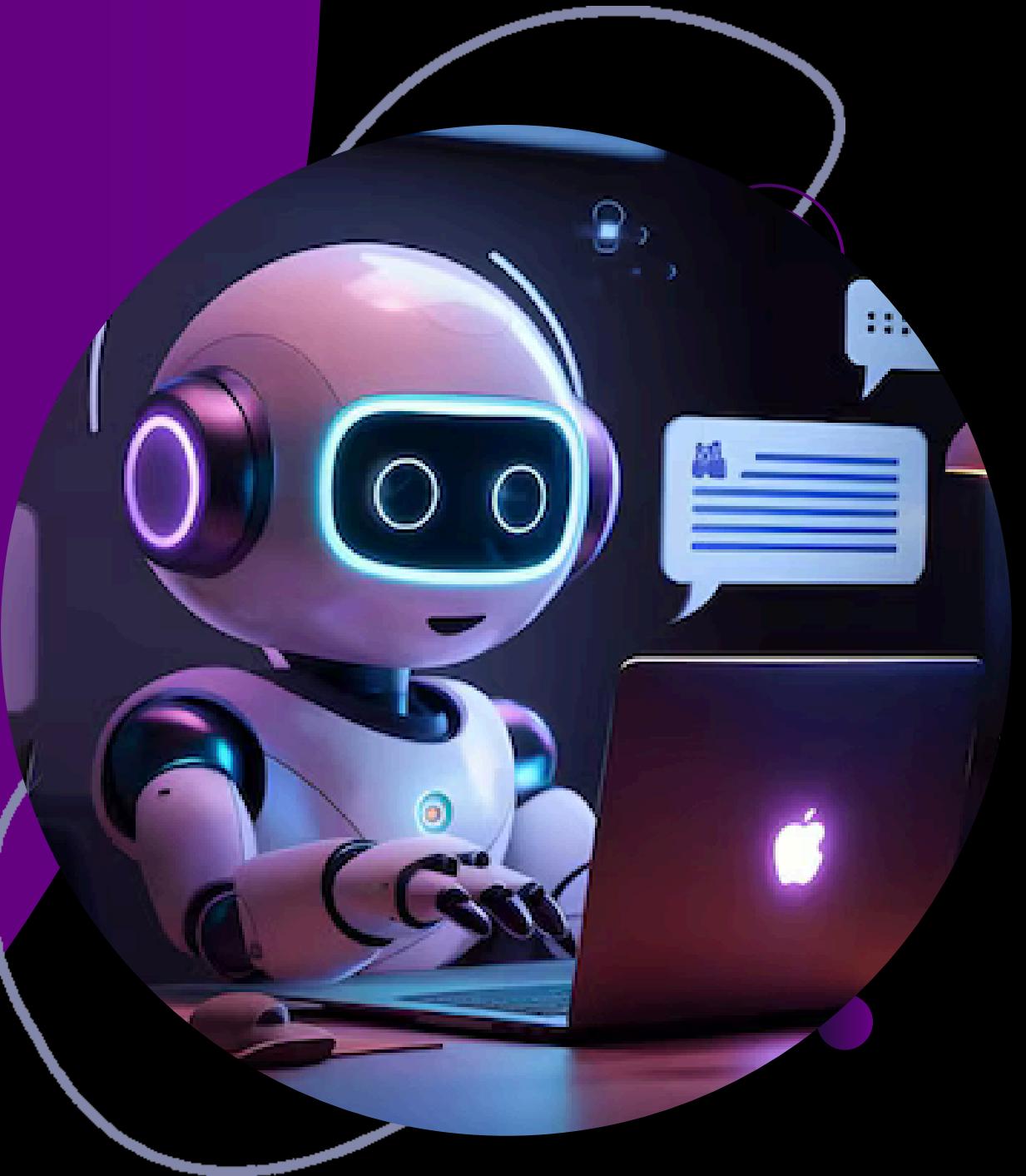


AI-LEARNING ASSISTANT SYSTEM

Transforming YouTube playlists into interactive, intelligent learning hubs.

Presented By: Mayar , Shatha

Get Started

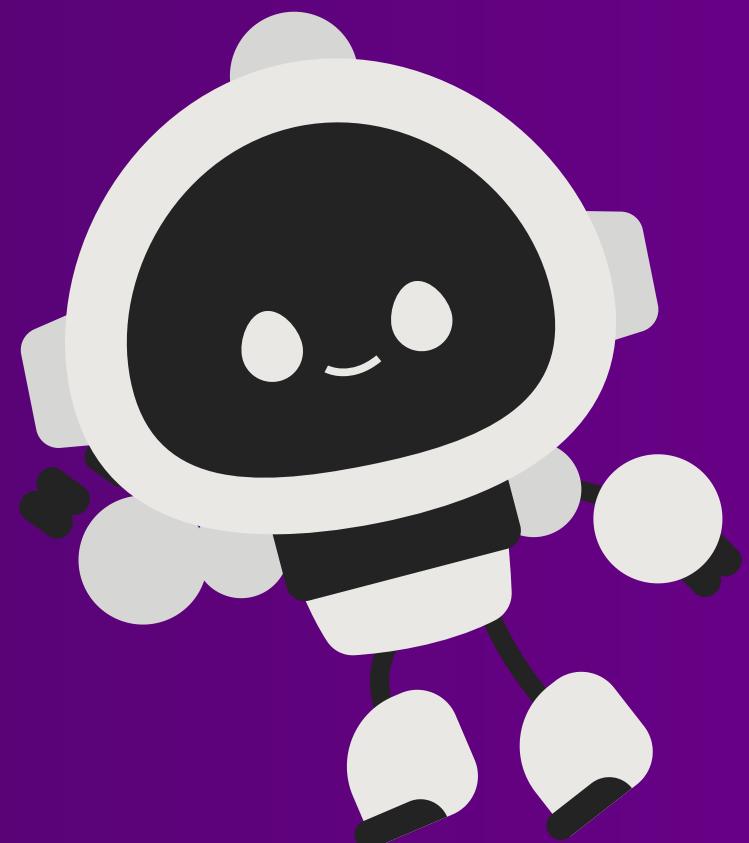


Problem & Motivation

Every day, millions of learners rely on YouTube to explore complex topics – from cybersecurity to AI to psychology. But video-based learning has a major drawback:

⚠ It's slow. It's linear. It's passive.

Learners – whether they're students, professionals, or self-taught individuals – often waste hours rewatching, taking notes, or searching through playlists just to find key insights or answers to a specific question.



Use Cases

E-learning Platforms

- Integrate Askora into educational websites to convert video content into smart, interactive study tools.

Self-Paced Learning

- Ideal for independent learners who want to extract insights quickly without watching entire playlists.

Busy Professionals

- Enables professionals to review and understand topics efficiently (e.g., cybersecurity, AI, soft skills).

