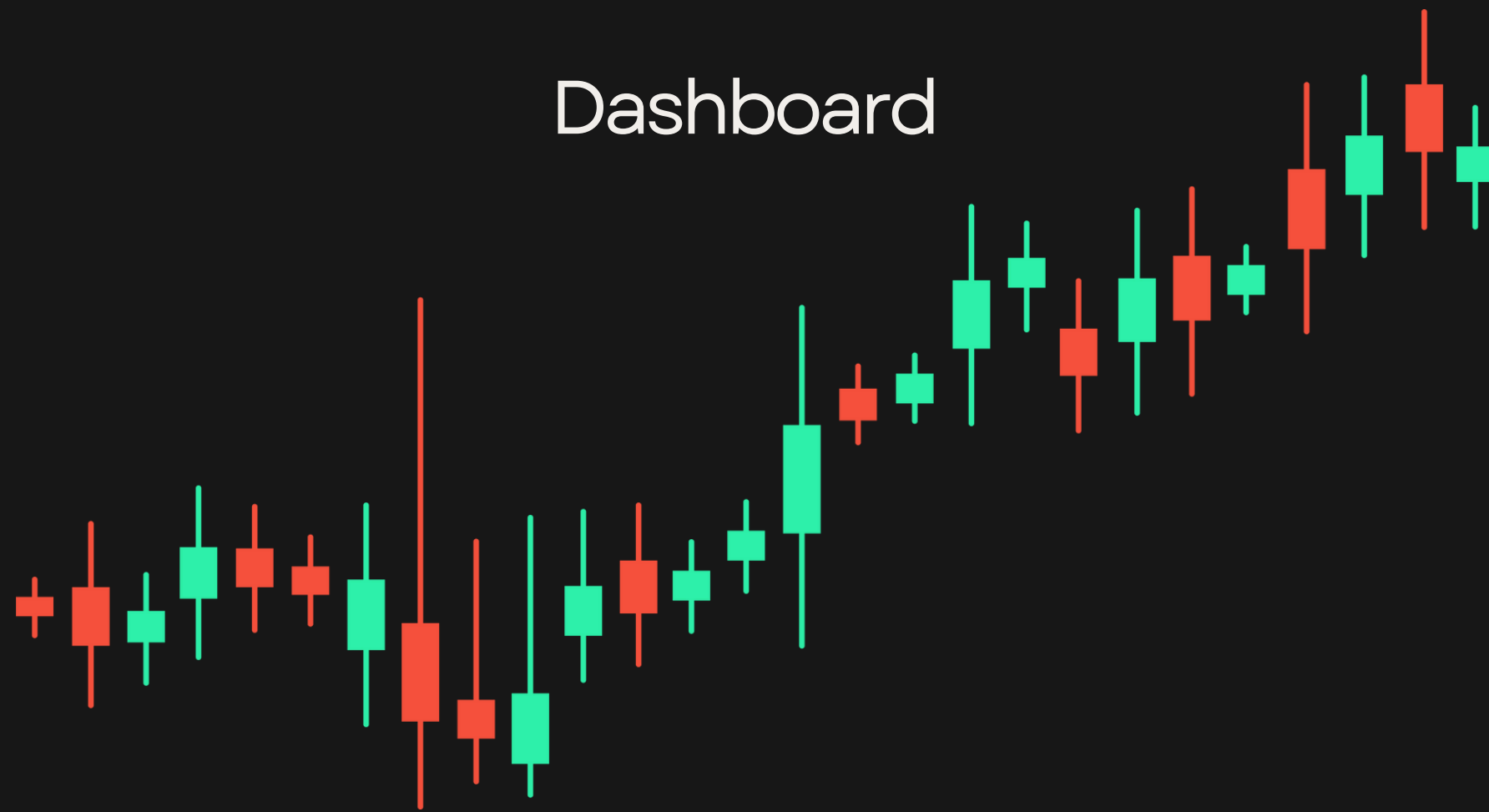


An 'Intelligent'

Stock Market

Dashboard



Team 7

By Jasmine, Rohit, Emelyn (Yumeng), Shayan

What is the Objective



One economic message from the Costco gold bar craze

Gold prices continue to hit fresh records. Here's one possible message from the safe-haven move.

Yahoo Finance • 4 hours ago [COST -0.31%](#) [GLD -0.02%](#)



Dow slides, Nvidia and Apple jump to records

Yahoo Finance • 6 hours ago



Goldman: The S&P 500's decade of big gains is over

Bloomberg • 15 hours ago [^GSPC -0.18%](#)



Musk's million-dollar promises and Harris's record haul heat up '24 race

Yahoo Finance • 8 hours ago [TSLA -0.84%](#)

Report: Trump's policies would jeopardize Social Security

Yahoo Finance • 6 hours ago

Nvidia surges to another record as Wall Street stays bullish

Yahoo Finance • 4 hours ago

[MU -1.86%](#) [TSM +0.58%](#)

CEO: Nike shoots for turnaround with 12-year NBA, WNBA deal

Yahoo Finance • 3 hours ago

[NKE -1.74%](#) [UA -2.78%](#)

