MILESTONE 2

Milestone 2 Objectives

•**Goal:** Transform cleaned text into quantitative sentiment data.

•**Core Tasks:**

•Integrate the **TextBlob** library for Natural Language Processing (NLP).

•Develop a sentiment scoring function to calculate **Polarity Scores**.

•Categorize reviews into **Positive, Negative, and Neutral** classes.

•Generate a structured output for downstream visualization and LLM analysis.

Technical Implementation

- **NLP Engine:** Utilized TextBlob to analyze the semantic orientation of the cleaned feedback.
- **Logic:**
- **Polarity > 0:** Classified as **Positive**.
- **Polarity < 0:** Classified as **Negative**.
- **Polarity == 0:** Classified as **Neutral**.
- **Data Handling:** Applied the model to the clean_feedback column from Milestone 1 .

RESULTS

Sentiment Category	Record Count	Percentage (%)
Positive	3,504	70.08%
Negative	1,397	27.94%
Neutral	99	1.98%
Total Processed	5,000	100%

End-to-End Workflow Alignment

- **Workflow Stage:** Currently in the **"LLM Analysis & Insight Generation"** phase of the project roadmap.
- **Integration:** Milestone 2 builds directly on the clean data foundation established in Milestone 1.
- **Value Add:** Providing "Sentiment" and "Confidence Scores" as new features enables the system to perform **Semantic Search** and **Retrieval** in the upcoming milestones.

THANK YOU