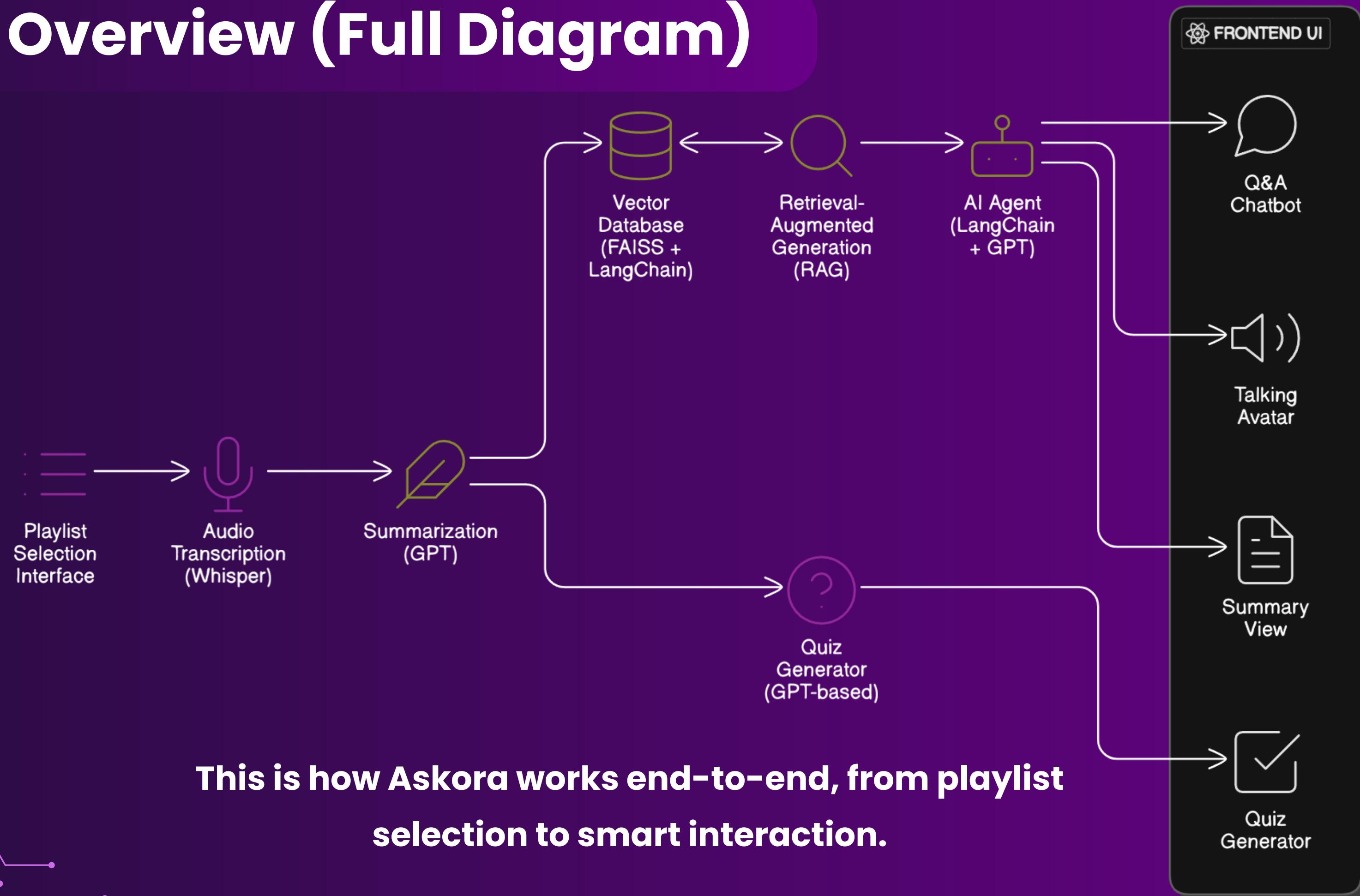
Voice-Assisted Study Tools

- Enhance accessibility with voice input/output for learners who prefer auditory interaction.

Microlearning Apps

- Deliver summarized learning in short, digestible formats — perfect for mobile learning experiences.

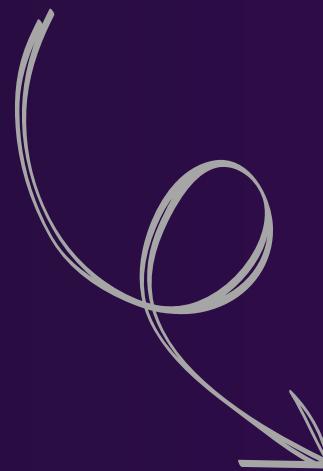
System Overview (Full Diagram)



Playlist Selection & Whisper

Playlist Selection Interface

User selects from preprocessed playlists



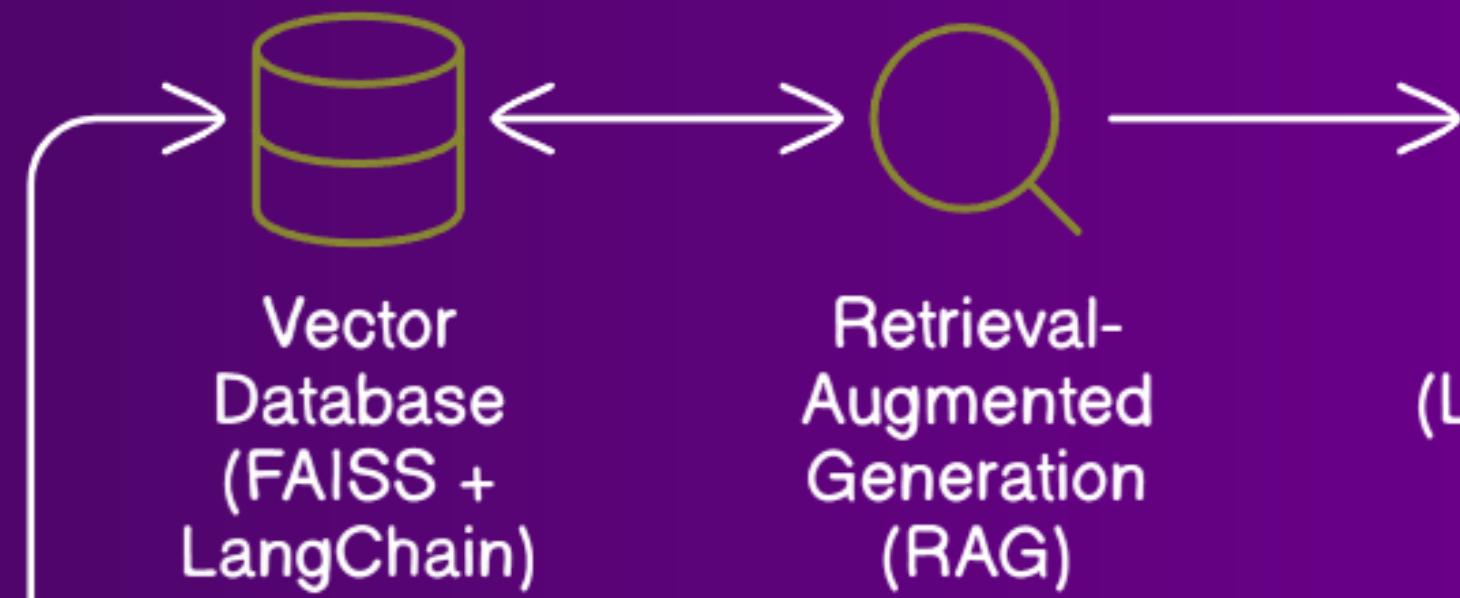
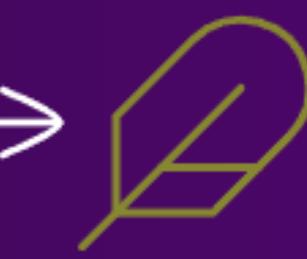
Playlist
Selection
Interface



Audio
Transcription
(Whisper)



Summarization
(GPT)



Quiz

Playlist Selection & Whisper

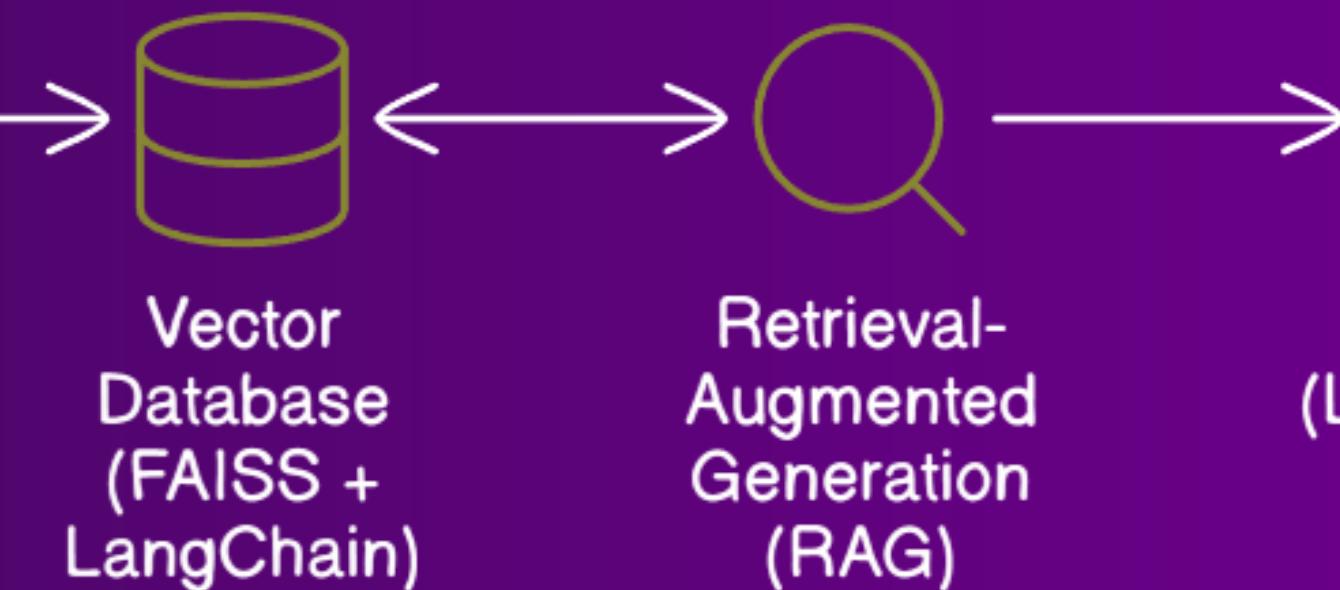
Audio Transcription (Whisper)

Audio is auto-transcribed using Whisper

Playlist Selection Interface

Audio Transcription (Whisper)

Summarization (GPT)

