



MULTIMART

Loyalty Card & Total Purchases Prediction

Group- 07

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Our Team



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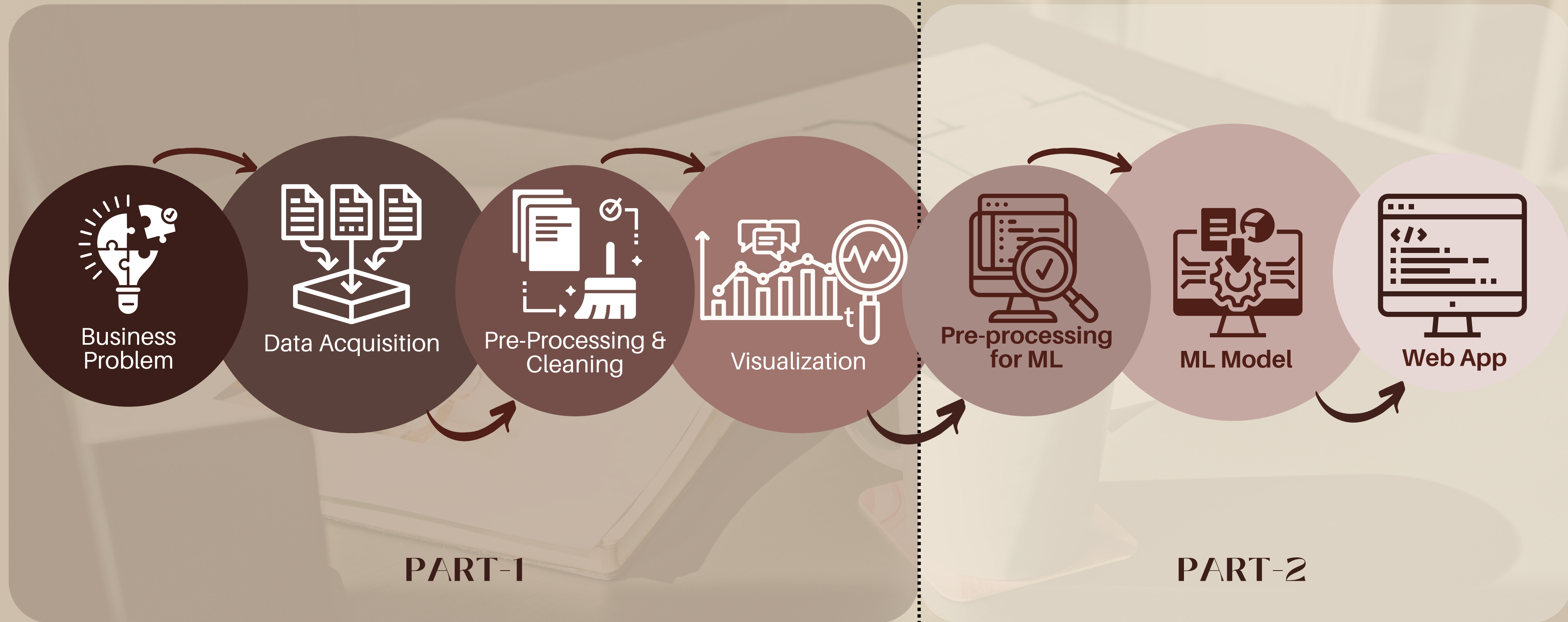


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Project Flow





Identifying Business Problem

Initial phase of the project defining the core challenge faced by the business, often through stakeholder consultation

Data Acquisition

Gathering relevant datasets from various sources to support the analysis and decision-making process.

Pre-Processing & Cleaning

Transforming and refining the acquired data to ensure consistency, accuracy, and readiness for analysis.

Analysis & Visualization

Visualization techniques are used to present these findings in a clear and intuitive manner, aiding understanding and decision-making

Visualization



Pre-Processing for Machine Learning

Further refining and preparing the data specifically for machine learning tasks, including feature engineering, scaling, and encoding, to optimize model performance.

Machine learning

Building and training machine learning algorithms on the pre-processed data to develop predictive or descriptive models that address the business problem or objective.

