Project Proposal: AI-Driven Customer Sentiment & Insight System

To: Director, Swan Industries

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Date: January 17, 2026

Subject: Enhancing Customer Satisfaction through Automated Sentiment Analysis

1. Objective

To uphold Swan Group's 46-year legacy of prioritizing customer satisfaction by deploying an AI tool that automatically analyzes social media feedback. This pilot aims to replace manual review with data-driven insights, ensuring the "SWAN" brand remains responsive to market needs.

2. The Problem

As digital interactions increase, manually tracking customer sentiment across platforms like Facebook is inefficient and prone to error. Leadership currently lacks a real-time method to gauge public opinion on specific products (e.g., Orthopedic Mattresses vs. Foam), risking delayed responses to customer grievances or missed market trends.

3. Proposed Solution

I will develop a **Customer Insight System** using Google Colab that processes customer comments (simulated for this pilot) to generate instant analytics.

Key Capabilities:

- **Sentiment Analysis:** Automatically classifies feedback as Positive, Negative, or Neutral to track brand health.
- **Visual Analytics:** Generates **Word Clouds** and **Bag of Words** distributions to instantly visualize high-frequency topics (e.g., "Comfort," "Durability," "Delivery").
- **Auto-Summarization:** Utilizes a Large Language Model (LLM) to read thousands of comments and produce a coherent, human-readable executive summary of customer thoughts.

4. Business Value

- **Efficiency:** Reduces hours of manual reading to seconds of processing.
- **Quality Control:** Rapidly identifies recurring product complaints (e.g., foam density issues).
- **Strategic Agility:** Provides the Director with an "at-a-glance" report on what customers value most.