

# Problem Statement

**Title:** Intel Products Sentiment Analysis from Online Reviews

## Objective

The primary objective of this project is to analyze the online customer review about the Intel Products, Develop a model that accurately classifies online reviews as positive, negative, or neutral with a minimum accuracy of 85%. Gather reviews from various online sources such as e-commerce websites, tech forums, and social media platforms. Preprocess the collected data to remove any irrelevant information, such as advertisements or unrelated comments. Use natural language processing (NLP) techniques to analyze the sentiment of the reviews. Analyze the sentiment associated with specific aspects of Intel products, such as performance, price, and customer support.

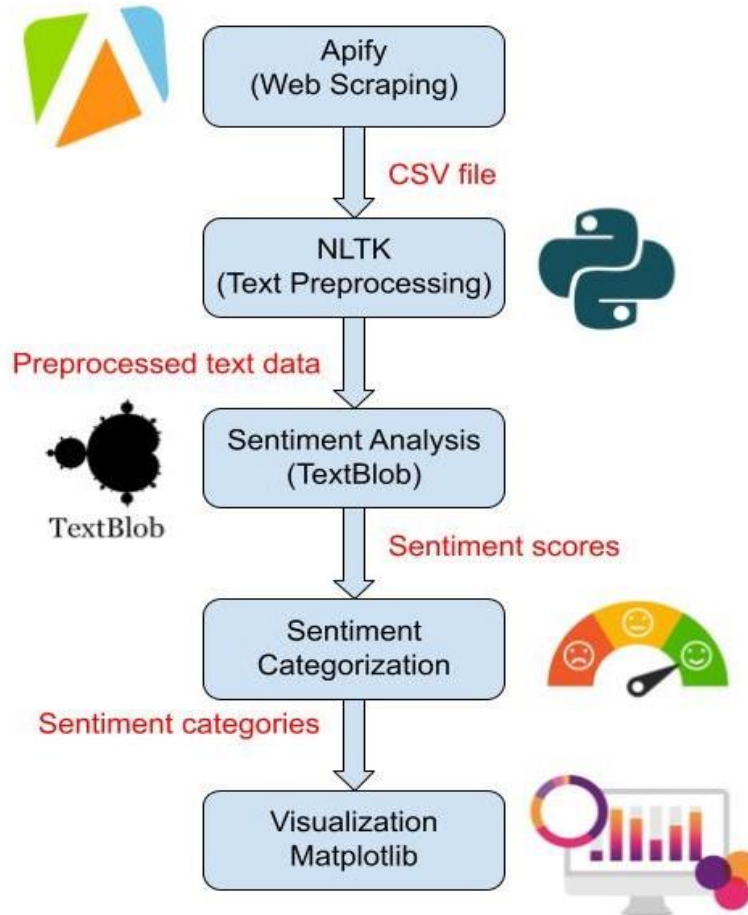
# Unique Idea Brief (Solution)

Conduct sentiment analysis on Intel product reviews to gauge customer sentiment. Load and inspect the dataset to identify the review text column. Clean and preprocess the reviews by tokenizing, removing stopwords, and lemmatizing. Calculate sentiment polarity scores using TextBlob. Classify reviews into Positive, Negative, and Neutral categories based on sentiment scores. Plot the sentiment distribution to visualize customer sentiment trends. Calculate and display the percentage of each sentiment category. Print sentiment and compound scores for individual reviews to identify common themes and trends.

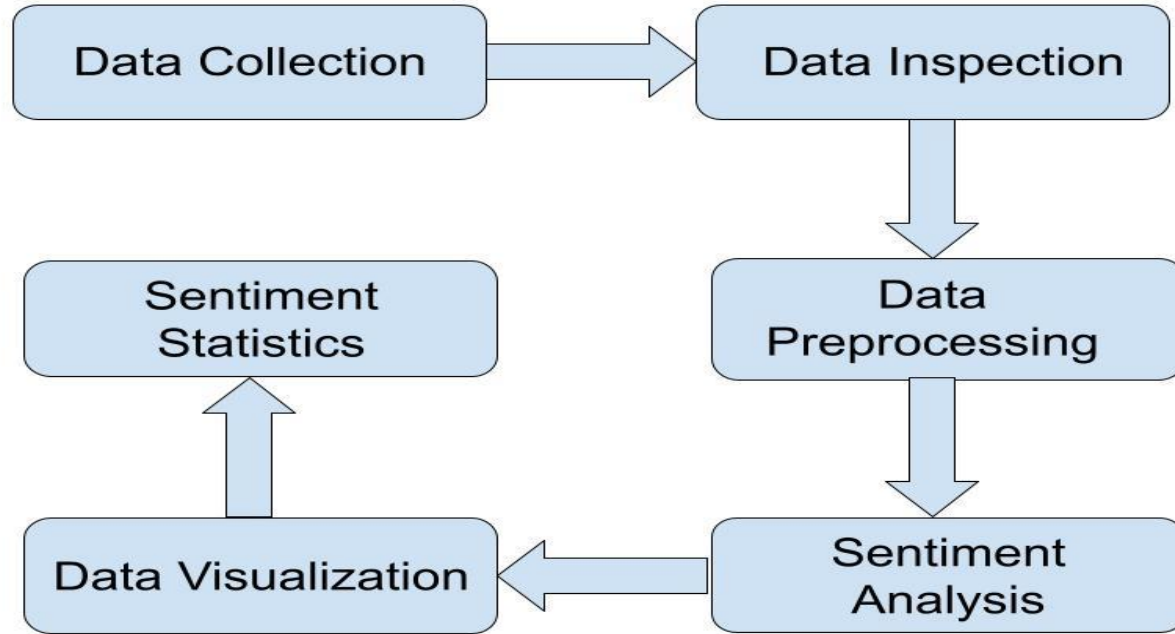
# Features Offered

- Data Collection
- Data Exploration
- Preprocessing
- Sentiment Analysis
- Visualization and Results

# Process flow



# Architecture Diagram



# Technologies used

## 1. Python

Main programming language used for the entire sentiment analysis workflow.

## 2. Pandas

Data manipulation and analysis.

## 3. NumPy

Numerical computing.

## 4. Matplotlib & Seaborn

Data visualization.

## 5. NLTK (Natural Language Toolkit)

Natural language processing (NLP).

## 6. TextBlob

Simplified text processing and sentiment analysis.

## 7. Apify

Data collection

# Conclusion

The sentiment analysis provides valuable insights into customer opinions on Intel products, helping identify strengths and areas for improvement. This analysis can aid in enhancing product development and customer satisfaction strategies.