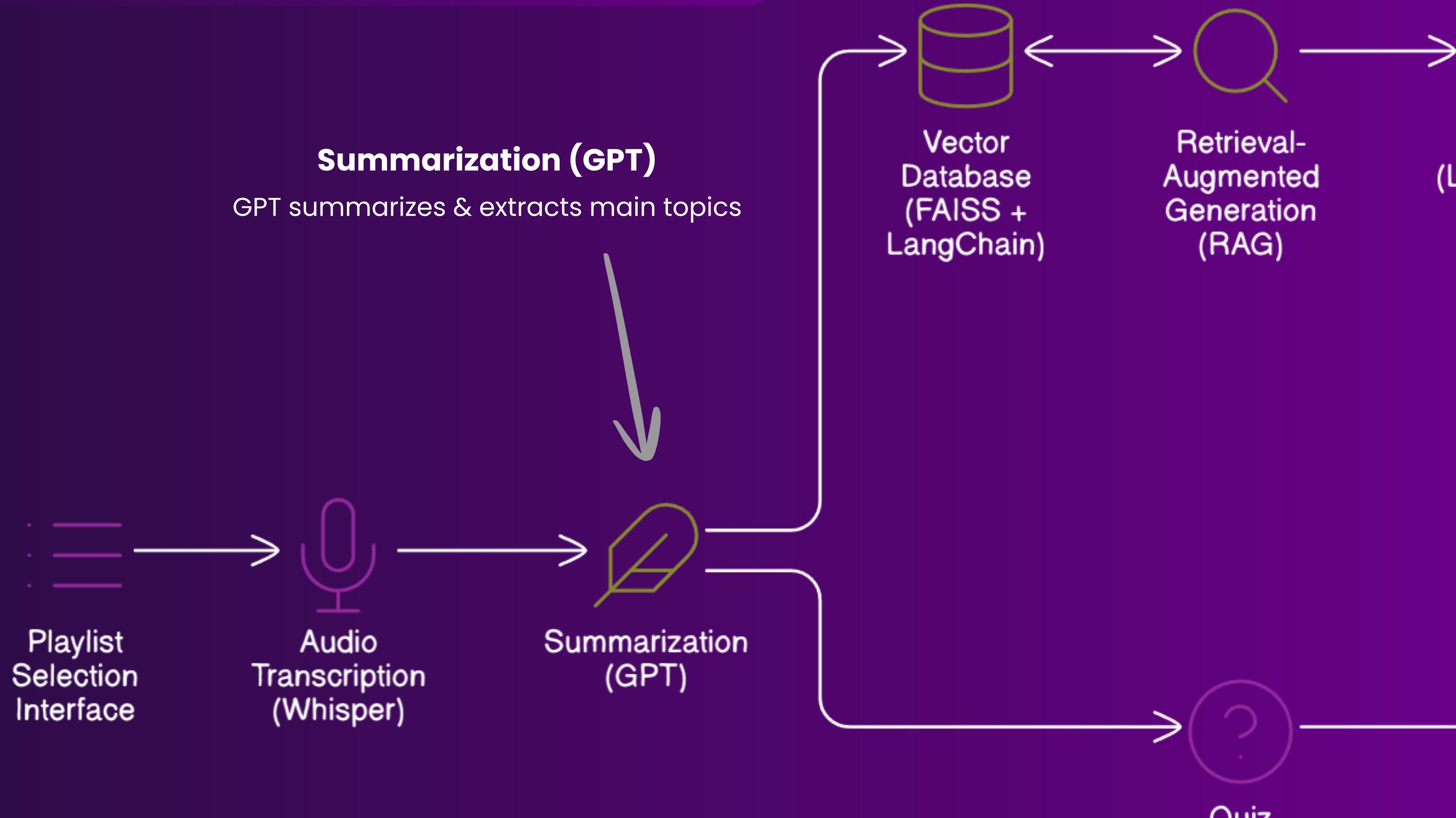


Vector Database (FAISS + LangChain)

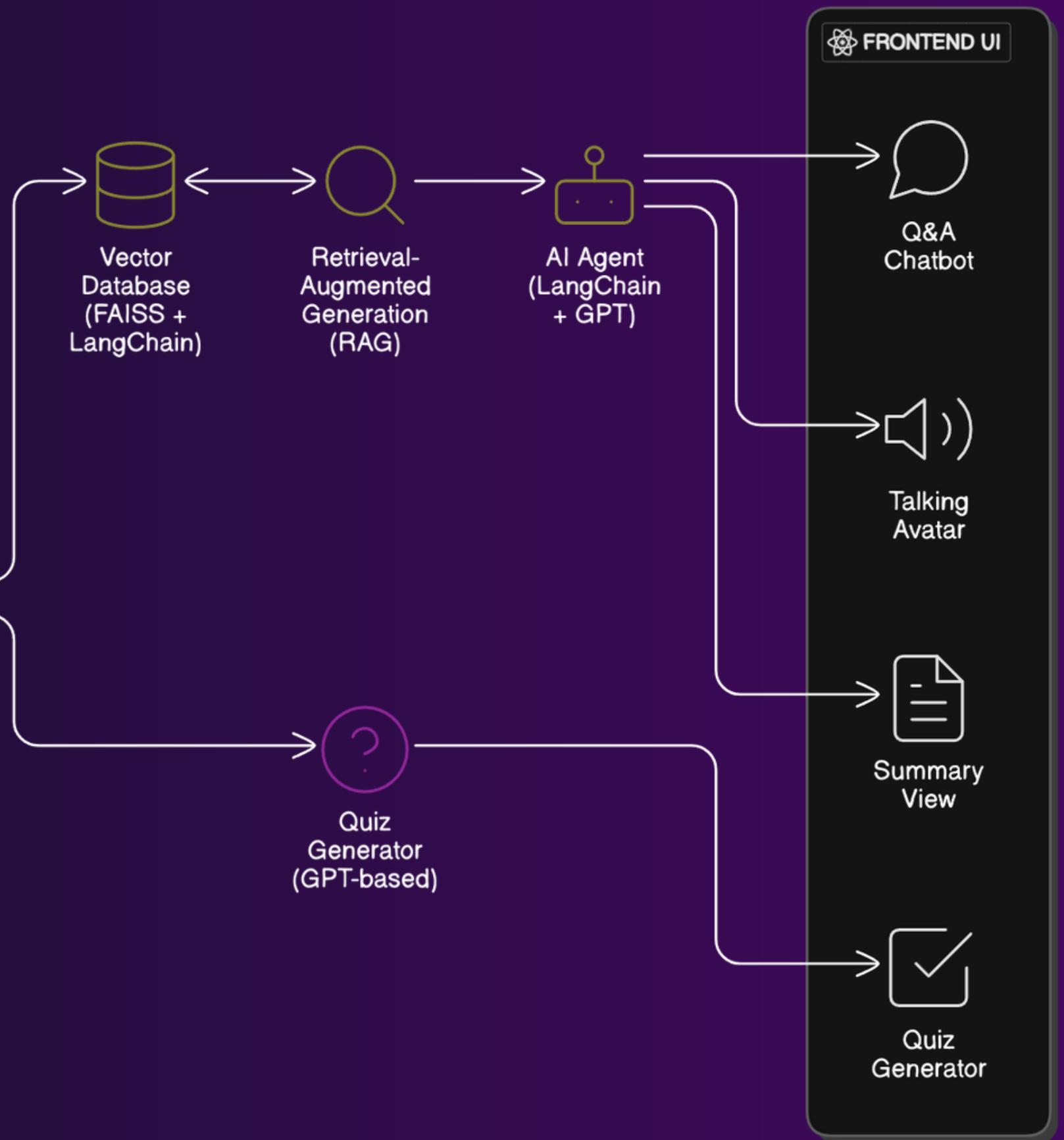
Retrieval-Augmented Generation (RAG)

