



# Tides of Taste: Personalized Seafood Restaurant Insights Phase 3

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# Recap: Business Context



# Motivation & Problem Statement

## For Customers & Tourists (To C):

A seafood recommendation tool can help them discover authentic seafood restaurants that feature locally sourced ingredients and traditional dishes.

## For Restaurant Owners (To B):

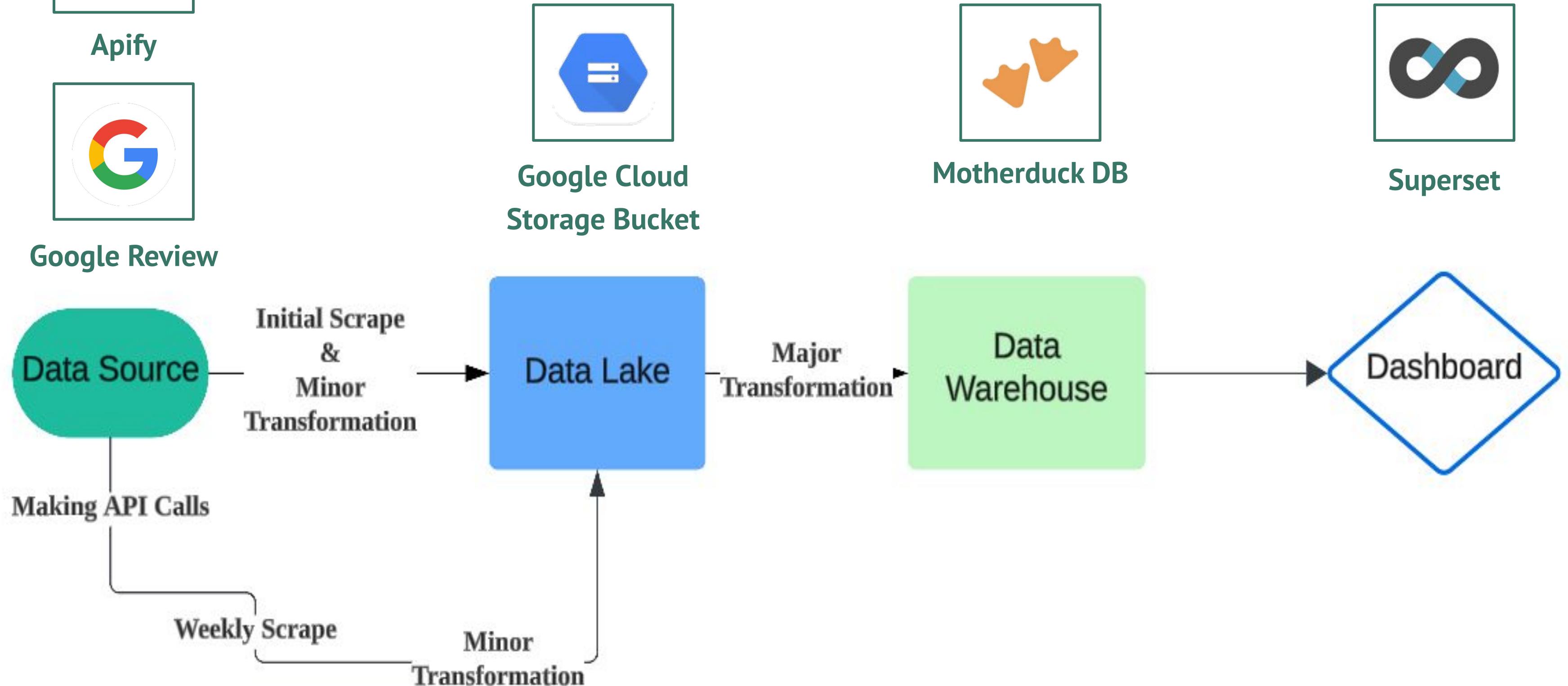
- Competitive Intelligence Gathering
- Market Trend Identification



