### MICHIGAN STATE UNIVERSITY

### **Beta Presentation**

**Cereal Industry Analysis Tool using Generative AI** 

### The Capstone Experience

### Team WK Kellogg Co

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From Students... ...to Professionals

### **Project Overview**

- Automate Analysis of Financial Statements
  - WK Kellogg Co
  - Industry Competition
- Organize Documents into Categories
- Train and Compare AI Models to Answer Complex Questions
- Deliver Actionable Summaries
- Cloud Hosted Web App Connected to Models

# System Architecture

	Back end	Front end
Public Datasets	Snowflake Database LLM's	Streamlit Cloud Web App
	Python SQL	Kellogg Analysts
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## Home Page

### WK Kellogg & Ask KAI!

### Hi! I am Kai, your Cereal Industry Analysis Tool

Please select a question or type your own to begin.



The Capstone Experience

## **Response and Response Summary**

#### Save Note

Export Notes as PDF

#### Export Chat

Export Chat as PDF

Export Summary

Export Summary as PDF

#### Response Summary

- The cereal industry's top product categories include readyto-eat cereals, hot cereals, and cereal bars, which generate substantial revenue for major companies such as WK Kellogg Co and General Mills.
- The popularity of these categories can be attributed to factors like convenience, variety, and perceived health benefits, but consumer preferences within these categories can shift due to influences like health trends, e-commerce growth, and concerns over ingredients.
- To maintain and grow market share, companies must anticipate and adapt to changing consumer preferences, demonstrating the importance of staying aware of industry trends and consumer behavior.

### Wh Kellogg & Ask KAI!

What are the top product categories in the cereal industry?

The top product categories in the cereal industry are ready-to-eat cereals, hot cereals, and cereal bars. These categories have consistently generated significant revenue for companies like WK Kellogg Co and General Mills. For instance, in WK Kellogg Co's 2020 annual report, the "Ready-to-Eat Cereal" and "Shacks" segments, which include cereal bars, accounted for over 60% of the company's net sales. Similarly, General Mills' "North America Retail" segment, which includes ready-to-eat cereals, hot cereals, and cereal bars, accounted for about 70% of the company's net sales in fiscal 2020.

These categories are popular due to their convenience, variety, and perceived health benefits. However, consumer preferences within these categories can change over time, influenced by factors such as health trends, e-commerce growth, and concerns regarding product ingredients. Companies must anticipate and adapt to these changes to maintain and grow their market share.



# Note Taking

Select your model:

mixtral-8×7b

#### Selected Model: mixtral-8x7b

Mixtral-8×7b is an open-source transformer model, ideal for general text processing tasks such as summarization, classification, and answering questions. It performs well on medium-sized datasets.

Remember chat history?

### Note-Taking

Add a new note:

As per the response from the bot WK Kellogg had higher revenue for the year 2020 than General Mills and both of the companies saw a steady growth in the following year.

Press Ctrl+Enter to apply

×



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## **Model Selection**

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mixtral-8×7b

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Save Note



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# Login Page

WK Hellogg 🗠	Ask KAI!	Logou
Login or Register		
Choose an option		
Username		
Password	•	
Login		
Please login to access the app.		

## What's left to do?

- Features
- Stretch Goals
  - Beer Companies
  - Macroeconomic Impact
- Other Tasks
  - = UI/UX
  - Fine Tuning
  - Bug Fixes

### **Questions?**