Quiz

Playlist Selection & Whisper



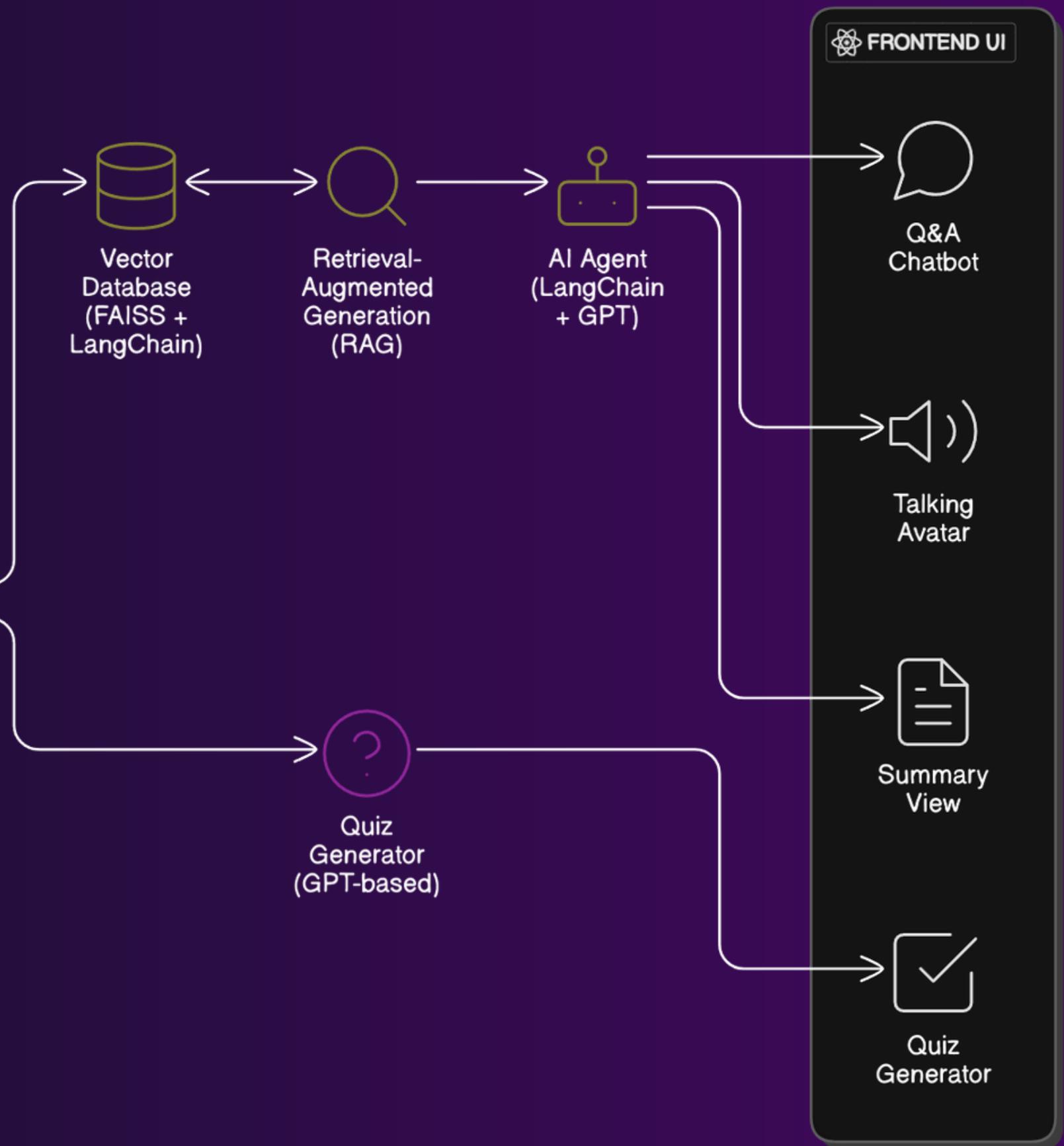
Smart Answers with Askora



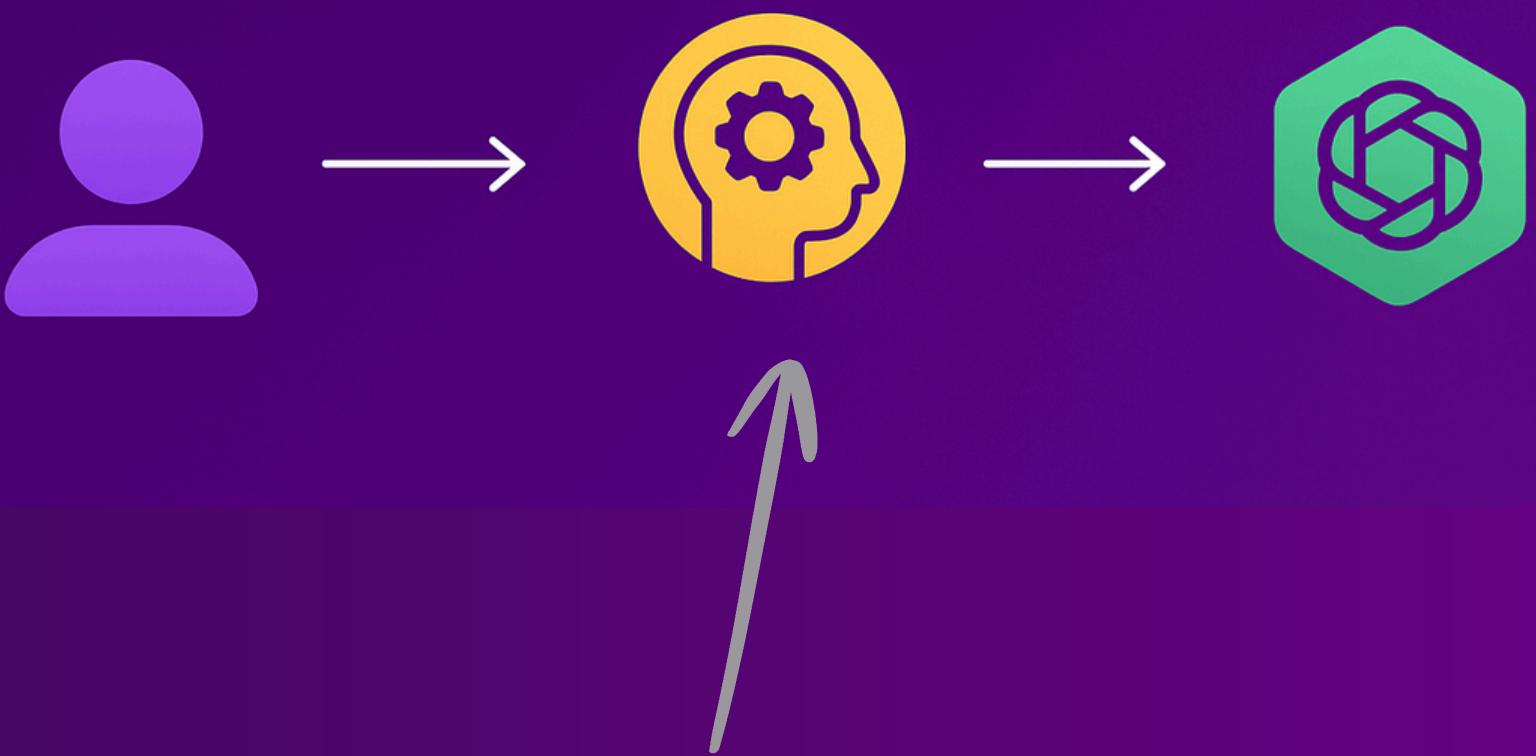
(Behind the scenes: Agent + RAG + GPT)