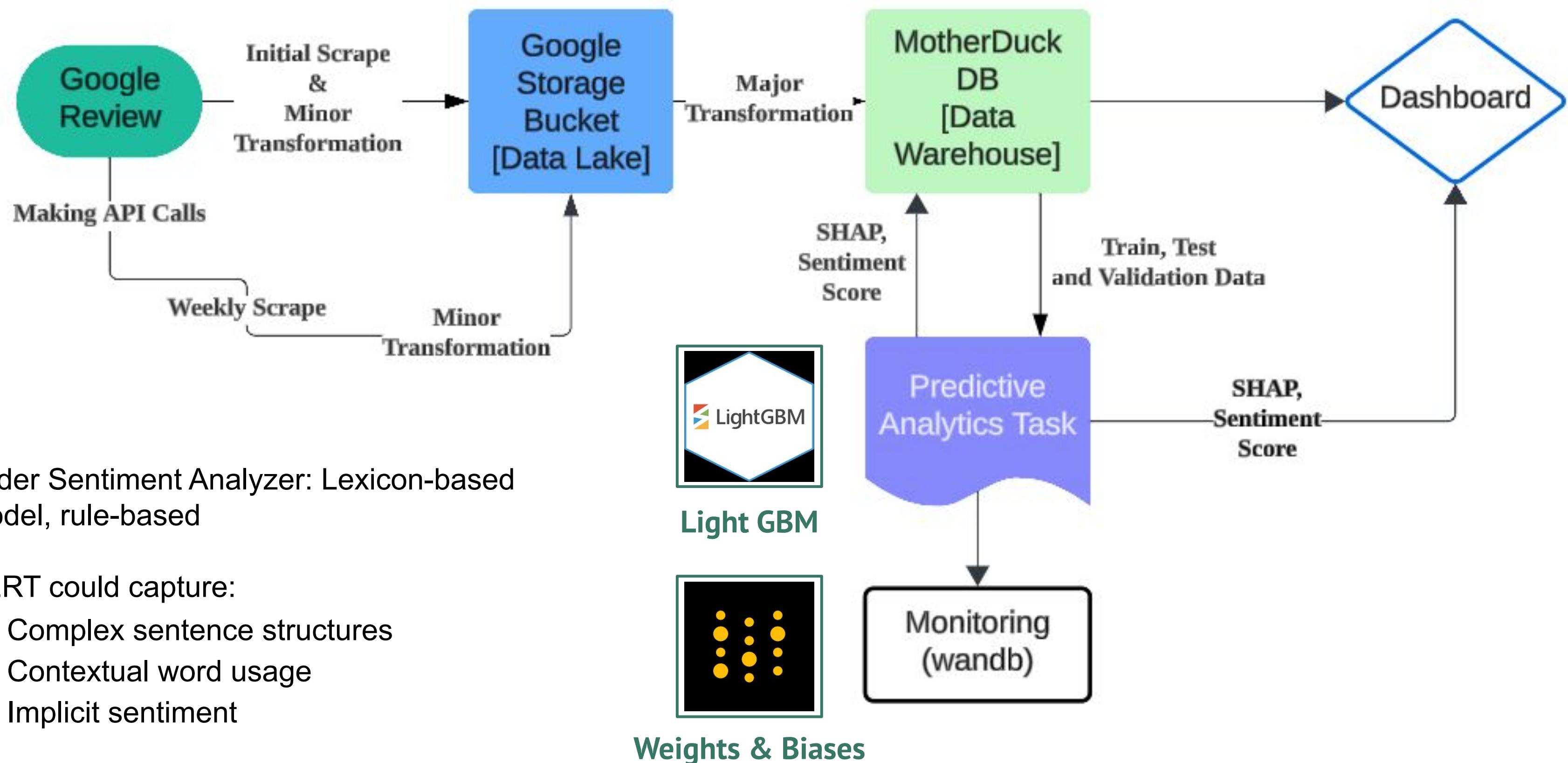
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# Recap: Pipeline Structure

