Flipkart project

Classification - Flipkart Customer Service Satisfaction

Machine Learning & GenAI with Microsoft Azure

Project Description

Business Context

In the highly competitive e-commerce space, delivering excellent customer service is crucial for sustaining growth and customer loyalty. Flipkart, as one of the largest e-commerce platforms, focuses on enhancing customer satisfaction to differentiate itself from competitors. The dataset in this project captures customer interactions, feedback, and satisfaction scores across various support channels at Flipkart. By analyzing these interactions, the goal is to identify key drivers of customer satisfaction, understand performance across different customer service teams, and develop strategies to improve the overall service experience.

Understanding factors that influence customer satisfaction will allow Flipkart to not only resolve customer issues faster but also tailor its support strategies to meet diverse customer expectations. This will help in optimizing the performance of service agents and improving satisfaction metrics like the CSAT score, ultimately leading to increased brand loyalty and customer retention.

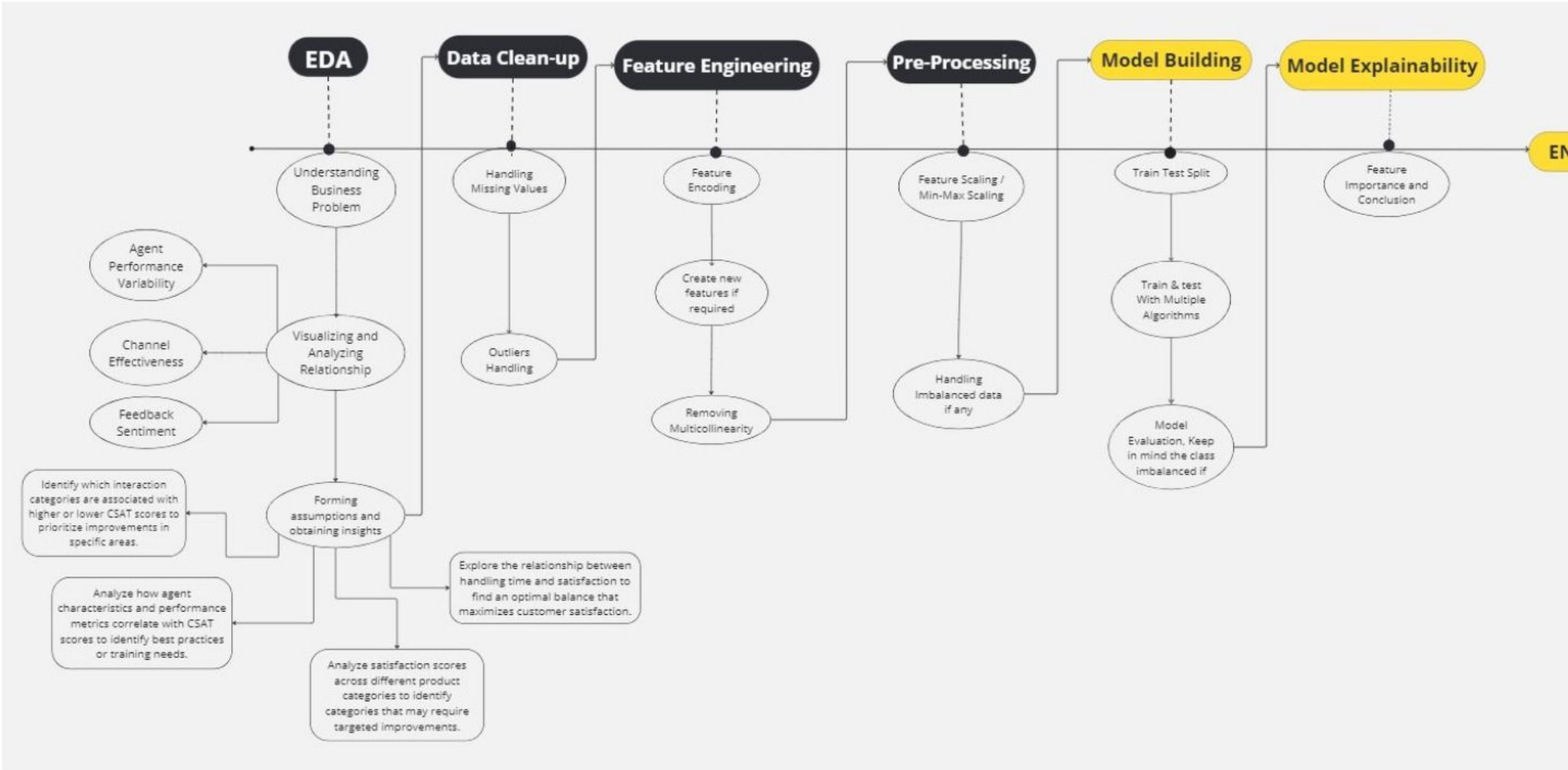
Unique id	Unique identifier for each record
Channel name	Name of the customer service channel
Category	Category of the interaction
Sub-category	Sub-category of the interaction
Customer Remarks	Feedback provided by the customer
Order id	Identifier for the order associated with the interaction
Order date time	Date and time of the order
Issue reported at	Timestamp when the issue was reported
Issue responded	Timestamp when the issue was responded to
Survey response date	Date of the customer survey response
Customer city	City of the customer
Product category	Category of the product
Item price	Price of the item

Connected handling time	Time taken to handle the interaction
Agent name	Name of the customer service agent
Supervisor	Name of the supervisor
Manager	Name of the manager
Tenure Bucket	Bucket categorizing agent tenure
Agent Shift	Shift timing of the agent
CSAT Score	Customer Satisfaction (CSAT) score

Project Architecture:

- **Pandas:** For data manipulation, cleaning, and analysis.
- **NumPy:** For numerical operations and handling large datasets.
- **Matplotlib & Seaborn:** For data visualisation to identify trends and insights.
- **Scikit-learn:** For implementing machine learning classification algorithms and model evaluation.
- **Faker (If required):** Used to generate synthetic data and anonymize sensitive information in the dataset.

Project Architecture:



Rubrics

Rubrics	Weightage
Summary and Technical Documentation in Collab Notebook	10
EDA and Visualization	5
Looking for and Handling NaN/ Null/ Missing Values and Outliers	2.5
Finding Correlation in Variables (Both Dependent and Independent, Visuali	10
Pick Appropriate Independent Variables, Test Train Split, Train Model	10
Prediction and Calculate Some Evaluation Metrics for Model	10
Number of Models Experimented (At least 2)	5
Hyperparameter Tuning	5
Final Summary of Conclusion	2.5
Commented Code	5
Proper Output Formatting	5
Modularity of Code	5
Video Presentation	20
Fluency and Grammatical Accuracy in Video	5