Smart Answers with Askora

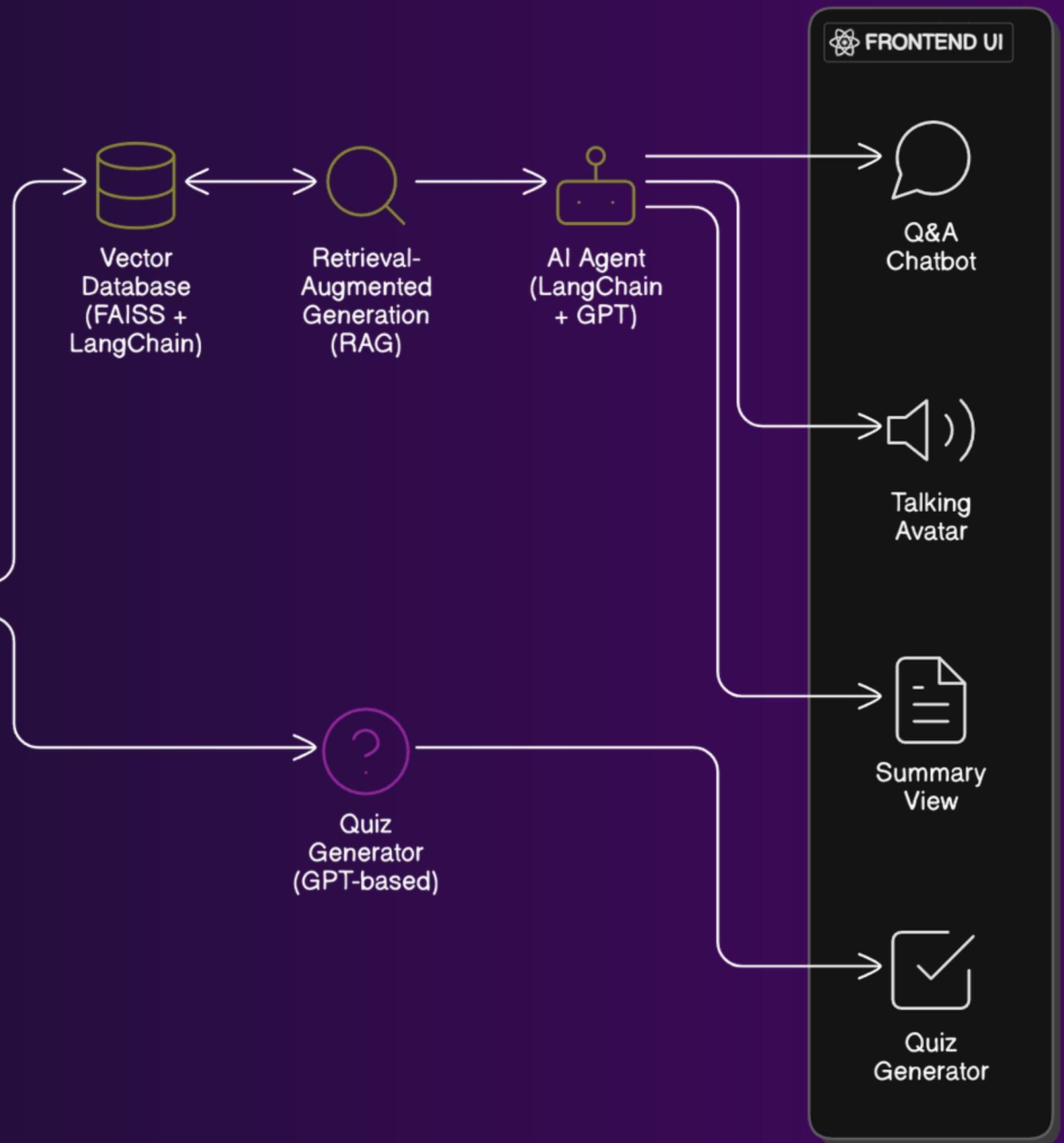


(Behind the scenes: Agent + RAG + GPT)



RAG searches relevant info
and builds context

Smart Answers with Askora

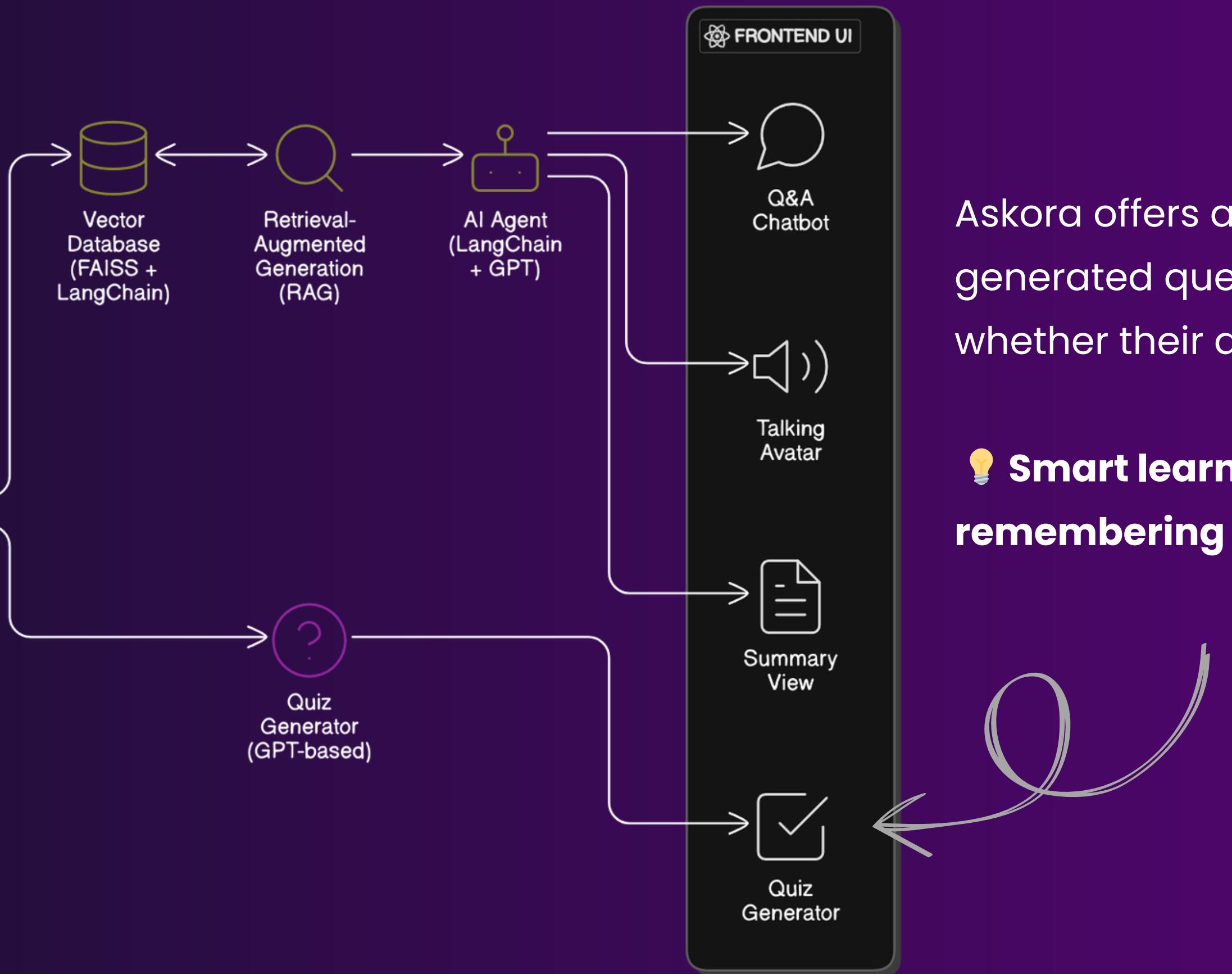


(Behind the scenes: Agent + RAG + GPT)



GPT generates a smart, focused answer

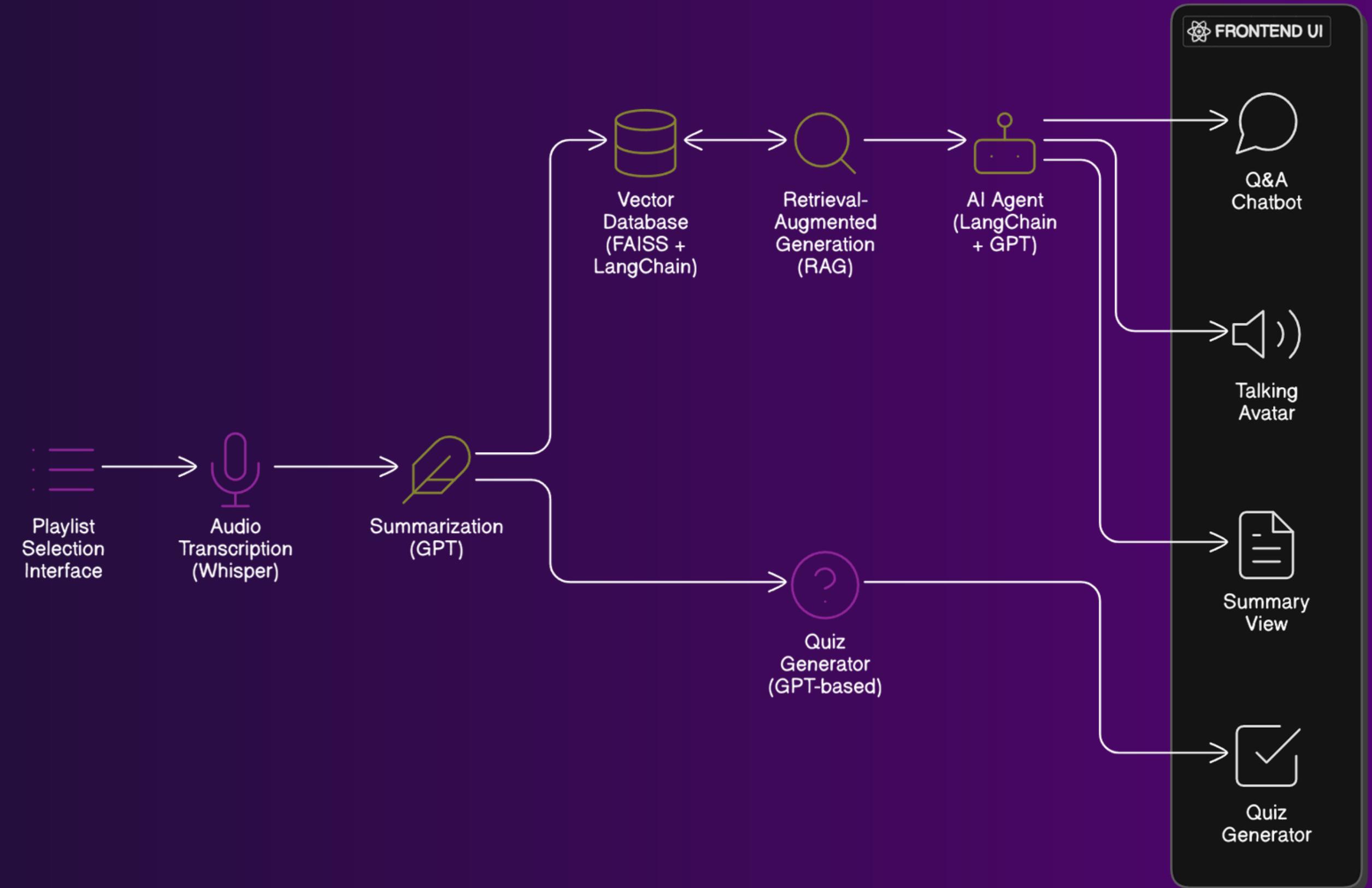
Reinforce Learning Through Quick Questions