Treasury 10-year yields may hit 5% within months: T. Rowe Price

Bloomberg • 18 hours ago

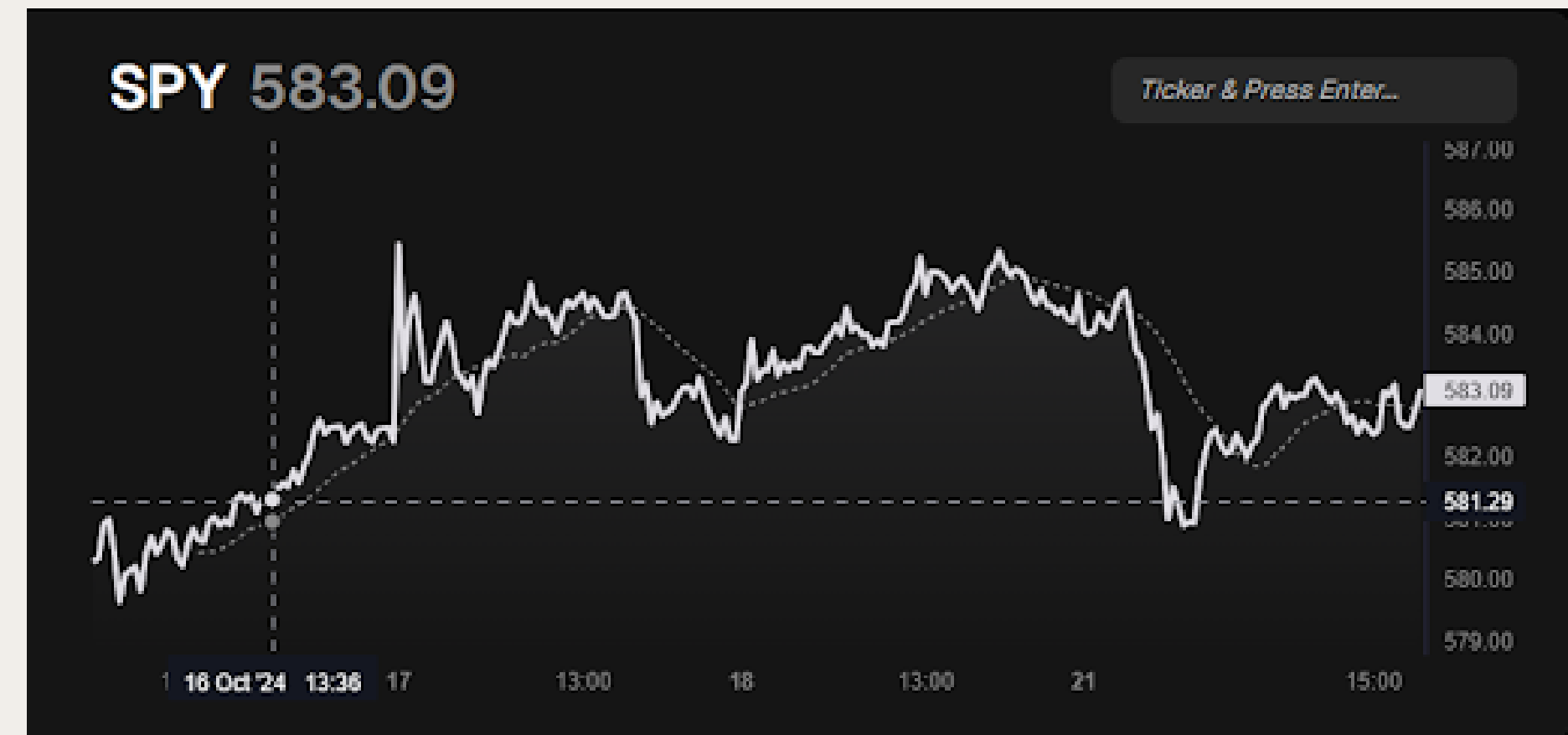
Fed officials call for 'gradual' and 'modest' rate cuts

Yahoo Finance • 5 hours ago

Here's why investors are expecting more upbeat results from GM

Yahoo Finance • 9 hours ago

[GM -0.51%](#) [F -1.98%](#)



Apple (AAPL) likely to
be hit with an
antitrust lawsuit this
week!

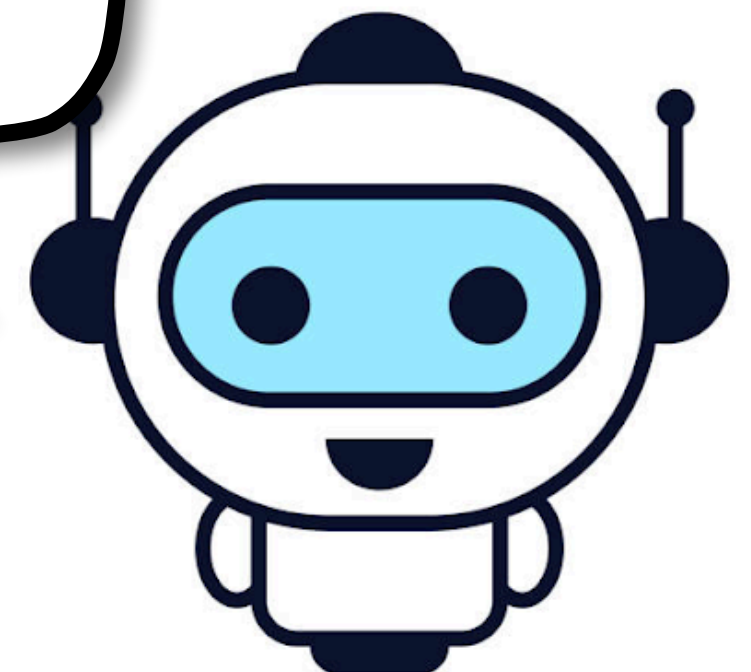
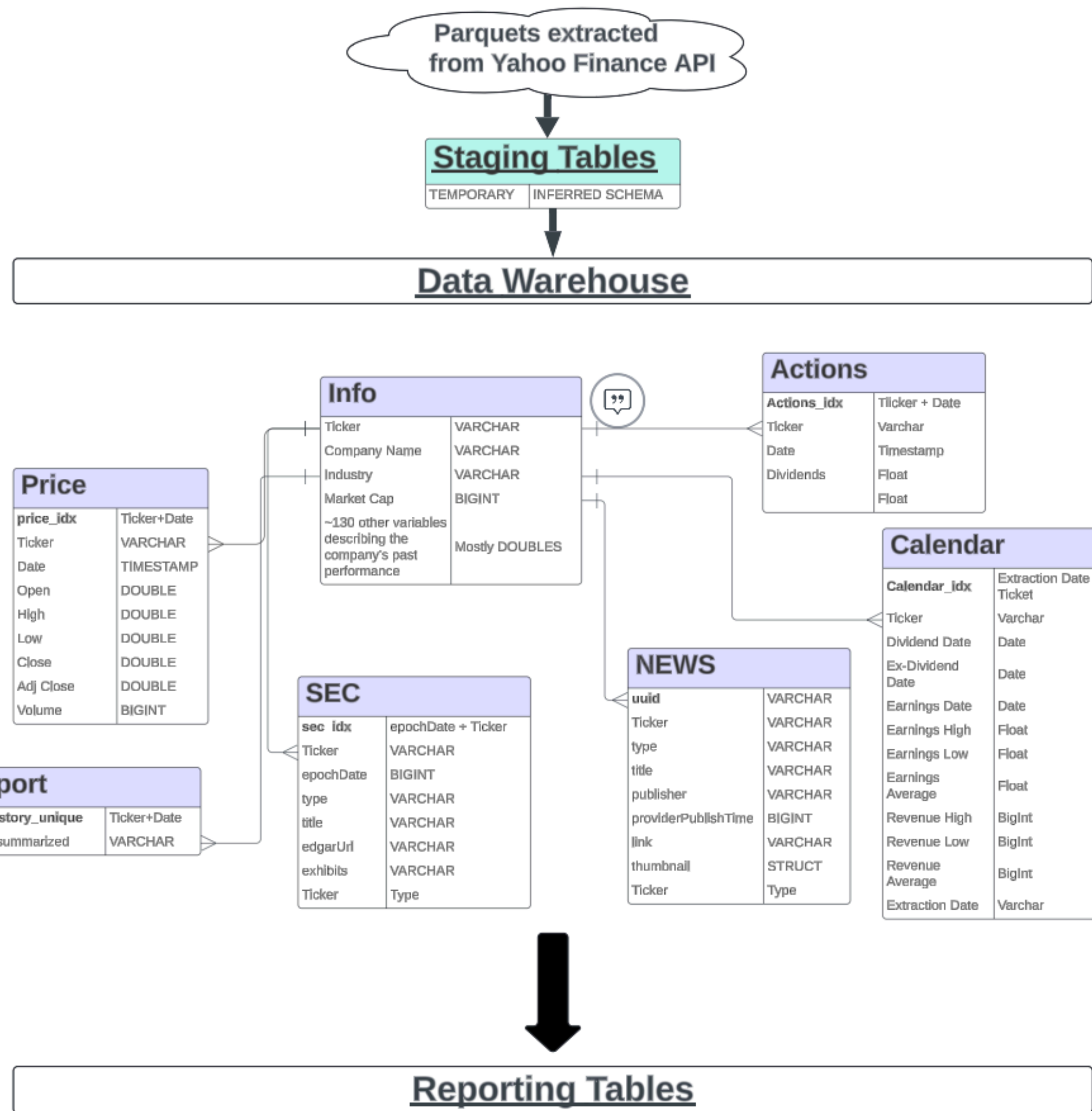


