**Meeting Minutes 4**

**Meeting with Professor in class**

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| **Item** | **Details** |
| Date and Time | 28-Feb-2025 |
| Location | In class (Meeting with Mam) |
| Attendees | Kanchan, Lakshmi, Sachin, Karthik, Narendran |
| Absent |  |
| Agenda | * Discussion about insights into Machine Learning models * Interim Report |
| Discussion Points | * Discussion on the accuracy of the Machine Learning models * Discussion on the Interim Report |
| Decisions Made | * The team must work with scaled data to improve the model's accuracy. * The team needs to develop a feature engineering solution to enhance model performance. |
| Actions Items | * Research different techniques to improve the model’s accuracy from the baseline. * Research different techniques to enhance the dataset and adjust the target variable to better suit the selected models. |
| Any concerns (if any) |  |
| Next Meeting Date and Time | 02-Mar-2025 |
| Minutes Prepared By | Lakshmi Priya |

**Meeting with team members(virtually)**

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| **Item** | **Details** |
| Date and Time | 02-Mar-2025 |
| Location | Virtually |
| Attendees | Kanchan, Lakshmi, Sachin, Karthik, Narendran |
| Absent |  |
| Agenda | * Discussion on models which are overfitting. * Discussion on what kind of scaling can be done to the dataset. |
| Discussion Points | * Analysis of Machine Learning models using scaled data for different models * Strategies to further improve accuracy |
| Decisions Made | * The team came up with an idea to scale the dataset by using Standard Scaler preprocessing technique * Discussion on methods to improve accuracy. * Using the subset of the dataset to reduce the runtime as it is taking a vast amount of time for algorithms like prophet to execute. * Add feature engineering techniques to see which features have a major impact on the model and to know if the model performs better on performance metrics. |
| Actions Items | * Lakshmi Priya : Research different techniques to justify the use of ARIMAX and SARIMAX in improving model accuracy. * Kanchan : Use the scaled dataset to see how the model is performing for LSTM algorithm. * Naren : Use the scaled dataset to see if the model is overfitting for Prophet algorithm and work on reducing the runtime. * Sachin : Use the scaled dataset for SVM Regressor algorithm and add feature engineering techniques to evaluate model performance and reduce overfitting. * Karthik : Use the scaled dataset for XGBoost algorithm to improve the model’s accuracy to a certain extent and see if the model performs well on the forecasting part. |
| Any concerns (if any) |  |
| Next Meeting Date and Time | 07-Mar-2025 |
| Minutes Prepared By | Lakshmi priya |

**Meeting with Professor in class**

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| **Item** | **Details** |
| Date and Time | 7-Mar-2025 |
| Location | In class (Meeting with Mam) |
| Attendees | Lakshmi, Sachin |
| Absent | Narendran, Kanchan, Karthik |
| Agenda | * Discussion on insights into advanced Machine Learning models using scaled data. * Discussion on the Interim Report. |
| Discussion Points | * Analysis of Machine Learning models using scaled data for different models * Strategies to further improve accuracy * Structure and overall context of the Interim Report |
| Decisions Made | * The professor suggested limiting the training period to reduce the time required for running models like Prophet. * Discussion on methods to improve accuracy. * Discussion about Moving Averages and Exponential Smoothing methods * Modifications to the structure and content of the report. |
| Actions Items | * Research different techniques to justify the use of ARIMAX and SARIMAX in improving model accuracy. * Add previous semester’s findings, including dataset sources and key insights to the report. * Implement Moving Averages and Exponential Smoothing techniques to see if the model gives us a better forecasted result. * Research techniques to reduce the model's runtime. |
| Any concerns (if any) |  |
| Next Meeting Date and Time | 21-Mar-2025 |
| Minutes Prepared By | Lakshmi priya |