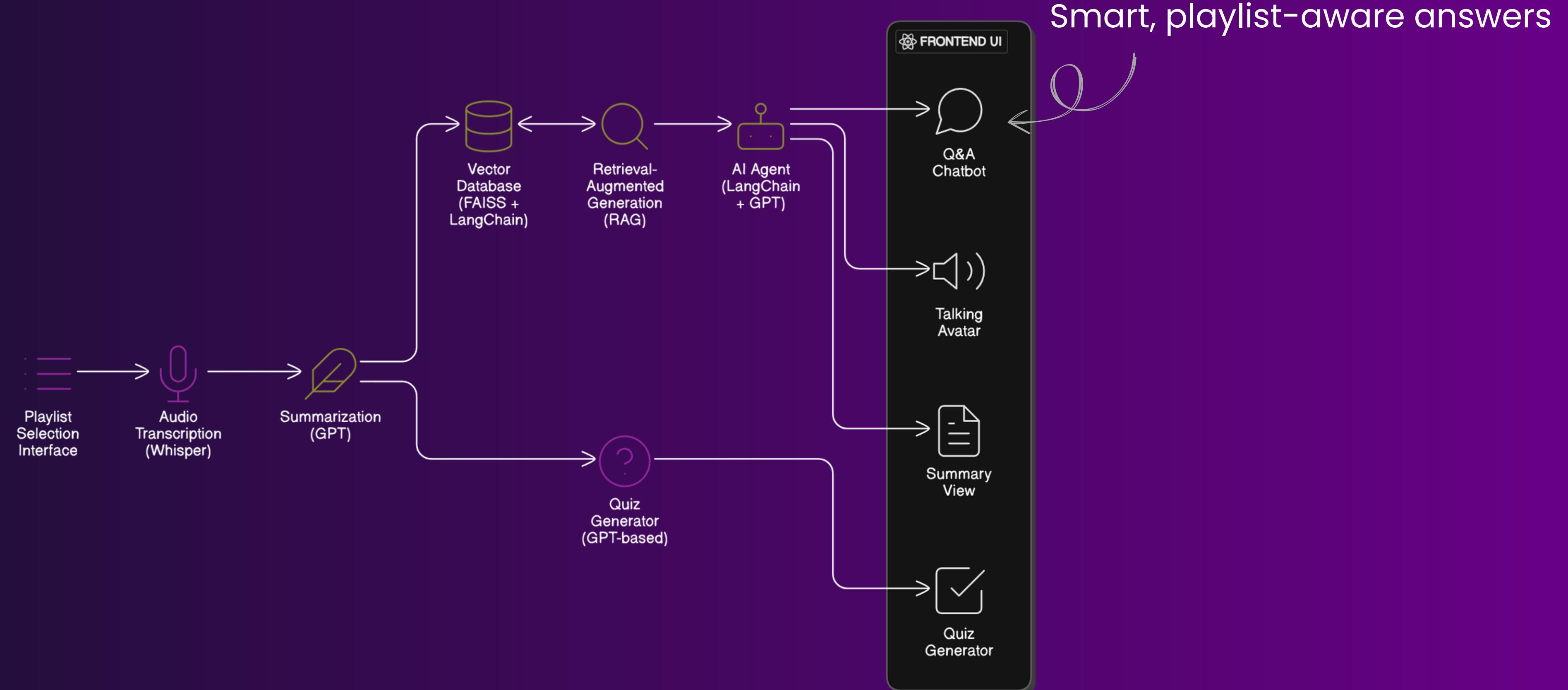
Askora offers a simple interactive quiz with dynamically generated questions using GPT, instantly telling users whether their answers are correct or not.

💡 Smart learning isn't just about answering – it's about remembering too.

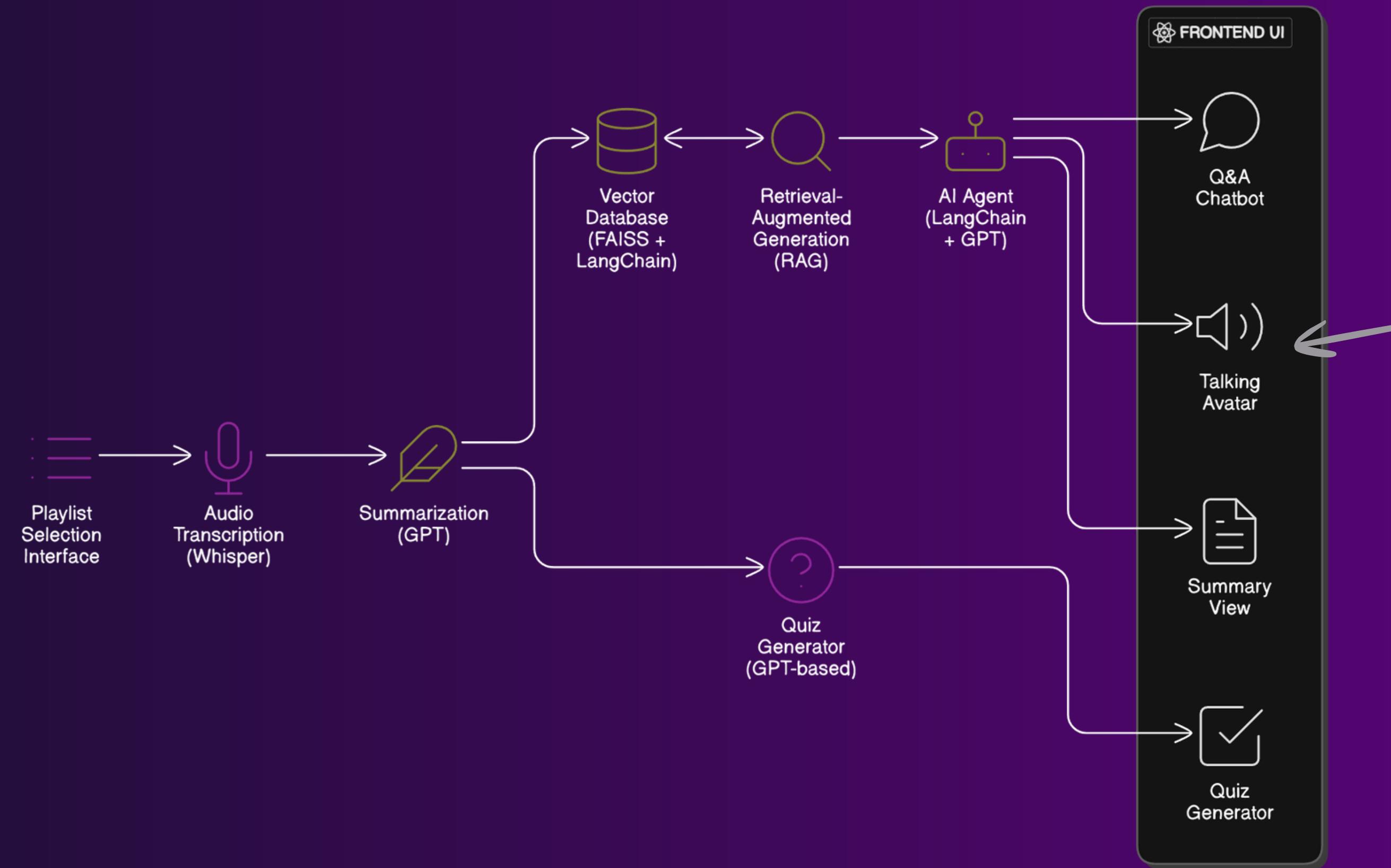
Bringing It All to Life: The User Experience