Table of Contents

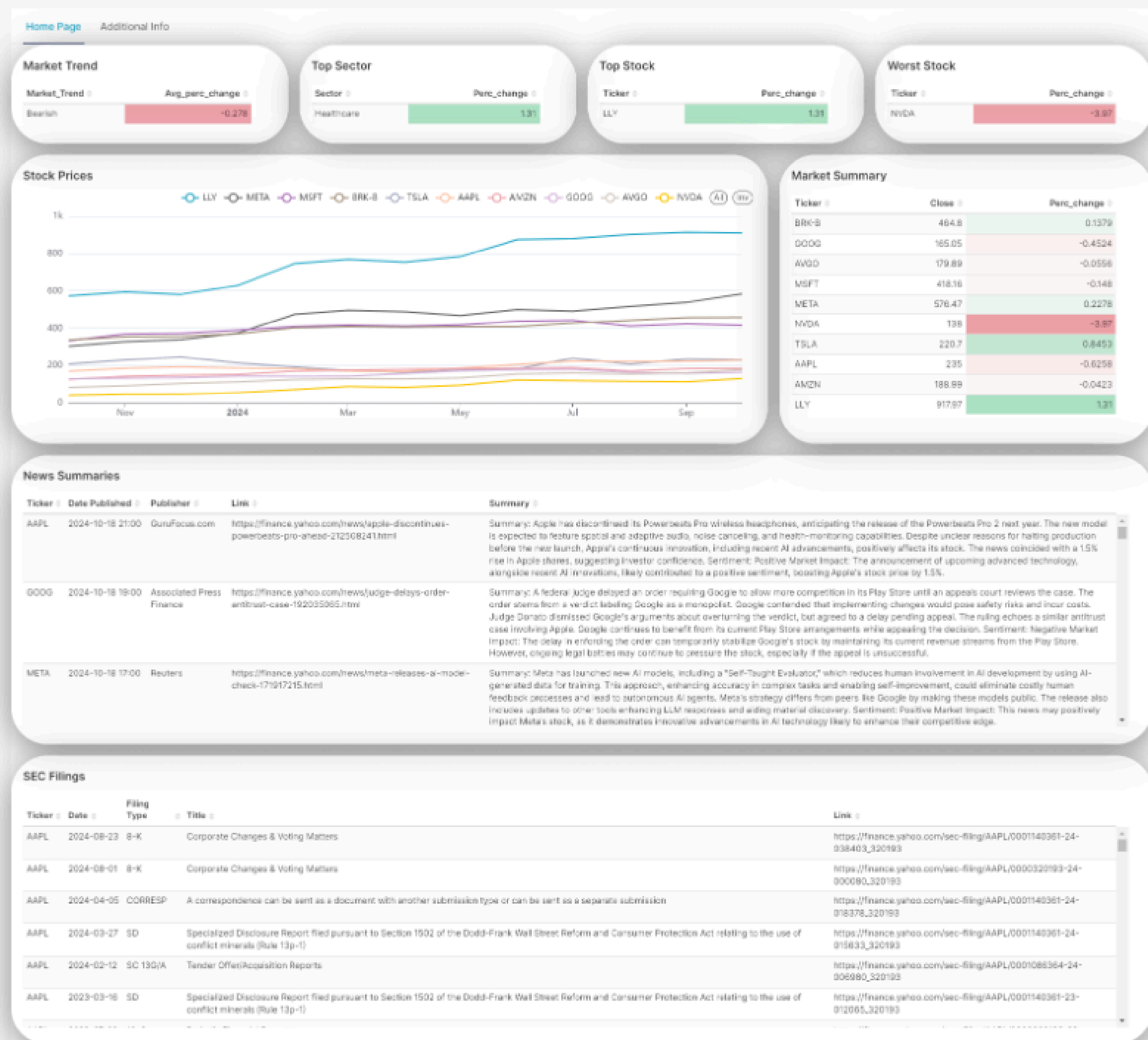
- **Phase I & II Recap**
- **Phase III Overview**
 - **New Pipelines** - News, Newsletter, SEC
 - **Data Product # 1** - Newsletter
 - **Data Product # 2** - SEC RAGbot
- **Roadmap**
- **Challenges**
- **Conclusions**

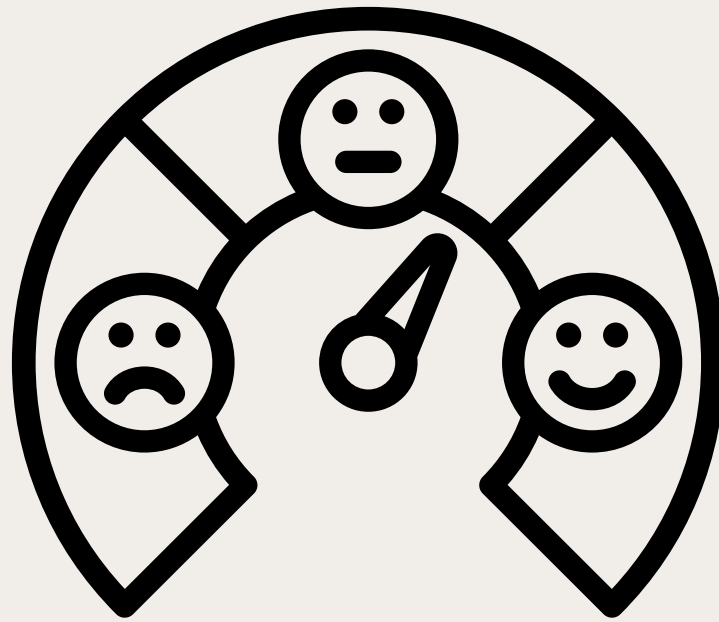




Phase I


- Dashboard Tracking top 10 Stocks
- Automated Daily Pipeline using Yfinance API
- Reporting Via Superset



