browser</li> <li>Showcasing prediction on UI</li> </ul>	All Members	In Progress
5.	Train the model on IBM	<ul> <li>Register for IBM cloud</li> <li>Train the ML model on IBM</li> <li>Integrate flask with scoring endpoint</li> </ul>	All members	In Progress
6.	Ideation Phase	<ul> <li>Literature Survey On The Selected Project &amp; Information Gathering</li> <li>Prepare Empathy Map</li> <li>Ideation</li> </ul>	All Members	Completed

7.	Project Design Phase - I	<ul><li>Proposed Solution</li><li>Problem Solution Fit</li><li>Solution Architecture</li></ul>	All Members	Completed
8.	Project Design Phase - II	<ul> <li>Customer Journey</li> <li>Functional Requirement</li> <li>Data Flow Diagrams</li> <li>Technology Architecture</li> </ul>	All Members	Completed
8.	Project Planning Phase	<ul><li>Prepare Milestone &amp; Activity List</li><li>Sprint Delivery Plan</li></ul>	All Members	Completed
9.	Project Development Phase	<ul> <li>Delivery Of Sprint-1</li> <li>Delivery Of Sprint-2</li> <li>Delivery Of Sprint-3</li> <li>Delivery Of Sprint-4</li> </ul>	All Members	In Progress