Velammal institute of technology

113321106030 – Gunasekar

113321106033 – Hridai jain

113321106035 – Jagadeesan

113321106050 – Mehandhan

## Sentiment analysis for marketing

Data Collection:

* Gather the customers feedback data related to the competitor products.
* This data can be gathered from the various sources such as social media , online review , customer surveys , customer support interaction.
* These dates about the competitor’s product can also be collected from the expert’s review.

Data Preprocessing :

* Clean the text data by removing special characters, punctuation, and irrelevant information.
* Tokenize the text into words or phrases.
* Remove stop words (common words like "the," "and," "is") as they don't carry sentiment information.
* Perform stemming or lemmatization to reduce words to their base form

Sentiment Analysis Techniques:

* Split the dataset into training, validation, and test sets.
* Train the selected model using the training data and fine-tune hyper parameters.
* Apply the trained model to the customer feedback data to predict sentiments for each piece of feedback

Feature Extraction:

* Extract important features or keywords associated with positive and negative sentiments using techniques like TF-IDF or word embeddings

Visualization :

* Visualize sentiment trends over time or across different products.
* Identify common themes or topics associated with positive and negative sentiments using topic modeling or clustering techniques

Insights Generation :

* Compare the sentiment analysis results for competitor products to identify strengths and weaknesses.

* Look for patterns such as recurring complaints or praise.
* Provide actionable insights to the company based on the sentiment analysis results. For example, suggest product improvements, marketing strategies, or areas for competitive advantage.