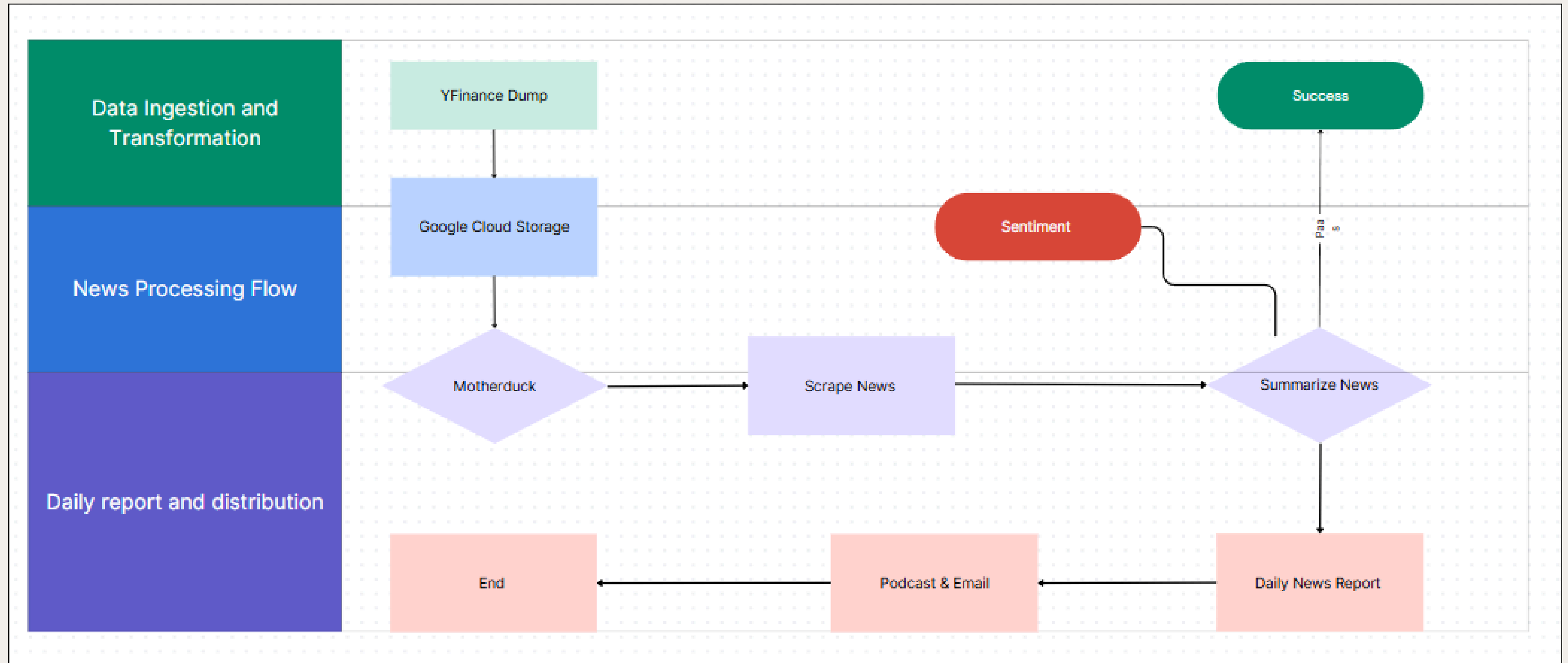


Phase II Recap - Sentiment Analysis

Serverless ML (Previous)	Serverless ML (Current)
Custom-trained model (TF-IDF + Logistic Regression) created using serverless functions.	Uses a pretrained Hugging Face Transformer model for sentiment analysis - Dstilbert-Base-Uncased-Finetuned-sst-2-english
Includes a training process with a serverless cloud function using Kaggle dataset and "title" column	No training involved; leverages Hugging Face's pretrained model, uses the summary column
"Positive", "Negative", "Neutral" based on custom mapping of predictions.	"Positive", "Negative" with confidence scores.

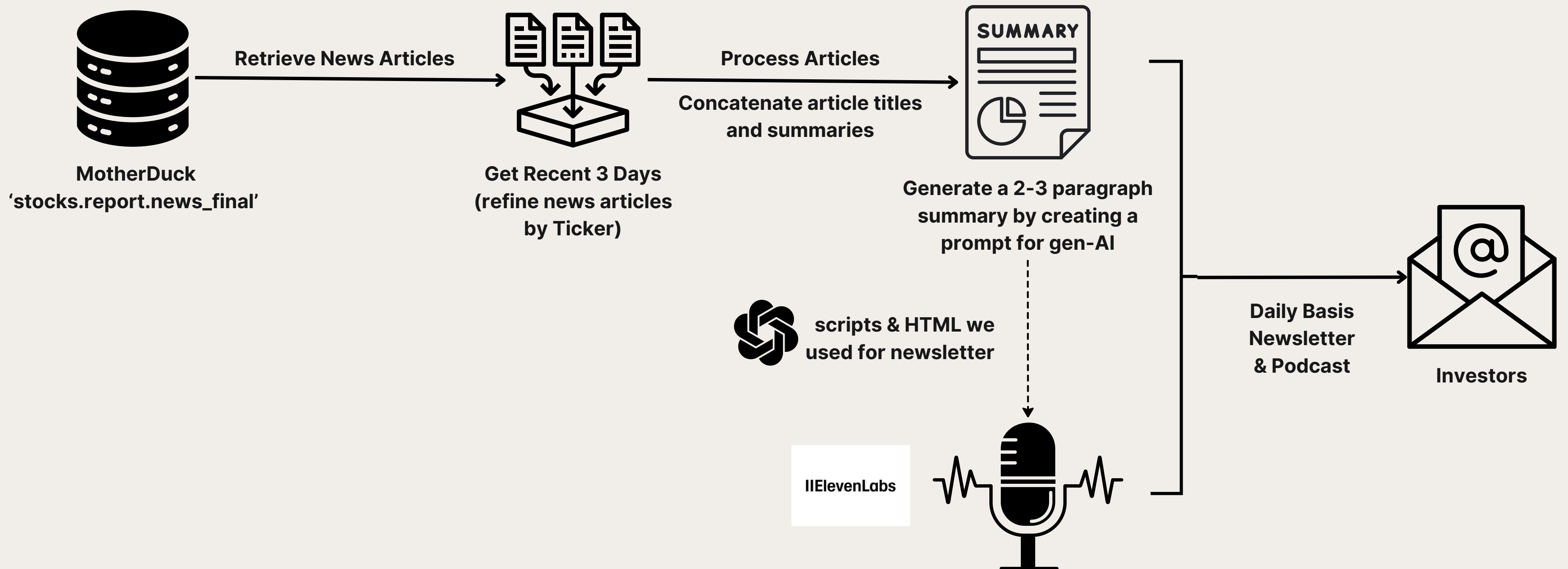
	summary	sentiment_1
	Summary: Apple has discontinued its Powerbeats Pro wireles...	{'label': POSITIVE, 'score': 0.9998629093170166, 'text': Positi
	Summary: iPhone 16 sales in China have risen by 20% year-o...	{'label': NEGATIVE, 'score': 0.9992249011993408, 'text': Neut
	Summary: The article discusses former President Donald Tru...	{'label': POSITIVE, 'score': 0.9998629093170166, 'text': Positi
	Summary: Nvidia continues its dominance in the semiconduct...	{'label': NEGATIVE, 'score': 0.9992249011993408, 'text': Neut
	Summary: OpenAI, supported by Microsoft, has introduced a ...	{'label': POSITIVE, 'score': 0.9998629093170166, 'text': Positi
	Summary: Microsoft and OpenAI have reportedly engaged inv...	{'label': POSITIVE, 'score': 0.9998629093170166, 'text': Positi
	Summary: Prabhakar Raghavan has been appointed as Googl...	{'label': POSITIVE, 'score': 0.9998629093170166, 'text': Positi
	Summary: A federal judge delayed an order requiring Google ...	{'label': NEGATIVE, 'score': 0.9992249011993408, 'text': Neut
	Summary: A federal judge in California temporarily paused an...	{'label': POSITIVE, 'score': 0.9998629093170166, 'text': Positi
	Summary: Google has initiated one of the U.S.'s largest solar ...	{'label': NEGATIVE, 'score': 0.9992249011993408, 'text': Neut
	Summary: Amazon Web Services CEO Matt Garman emphasi...	{'label': POSITIVE, 'score': 0.9998629093170166, 'text': Positi
	Summary: Amazon (AMZN) is facing backlash from supporter...	{'label': POSITIVE, 'score': 0.9998629093170166, 'text': Positi
	Summary: Netflix's stock reaches record highs due to a stron...	{'label': POSITIVE, 'score': 0.9998629093170166, 'text': Positi
	Summary: The article discusses Cathie Wood's ARK Investme...	{'label': POSITIVE, 'score': 0.9998629093170166, 'text': Positi
	Summary: Meta Platforms has introduced new artificial intellig...	{'label': POSITIVE, 'score': 0.9998629093170166, 'text': Positi