Bringing It All to Life: The User Experience

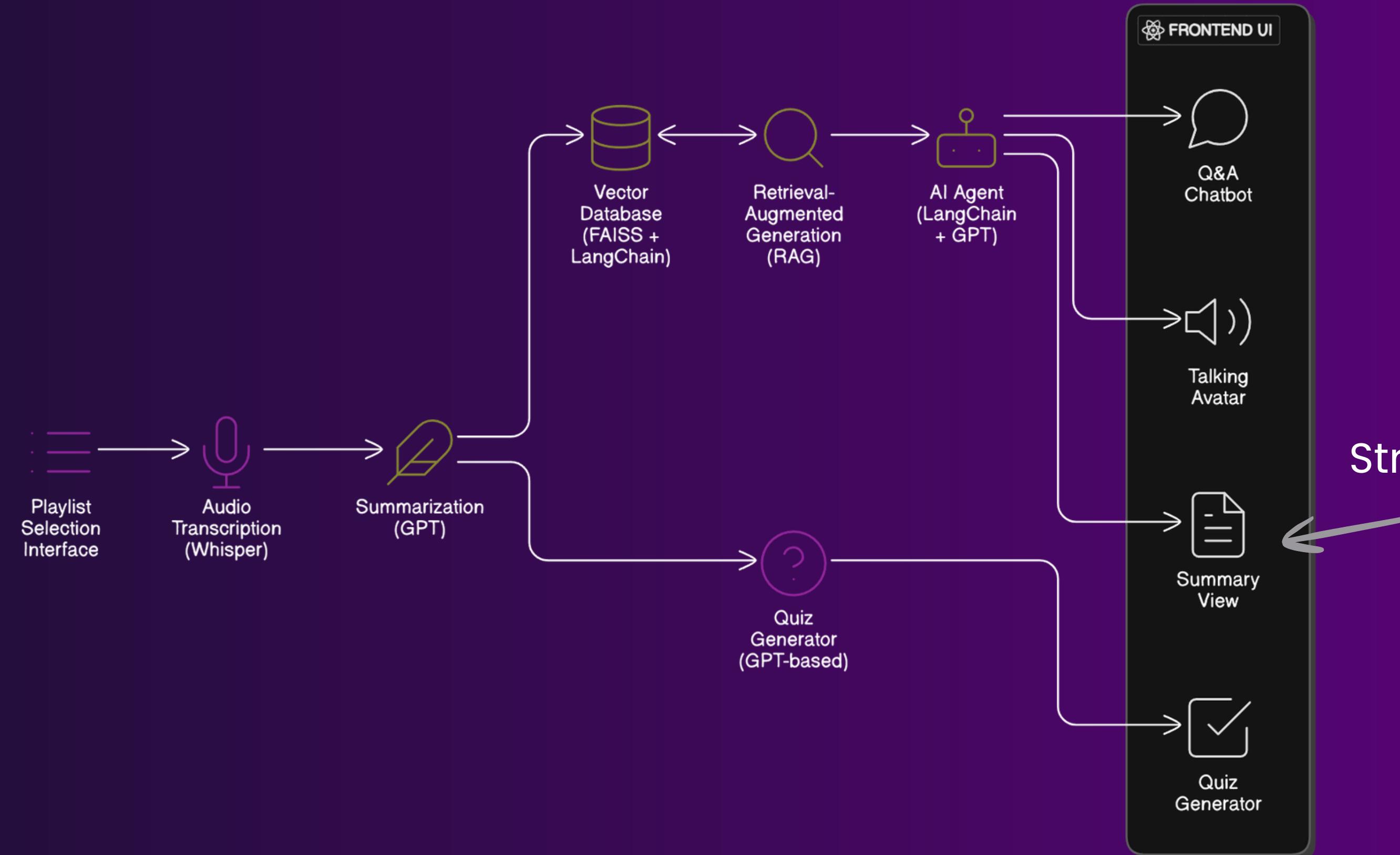


Bringing It All to Life: The User Experience



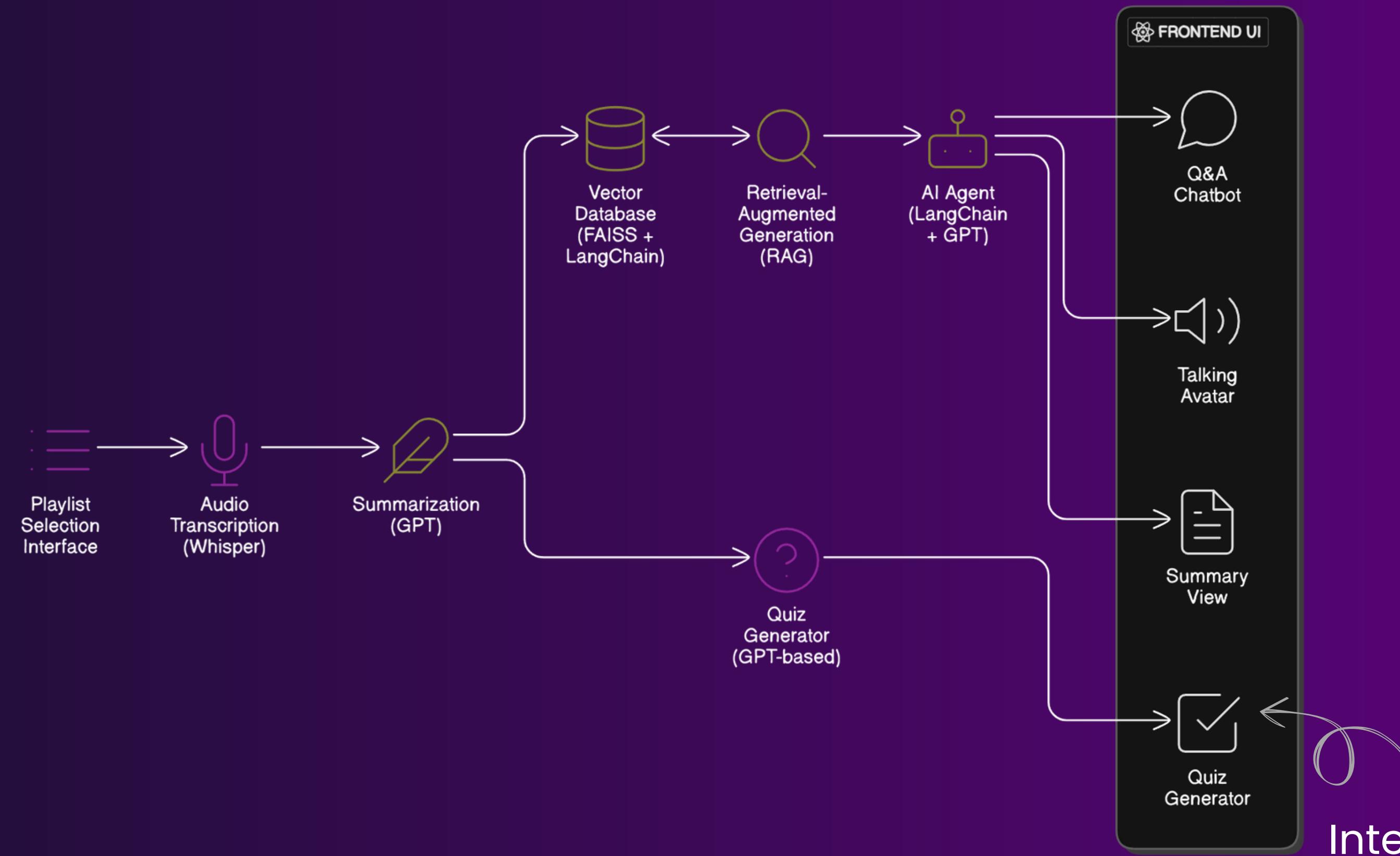
Voice-based learning
experience

Bringing It All to Life: The User Experience



Structured articles per playlist

Bringing It All to Life: The User Experience



Interactive, GPT-based quizzes

Evaluation

How We Evaluated Askora



Why this tool?

- RAG Evaluator compares generated answers to the actual reference context – making it ideal for RAG-based systems like ours.
- It also applies globally recognized metrics – making evaluation both robust and standardized.

How we used it:

We provided:

- The user's question
- The system's answer
- The original context retrieved



Scan to explore or try
the evaluator

Evaluation

What we focused on ?

Although the evaluator provides 12 different metrics, we focused on the ones most relevant to Askora's goals:

Metric	What it Measures	Scale Description
BERT F1	Semantic similarity with the context	0.0-1.0 → Higher = better semantic match
Perplexity	Fluency and confidence in generated text	1-100+ → Lower = better (less confusion)
Diversity	Uniqueness of generated expressions	0.0-1.0 → Higher = more varied content
Racial Bias	Presence of biased/unsafe language	0.0-1.0 → Lower = safer responses