# Phase 1: An EtLT Data Pipeline

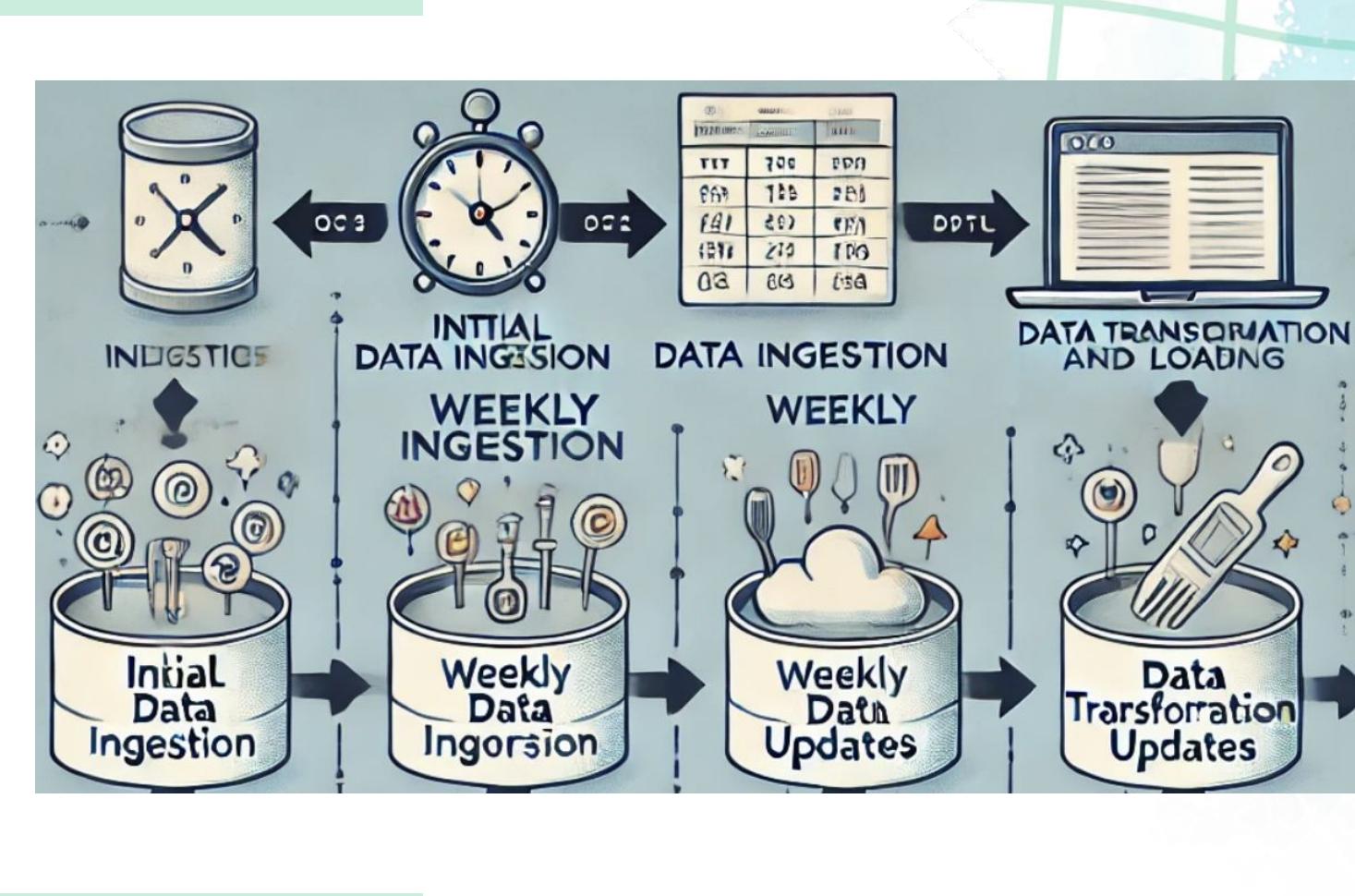


# Phase 2: Pipeline Extension for MLOps



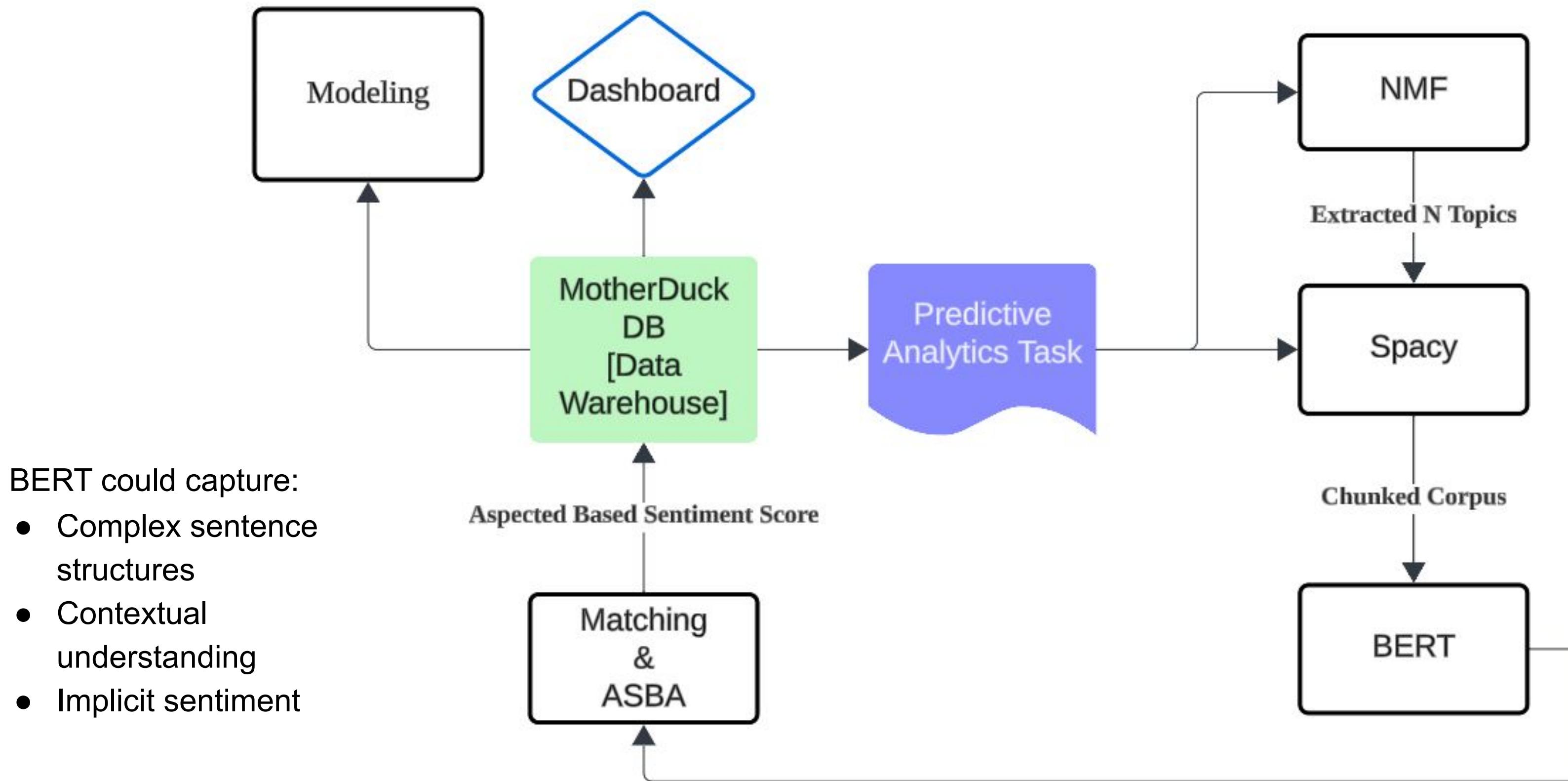
# 3

# What's New?



