INTEL PRODUCTS SENTIMENTAL ANALYSIS FROM ONLINE REVIEWS

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PRESENTED BY

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INTRODUCTION:

Sentiment analysis involves assessing the emotional tone of text, categorizing it as positive, negative, or neutral to gauge opinions or attitudes expressed. This project performs sentiment analysis on Amazon reviews of Intel processors, categorizing feedback into Very Positive, Positive, Neutral, Negative, and Very Negative using natural language processing. The analysis identifies prevalent opinions and concerns, providing insights for product development and marketing strategies. Data visualization highlights sentiment distribution, aiding in enhancing product quality and customer satisfaction. The analysis is developed by using the NLP and it's library TextBlob.

ABSTRACT:

This project employs natural language processing to analyse Amazon reviews of Intel processors. The sentiment analysis categorizes feedback into five sentiment classes: Very Positive, Positive, Neutral, Negative, and Very Negative. Through this categorization, the project aims to provide actionable insights into consumer perceptions. Data visualization techniques are utilized to clearly present the sentiment distribution, highlighting significant trends and areas for potential improvement, ultimately aiming to enhance product quality and customer satisfaction.

SENTIMENT ANALYSIS METRIC:

POLARITY ANALYSIS:

Polarity in sentiment analysis assigns numerical values to text, indicating its positivity or negativity on a scale. Values typically range from -1 to +1, where -1 signifies extremely negative sentiment, +1 indicates extremely positive sentiment, and 0 denotes neutral sentiment. This numeric assessment helps businesses gauge customer opinions and sentiments accurately.

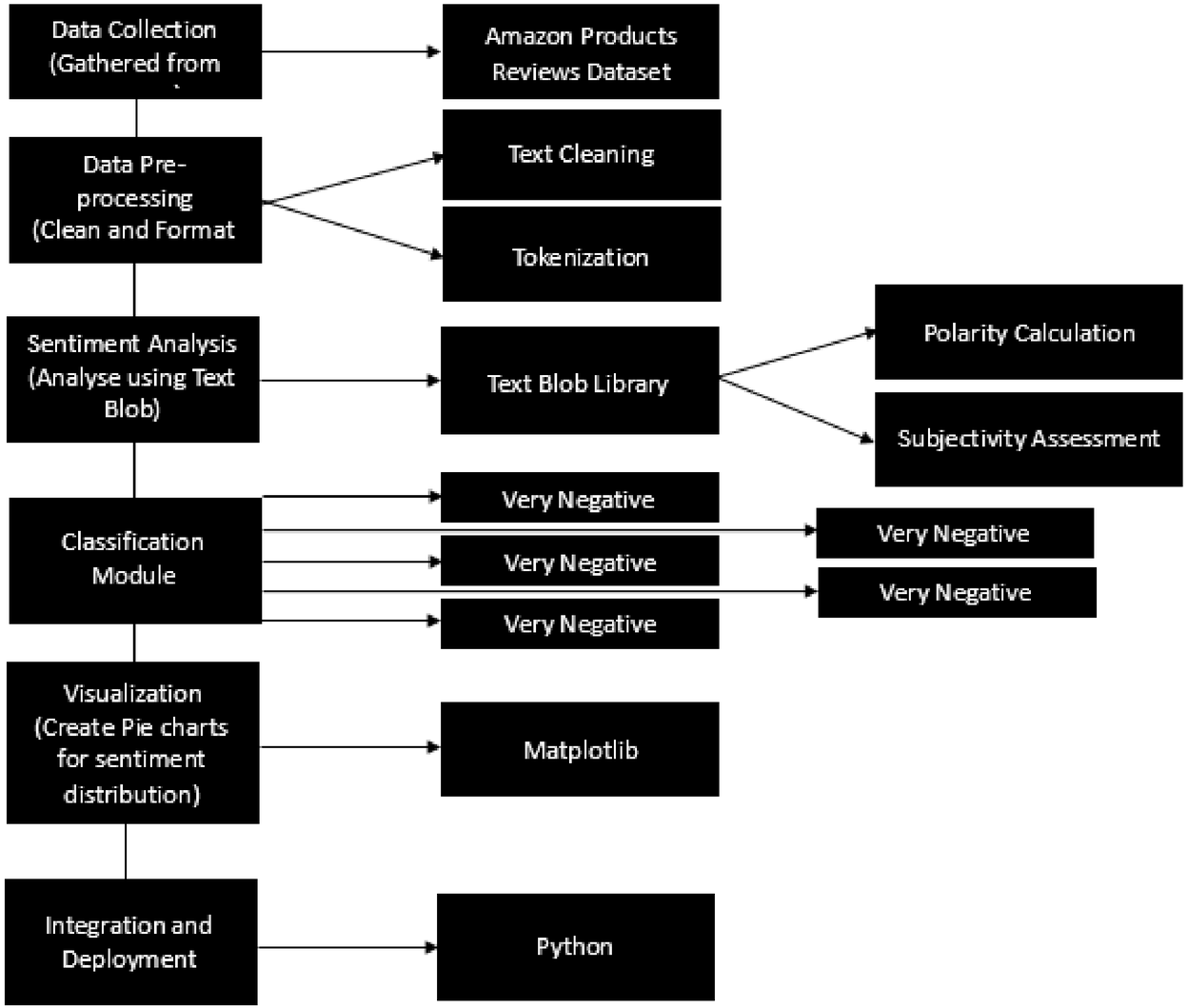
SUBJECTIVITY ASSESMENT:

This project uses TextBlob to measure the subjectivity of Amazon reviews, indicating how much personal opinion and emotion are expressed. It helps differentiate between factual and opinion-based feedback, offering insights into customer sentiments to refine products and marketing strategies effectively.

SENTIMENT CLASSIFICATIONS:

- **Very Negative**:
  Polarity score < -0.5
- **Negative**:
  -0.5 <= Polarity score < 0
- **Neutral**:
  Polarity score = 0
- **Positive**:
  0 < Polarity score <= 0.5
- **Very Positive**:
  Polarity score > 0.5

ARCHITECTURE DIAGRAM:



CONCLUSION:

This sentiment analysis project effectively leverages TextBlob to analyse Amazon reviews of Intel processors, categorizing customer feedback into distinct sentiment classes. The insights gained from this analysis provide valuable information on customer opinions, helping businesses understand areas of strength and opportunities for improvement. By automating the sentiment analysis process, the project efficiently handles large volumes of reviews, making it a practical tool for enhancing product quality and customer satisfaction. The visual representations of sentiment distribution further aid in strategic decision-making and marketing strategies.