New Pipelines



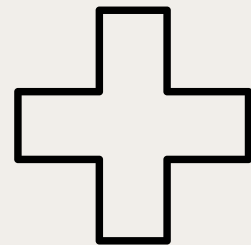
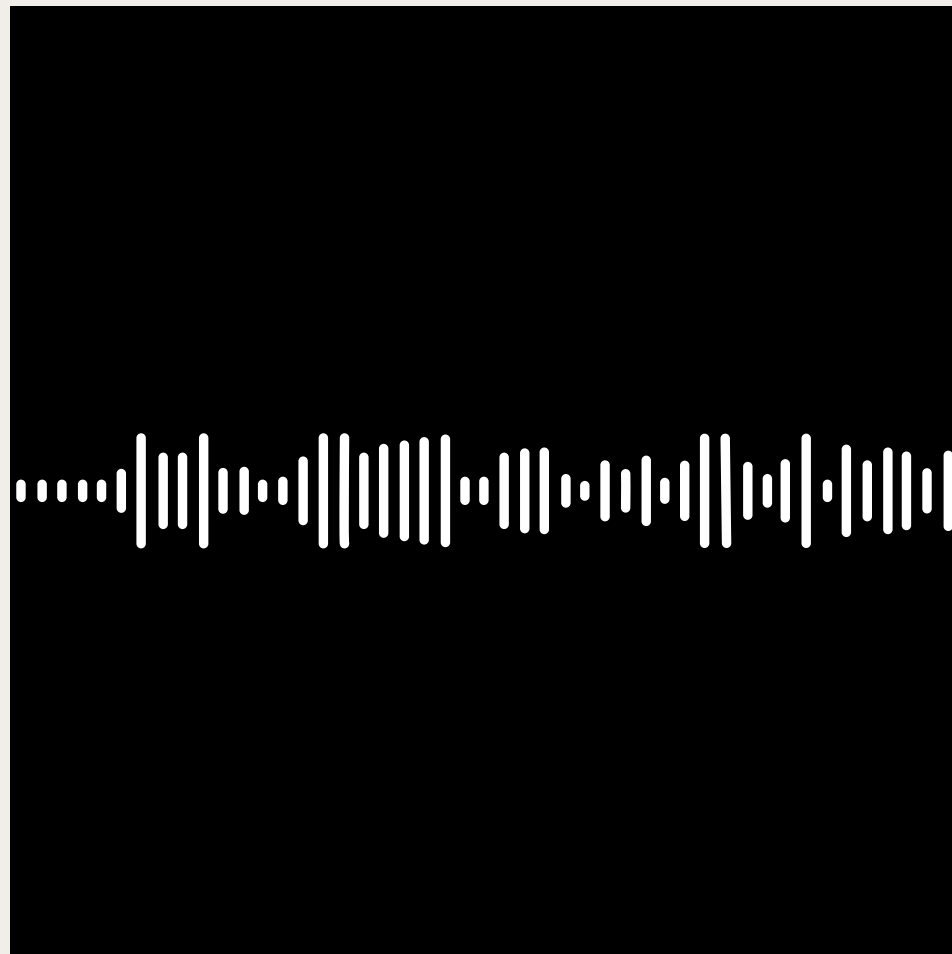
Data Product

- *Newsletter*



Data Product

- *Newsletter Demo!*



BREAKING NEWS

The Markets in Five Minutes or less

Apple Inc. (AAPL): Innovating for the Future

Apple emerges as a top contender in the tech sector, thanks to its advancements in artificial intelligence and a steadfast ecosystem. With plans to integrate AI into upcoming products like iOS 18 and collaborate strategically with AWS, Apple's innovations are expected to bolster investor confidence and impact stock prices positively.

Despite a slight reduction in exposure by AQR Capital Management, Apple remains integral to their strategy. Upcoming ventures, such as the in-house cellular modem chip initiative and expansion plans in Saudi Arabia, highlight future opportunities for autonomy and market growth.