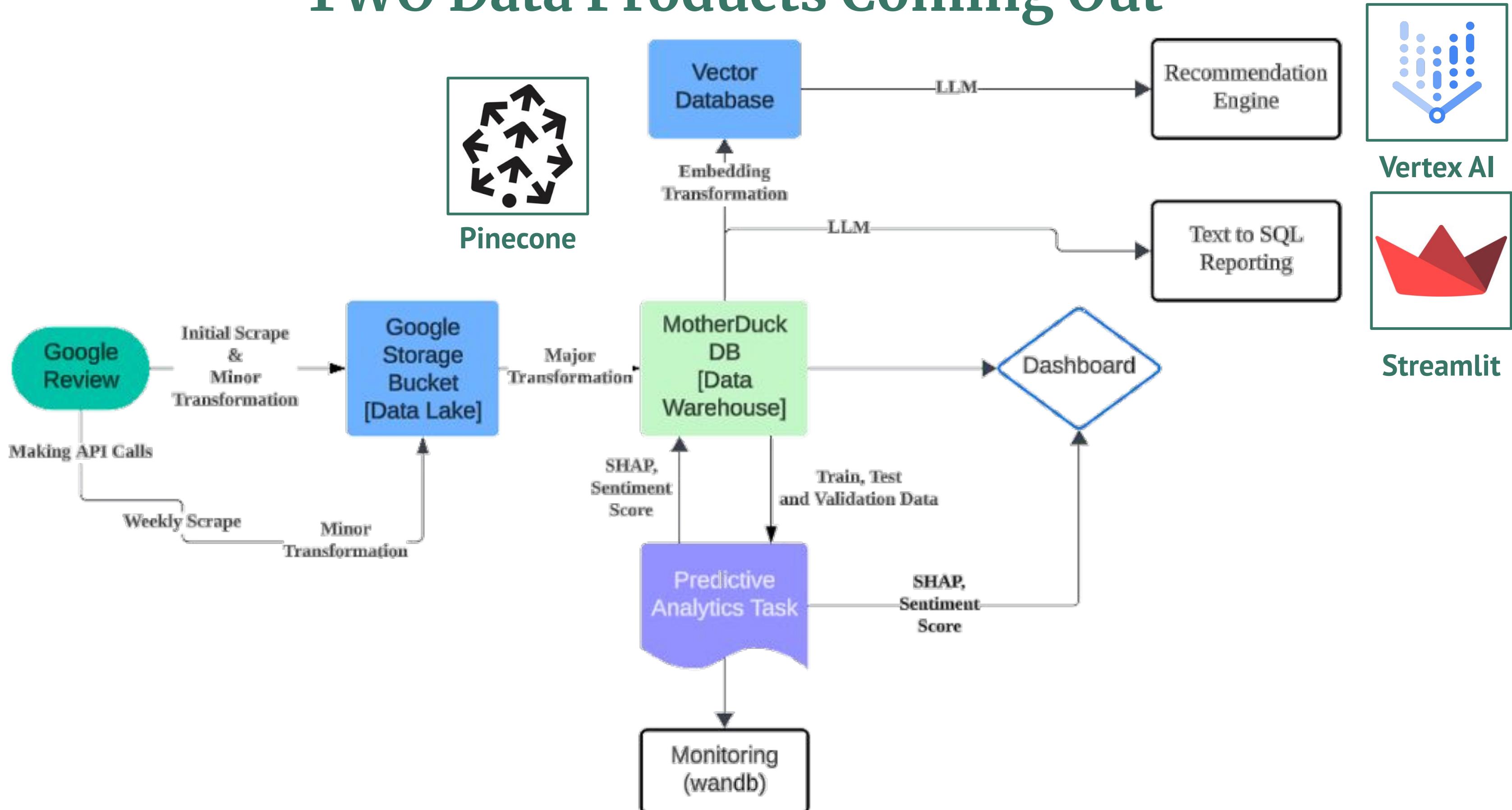
# Phase 2 Update: Pipeline Extension for MLOps

