

Project : TKL Logistics

Contribution Log - Project Group 6

Group Member Details

1. Aswathy Gopalakrishnan
 2. Deepa Krishnan
 3. Jini Saroja
 4. Muhammad Malik
 5. Punnoose Kozhuppakalam Thomas
 6. Reshmi Chandran Bhuvanachandran Nair Sobhanakumari
 7. Sneha Mathummal Parapurath
 8. Yonge Li
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Weekly Logs

Week 1

- **Date range : 18-11-2024 to 24-11-2024**

- **Tasks Assigned:**

- Business and data understanding.
- Data retrieval and cleaning.
- Handling missing values.

- **Individual Contributions:**

All the group members were involved in data understanding stage using KNIME and finding out data discrepancies and missing values. Group meeting was held to discuss about the same and to find the work around methods to solve the issues. The group was split into three for implementing this.

- Aswathy Gopalakrishnan, Reshmi Chandran, Yonge Li – Handled Date Discrepancies and generating days for ETA calculation.
- Deepa Krishnan, Jini Saroja, Muhammad Malik – Handled missing CO2 values, issues with transport cost columns, datatype conversions.
- Punnoose Kozhuppakalam Thomas, Sneha Mathummal Parapurath – handling missing distance issue, worked on replacing missing values and outliers with company given ETA.

Issues/Challenges Faced:

Issues with the data where weight was missing. Asked client for dataset with weight. There were confusions regarding the dates which were discussed and cleared in the business meeting. The distance column had missing values in the data set with weight was provided. However, a work around to fill the distance was found by the team.

Week 2

- **Date: 25-11-2024 to 01-12-2024**
- **Tasks Assigned:**
 - Feature selection
 - Finding correlation with ETA, CO2 and costs.
 - Agents ranking based on performance.
 - Modelling with selected algorithms.
 - Optimizing the models.

- **Individual Contributions:**

The tasks were distributed in a similar manner

- Aswathy Gopalakrishnan, Reshmi Chandran, Yonge Li - Finding correlation with ETA, CO2 and costs to find relevant columns. Developed graphs and analysed to come up with a strategy to choose transport with lower cost and CO2 emissions. This was done in accordance with the site provided by the business team.
 - Deepa Krishnan, Jini Saroja, Muhammad Malik - Agent ranking based on performance. Generated relevant graphs to draw conclusions Final cleaning of the data which included handling any missing data, category to number conversion and normalization.
 - Punnoose Kozhupakkalam Thomas, Sneha Mathummal Parapurath – Worked on model building independently and compared the strategies to finalize the best model. Developed relevant dashboards to finalize the model.
- **Issues/Challenges Faced:**

The optimization of the model took quite some time. The issues were handled by experimenting with the configurations of the model and adequate results were found.
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Week 3

- **Date: 02-12-2024 to 09-12-2024**
- **Tasks Assigned:**
 - Making report and final presentation.
- **Individual Contributions:**

The report was divided into sub parts and developed in groups.

- Aswathy Gopalakrishnan, Reshmi Chandran – Data Preparation, Suggestion, Conclusion.
- Deepa Krishnan, Jini Saroja – Introduction, Business understanding.
- Punnoose Kozhuppakalam Thomas, Sneha Mathummal Parapurath – Modelling and Evaluation.
- Yonge Li, Muhammad Malik – Proof reading, adding relevant figures and generating report on Latex.

We confirm that this record accurately reflects the contributions made to the project:

Team Member's Name	Team Member's Signature
Aswathy Gopalakrishnan	
Deepa Krishnan	
Jini Saroja	
Muhammed Malik	
Punnoose Kozhuppakalam Thomas	
Reshmi Chandran Bhuvanachandran nair Sobhanakumari	
Sneha Mathummal Parapurath	
Yonge Li	