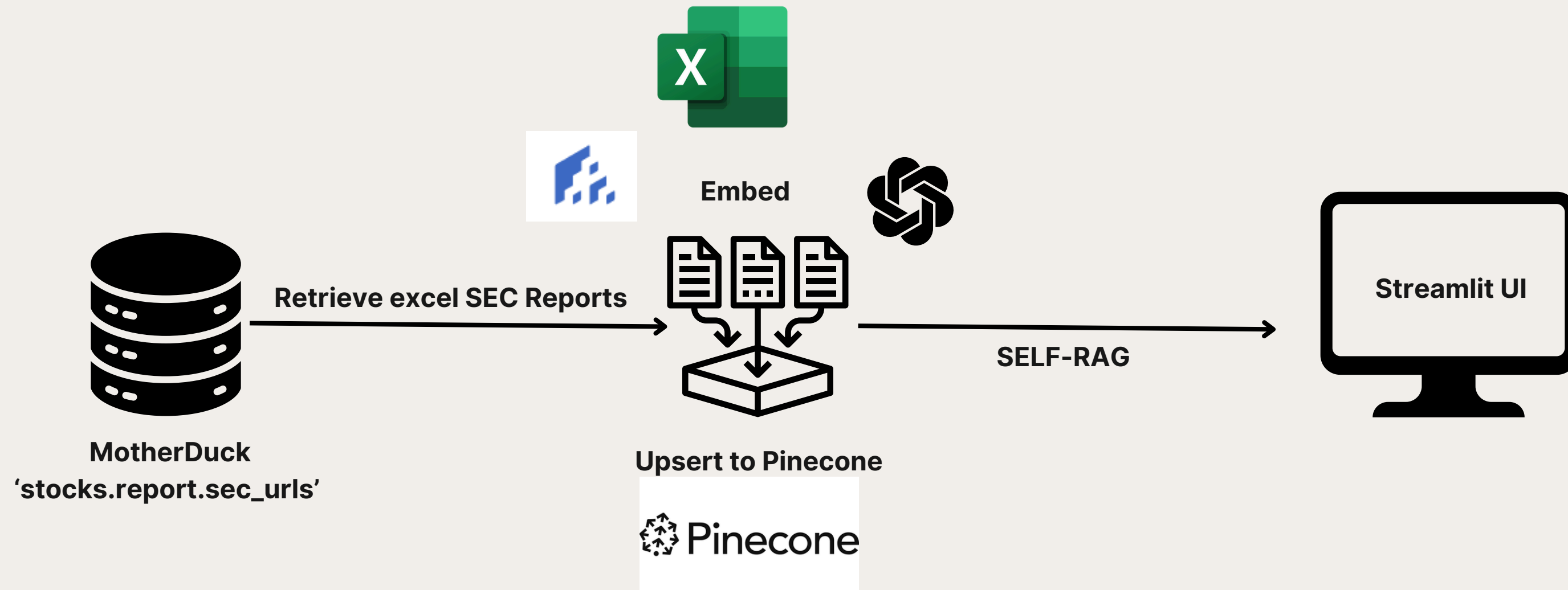
Amazon.com Inc. (AMZN): Leading the AI Charge

Amazon continues to spearhead innovation in AI, emphasized by data center advancements and strategic global partnerships. Its endeavors in drone delivery technology and AWS cloud computing position it favorably for long-term growth, despite chip export restrictions to China.

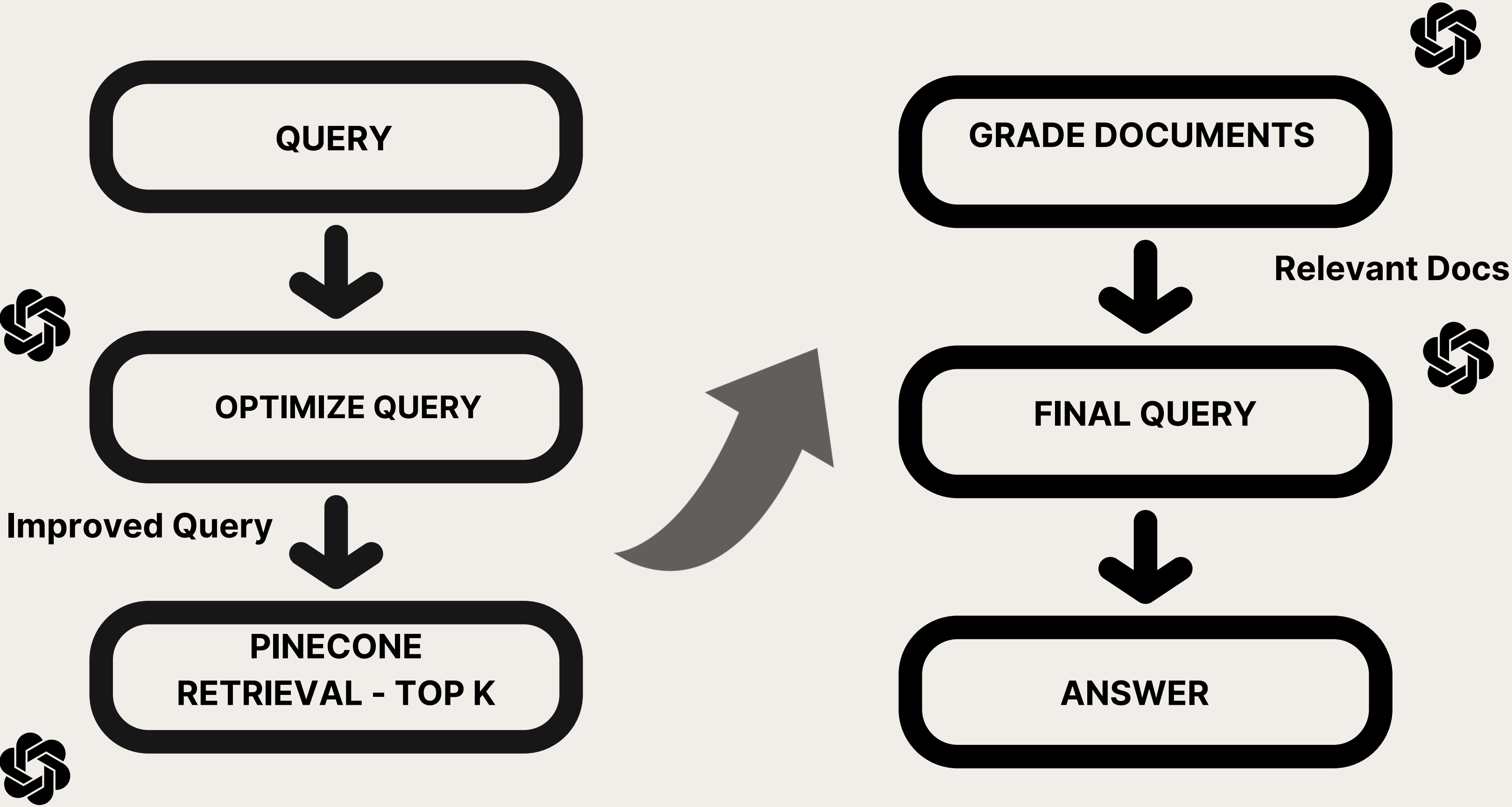
With positive analyst outlooks from financial institutions, Amazon's growth prospects remain promising, making it a long-term investment favorite, particularly for those focusing on AI innovations.