## A Modified Approach for Sentiment Analysis

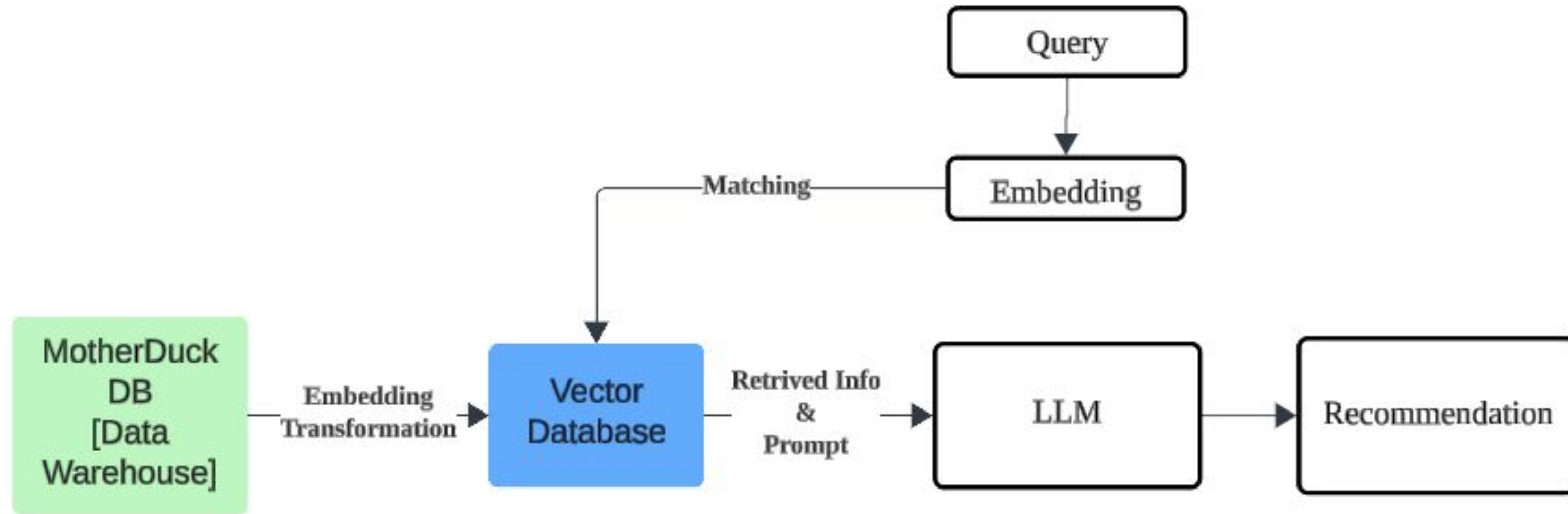


# Phase 3 Update: Pipeline Extension for LLMOps

## TWO Data Products Coming Out

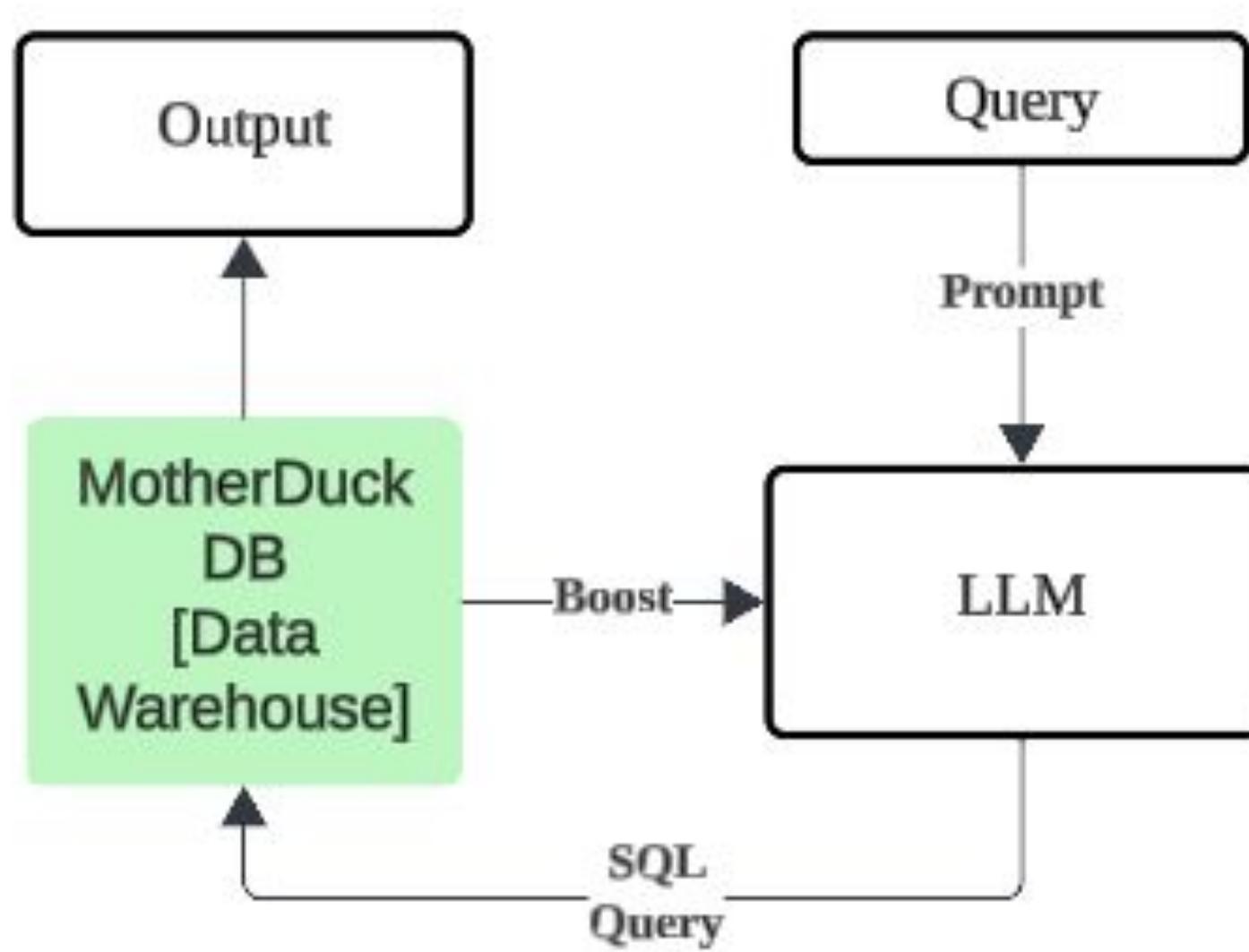


# Phase 3 Update: Recommendation Engine (For Customers)



System Prompt: Add Meta Data as Context, Requiring Reasons & Limitations

# Phase 3 Update: Text2SQL Market Research Tool (For Restaurant Owners)



**System Prompt:** Data Schema & The Definition of Each Column

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# Demo



# Scenarios

## Restaurant Recommendation App (To C)

- I'm a tourist visiting Boston, currently at Boston Public library, I'm hungry, and I'd like to have a seafood dinner. Do you have any recommendations?
- I'm a Boston local looking for a seafood restaurant. Can you recommend a spot with friendly staff, affordable prices (around \$50-\$100 per person)?
- My family wants to celebrate my mom's birthday at a seafood restaurant. Can you recommend a place with good service, a nice atmosphere, and family-friendly vibes, not too far from downtown?

## Restaurant Text-to-SQL App (To B)

- Can you give me the top 10 restaurants with the highest number of reviews?
- Can you find the top 5 restaurants with the highest average star rating?
- How many reviews were published for each restaurant in October?

# Challenges & Potential Improvements

- Data & Information: We only have review/reviewer and basic information of the restaurants, but we might need more (like menu, precise address....)
- Sentiment Analysis: We might need to experiment more combinations of topic modeling & sentiment analyzer
- Streamlit: Better UI (?), more functionalities & filters



# Thanks For Listening!