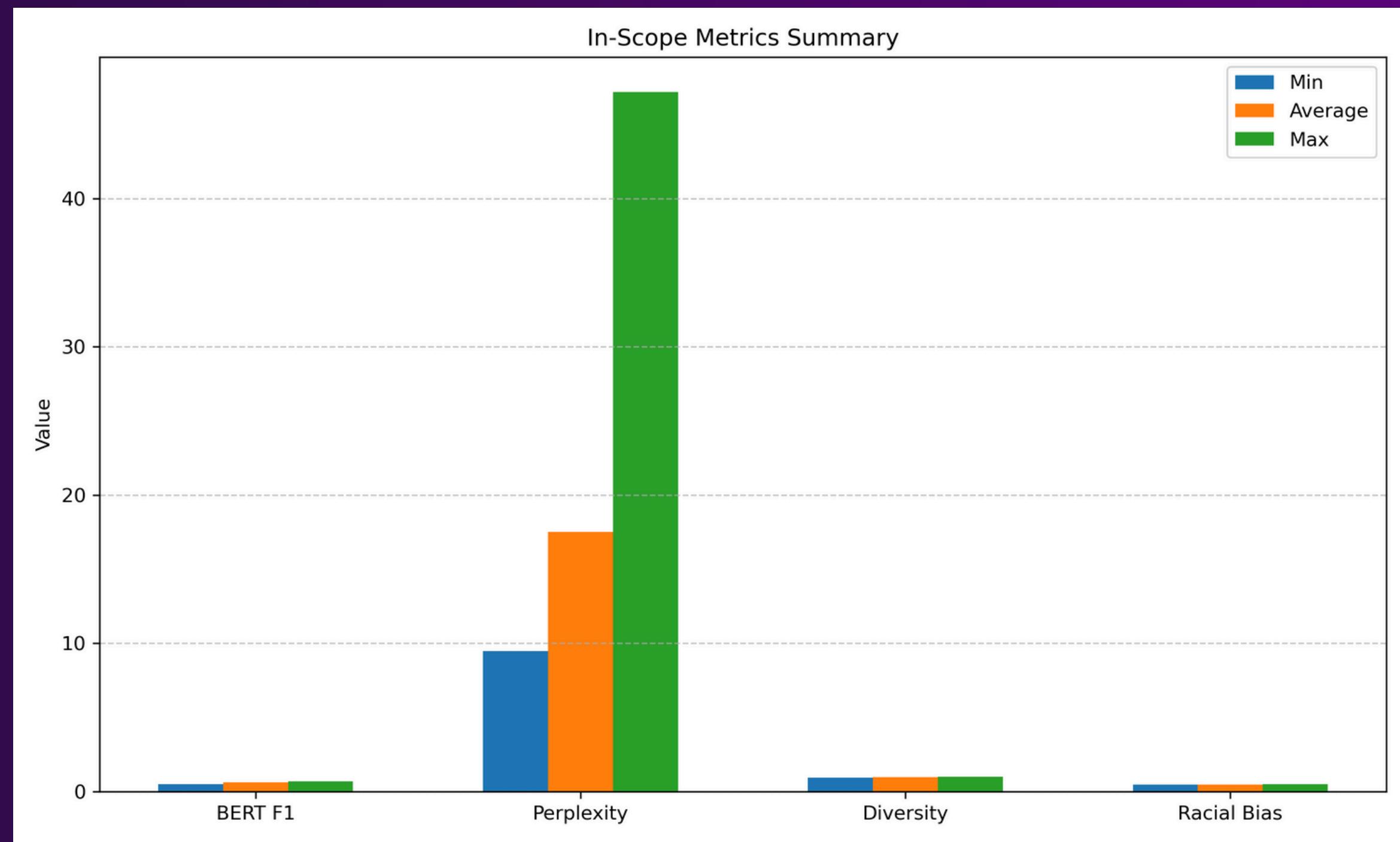
Evaluation

Here's a summary of Askora's performance across four essential quality metrics.

Min	Max	Average	Metric
0.5017	0.6893	0.6302	BERT F1
9.481	47.181	17.5203	Perplexity
0.9333	0.9844	0.9547	Diversity
0.4585	0.4962	0.4773	Racial Bias

Evaluation

This chart shows how Askora performed across different metrics – including best, worst, and average values.



Evaluation

Smart Question Filtering in Action

In - Scope

💡 Cybersecurity Agent Ready! Ask anything or request a quiz. Type 'exit' to quit.

🔥 CyberSecurityQA_tool was called

🔥 qa_fn called directly

📋 Combined Top 3 Chunks:

as well which is in general probably a good thing two factor authentication or two FA more generally known as multi factor authentication solutions especially for popular websites like Google and Facebook and others is that if I already have an account with Google or Facebook

📊 Similarity Score: 0.740000095367432

🔍 is_likely_cyber: True

📁 Saved to rag_log.csv ✓

📝 Summary:

🧠 User: How does two-factor authentication improve account security?

🛠 Tool Used: CyberSecurityQA_tool

🤖 AI Response: Two-factor authentication (2FA) improves account security by requiring users to provide two distinct forms of verification

By implementing 2FA, even if an attacker obtains a user's password, they would still need the second factor to access the account,

Evaluation

Smart Question Filtering in Action

out - Scope

🔥 cyberSecurityQA_tool was called

🔥 qa_fn called directly

⌚ Combined Top 3 Chunks:

letter at a time. And it's a repeatable process that Ralphie, in this case, can apply again and again to a

you somehow via the internet and how might these attacks be possible very very common mechanism for waging

📊 Similarity Score: 0.5600000023841858

🔍 is_likely_cyber: False

📁 Saved to rag_log.csv ✓

📝 Summary:

🧠 User: What caused World War II?

🛠 Tool Used: CyberSecurityQA_tool

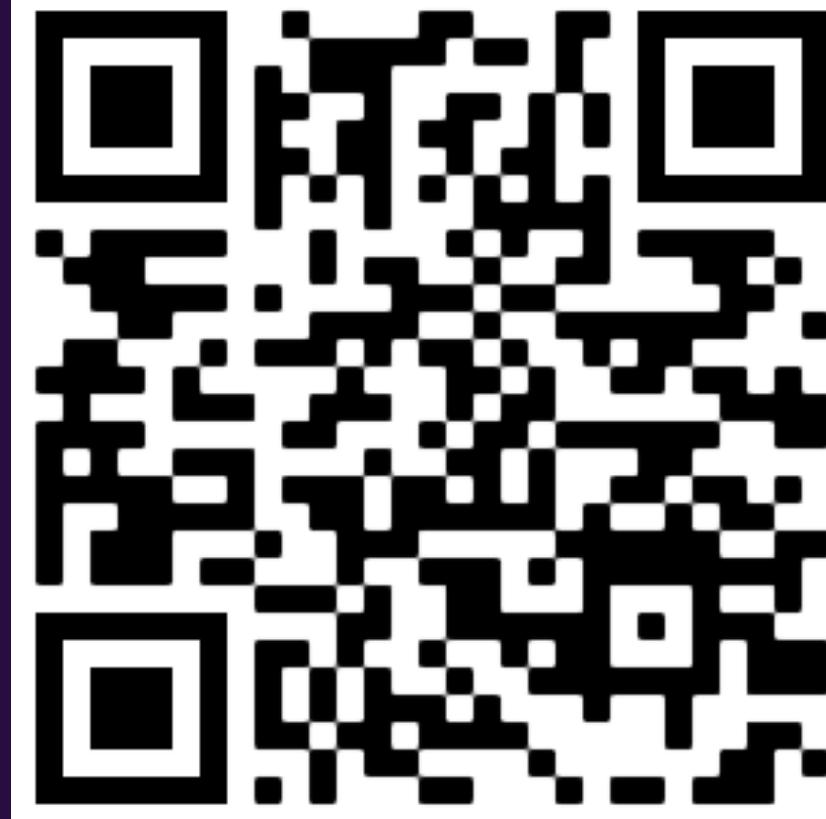
🤖 AI Response: I'm unable to provide information on the causes of World War II as it falls outside the c

Askora doesn't just answer – it thinks before it speaks.

Using semantic similarity + topic detection, it decides if a question fits the playlist topic before answering.

Deployment

Try Askora Yourself



The image displays two views of the Askora website: a mobile phone screen on the left and a desktop browser window on the right.

Mobile View (iPhone):

- The top status bar shows the time as 6:11 and battery level at 19%.
- The header includes the Askora logo, a menu icon, and a "Dashboard" button.
- A purple button labeled "AI-Powered Learning" is visible.
- The main content features the heading "Smart Video Learning Assistant".
- Below the heading, a subtext reads: "Transform your YouTube playlists into interactive knowledge hubs. Get instant summaries and ask questions about any video content for smarter, faster learning."
- Two calls-to-action buttons are present: "Get Started" and "Learn more →".
- At the bottom, there's a "Smart Summaries" section with a checkmark icon and a link to "askora-ashy.vercel.app".

Desktop View:

- The top navigation bar includes "Home" (which is underlined), "About Us", "Services", "Contact", "Pages", and a "Dashboard" button.
- A purple button labeled "AI-Powered Learning" is visible.
- The main content features the heading "Smart Video Learning Assistant".
- Below the heading, a subtext reads: "Transform your YouTube playlists into interactive knowledge hubs. Get instant summaries and ask questions about any video content for smarter, faster learning."
- Two calls-to-action buttons are present: "Get Started" and "Learn more →".
- At the bottom, there are two sections: "Smart Summaries" (with a checkmark icon) and "AI Q&A" (with a speech bubble icon).
- A circular image on the right shows a white, glowing AI robot sitting at a desk with a laptop, surrounded by speech bubbles.

THANK YOU

FOR YOUR ATTENTION

Presented By: Mayar , Shatha

Askora isn't just a tool — it's a smarter way to learn.

By combining AI, curated video content, and interactive experiences, we help learners go deeper, faster, and with more clarity than ever before.

www.askora.com