Data Product

- SEC RAG Chatbot

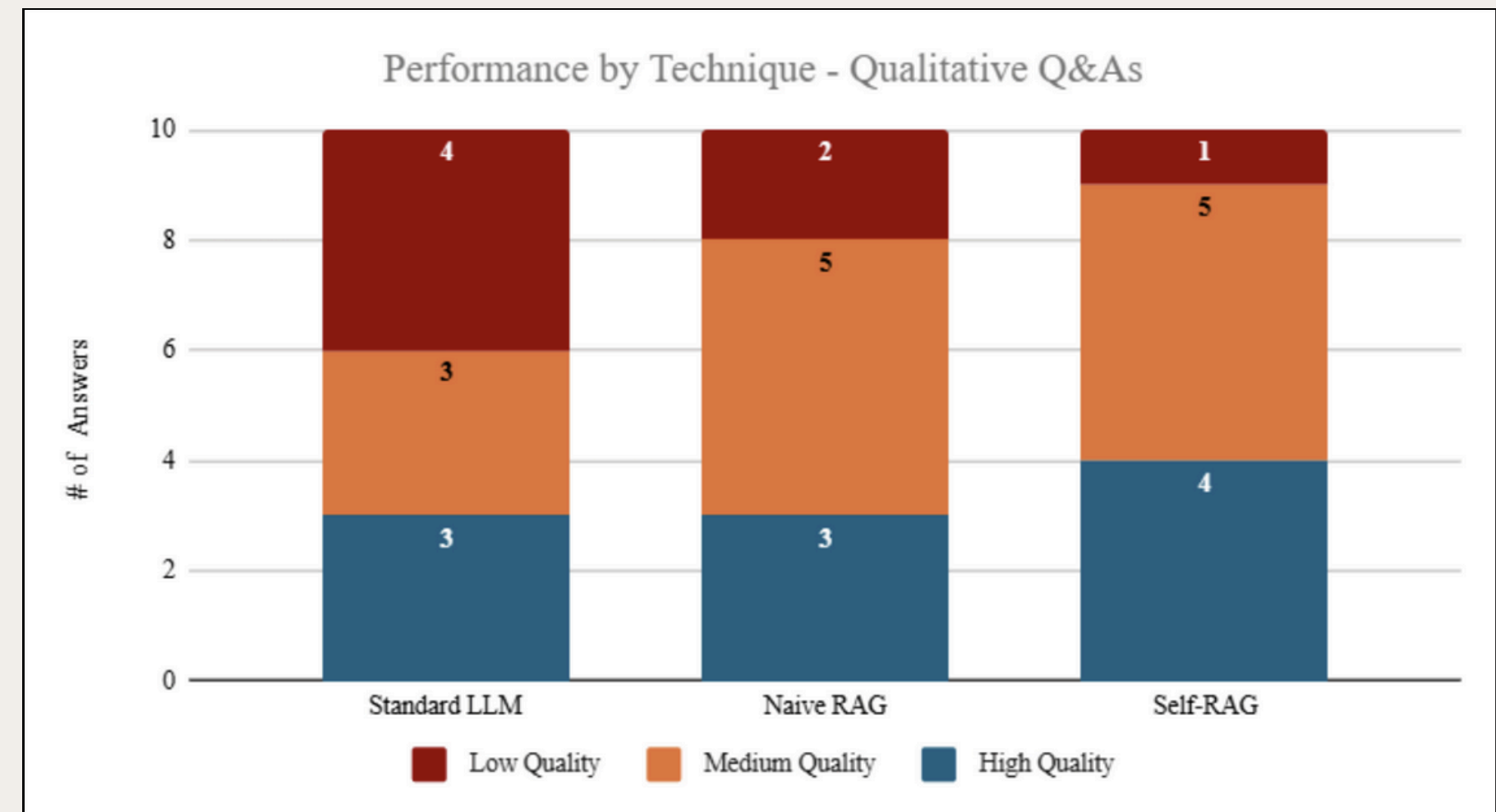
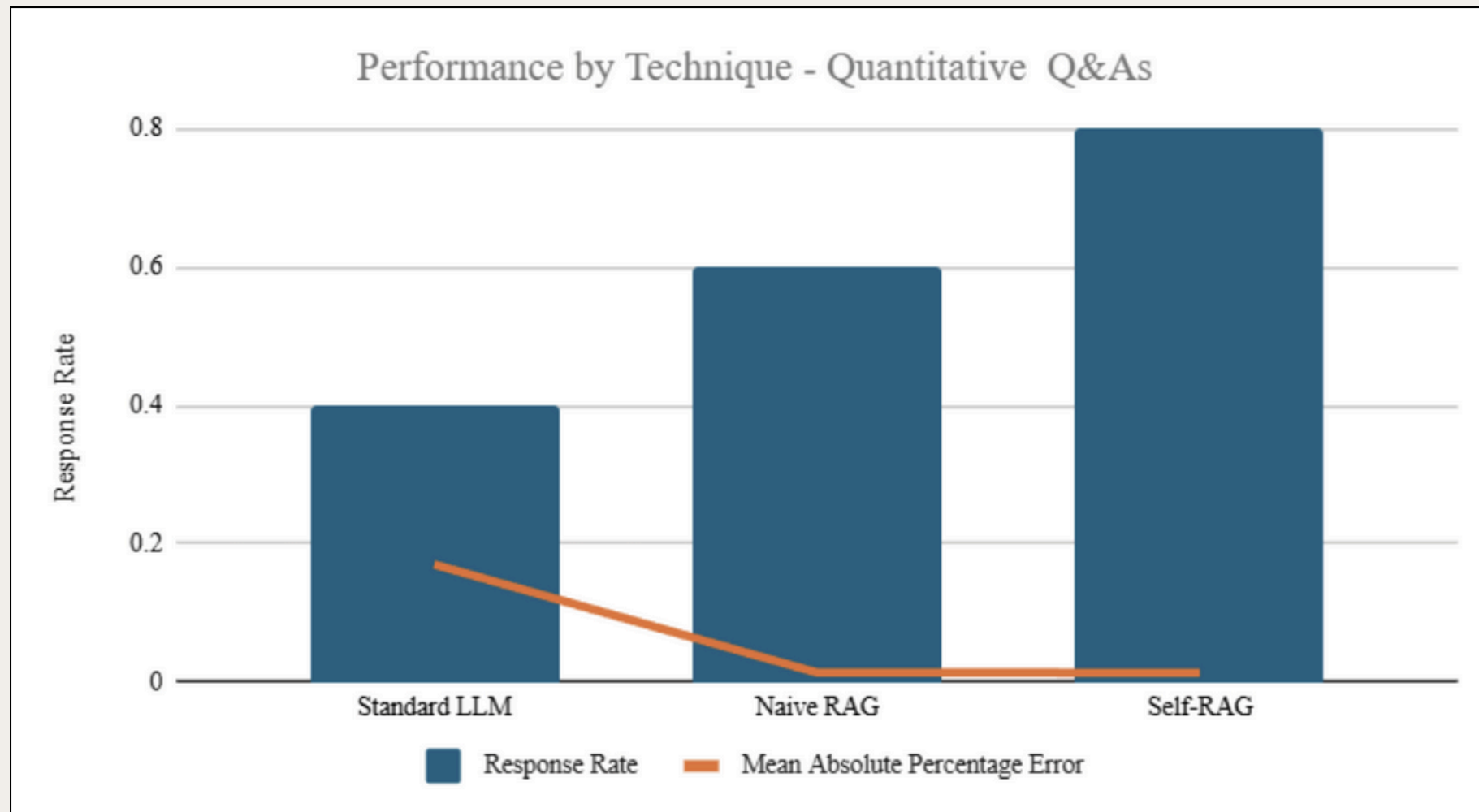