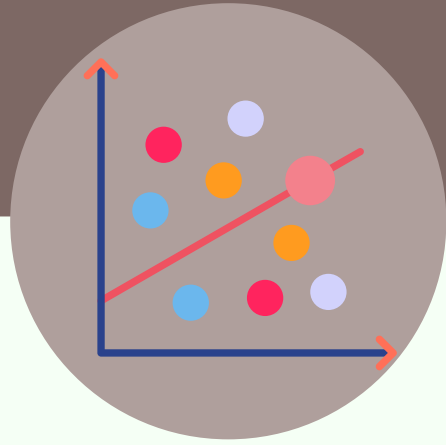
Final Product

A user-friendly web interface that integrates the trained machine learning model, allowing users to interact with and benefit from the model's predictions or insights.



PART-02





Correlation



**Deriving New
Columns**



Label Encoding



One Hot Encoding



Feature Importance



**Principal Component
Analysis**

Pre-Processing for ML

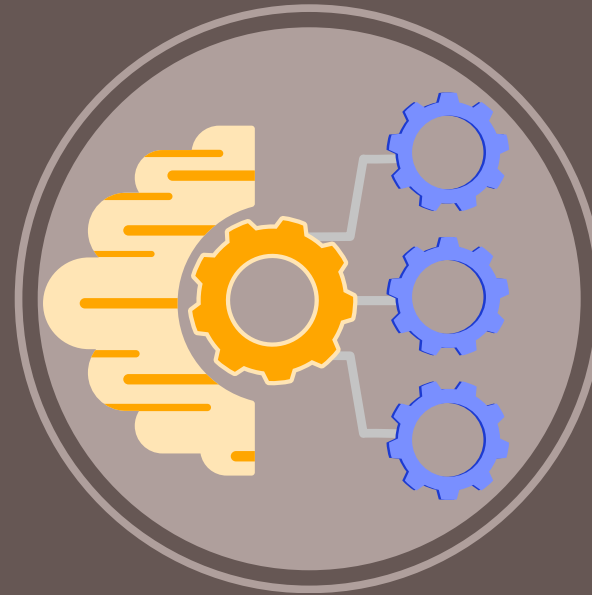
Machine Learning



Base Model



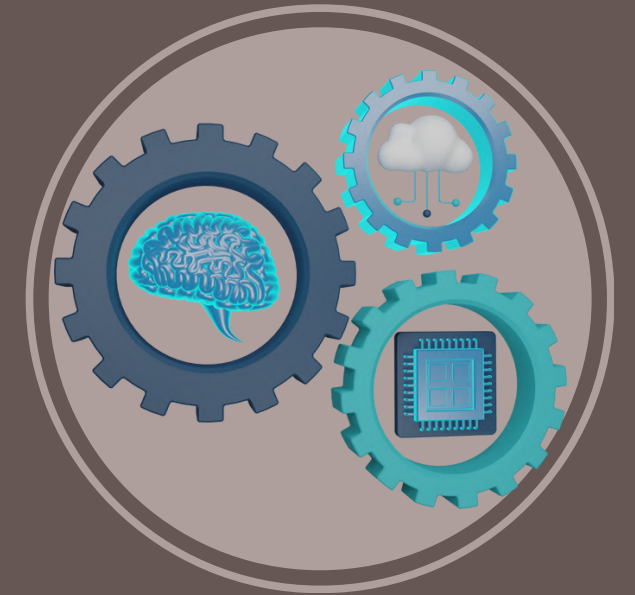
Identifying the
Best Model



Hyperparameter
Tuning



Finalizing the
Model



Applying on
Unseen Data

Final Product

Multi Mart Retail Store

Is the Customer Active?

☐ Yes ☐ No

provided by customer ?



rated by the customer ?

s made by the customer ?

f customer visits ?

Reset

Multi Mart Retail Store

Limitations

Is the Customer Active?

☐ Yes ☐ No

What was the last feedback provided by customer ?

01

Generalization to other domains

The model developed as part of this capstone project may be tailored specifically to the retail domain and may not generalize well to other industries or contexts. Applying the model to different domains without appropriate adjustments and validations may lead to unreliable predictions.

02

Data availability and quality

The effectiveness of the machine learning model heavily relies on the availability and quality of data. Limited or incomplete data regarding customer purchases, feedback, and activity may hinder the model's ability to make accurate predictions.

03

Ethical considerations

Machine learning models, especially those used for predictive purposes, may raise ethical concerns regarding privacy, bias, and fairness. It's essential to ensure that the data collection, model development, and deployment processes adhere to ethical standards and regulations to mitigate potential risks and biases.

Predict

Reset



Thank You

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