Self RAG



Data Product

- *Benchmark*



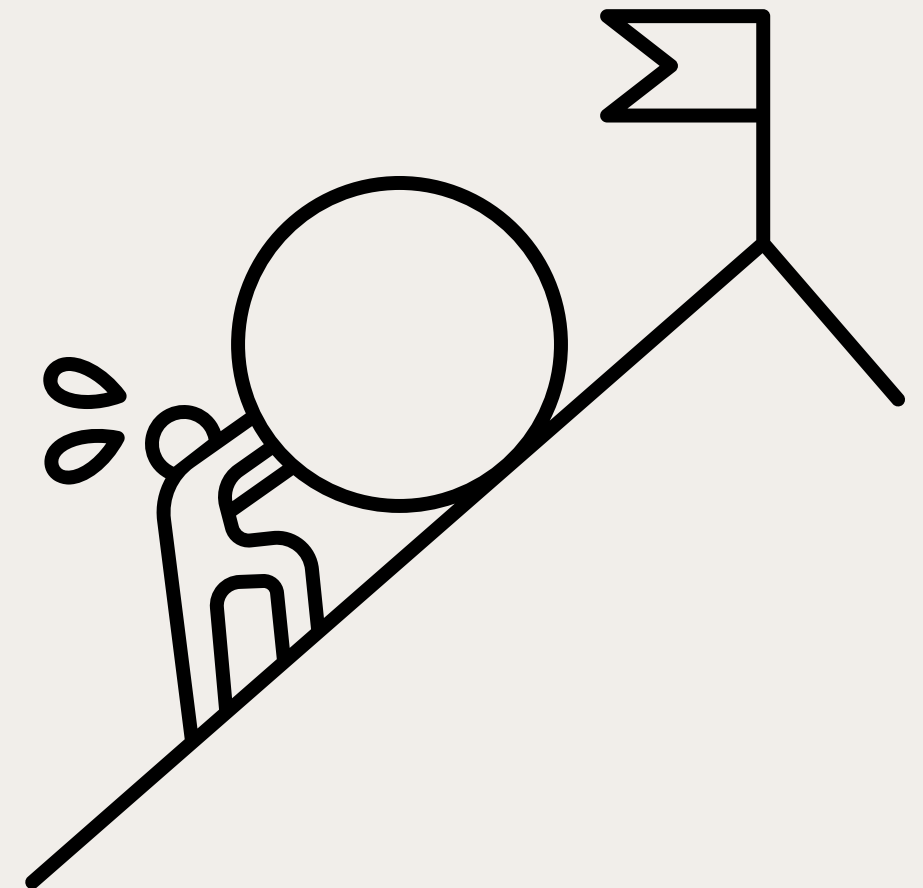
Roadmap

- **SEC RAG Chatbot**
 - expand scope of data
 - Standardizing Financial Years
 - Text2SQL & GraphRAG
- **Newsletter**
 - Expand to more comprehensive overview
 - Add multiple speakers
 - Standardize HTML format
 - Live Stock Price & Article Links



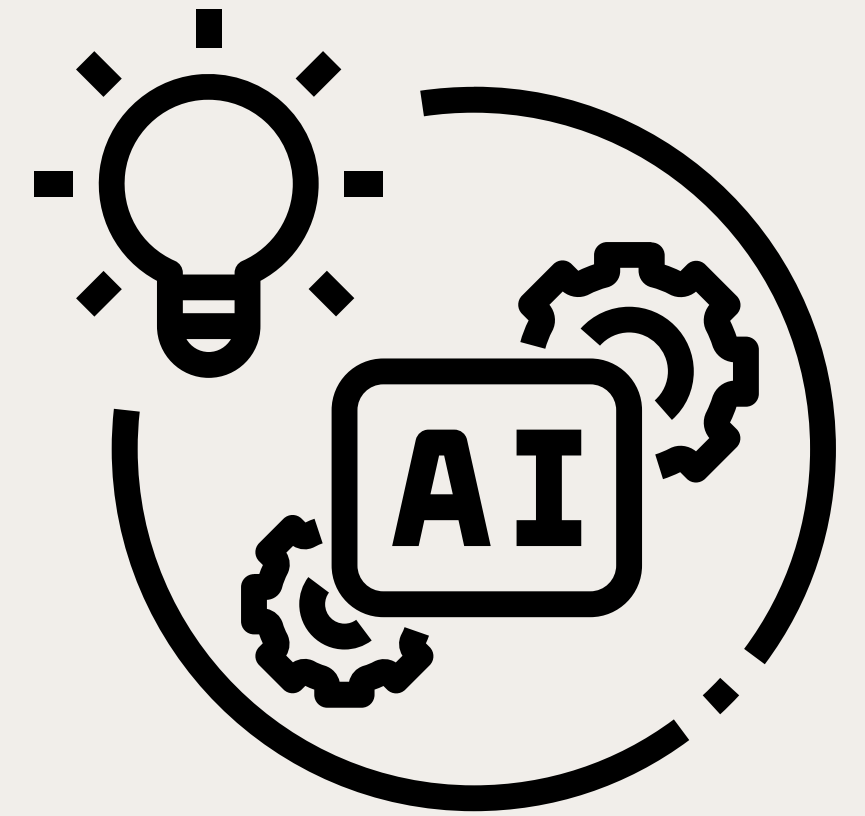
Challenges

- **SEC Pipeline**
 - Rate Limits - SEC & OpenAI
 - Formatting chunks for Embeddings
 - Missing Reports
- **Newsletter**
 - Prompting
 - Inconsistent Performance/Style



Conclusions

- **Comprehensive and Scalable Pipeline:** Built a comprehensive system for processing and data storage.
- **Multi-modal User Engagement:** Enhanced user experience with daily reports and podcasts, providing actionable insights in both written and audio formats.
- **Chatbot for SEC Filings:** Implemented a chatbot using (RAG) to provide quick based on SEC filings.
- **Real World Impact:** Provided a practical, user-centric tool for investors to monitor stock performance and market sentiment effectively.



Thank You

