

Project: Multi-user Conversational RAG System

Instructor

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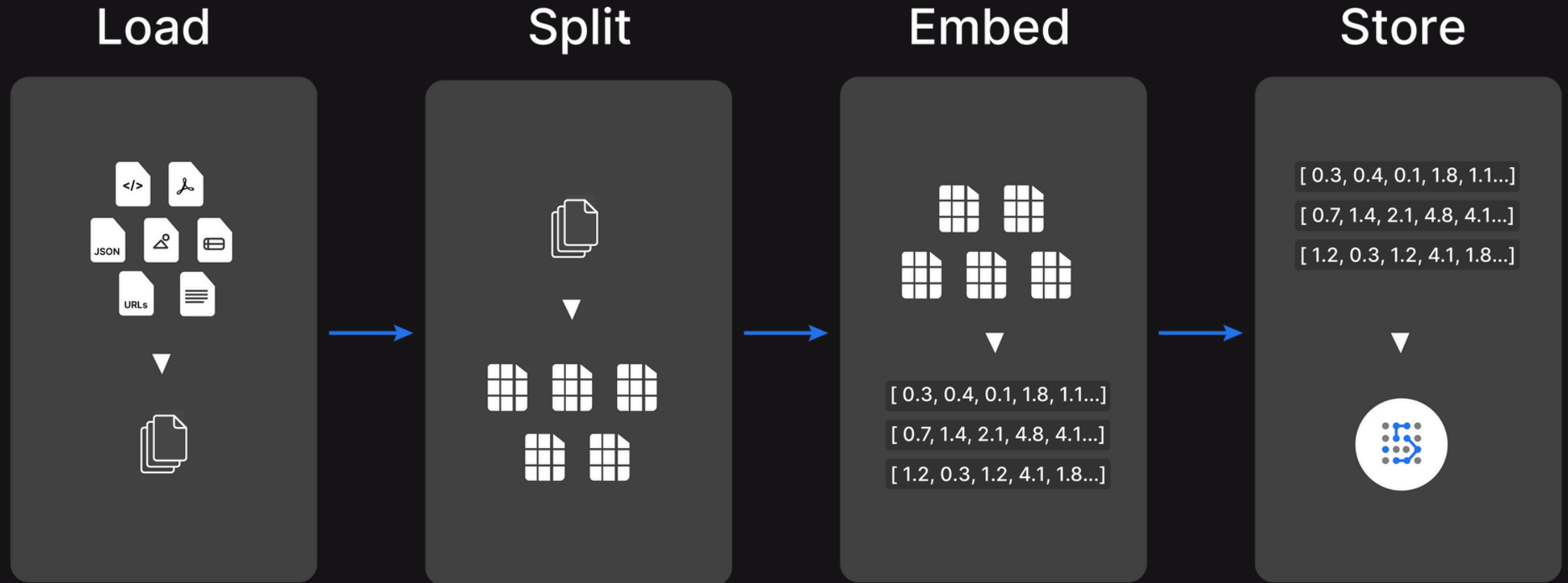
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Google Developer Expert - ML & Cloud Champion Innovator

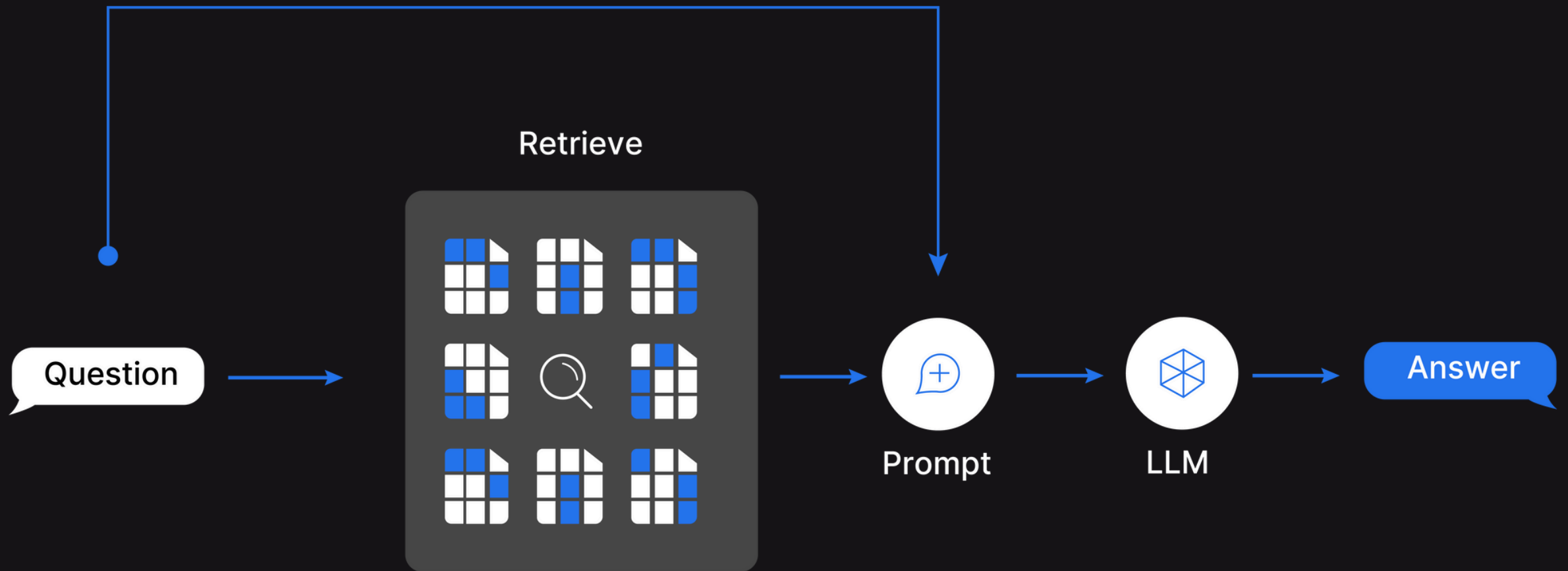
Published Author



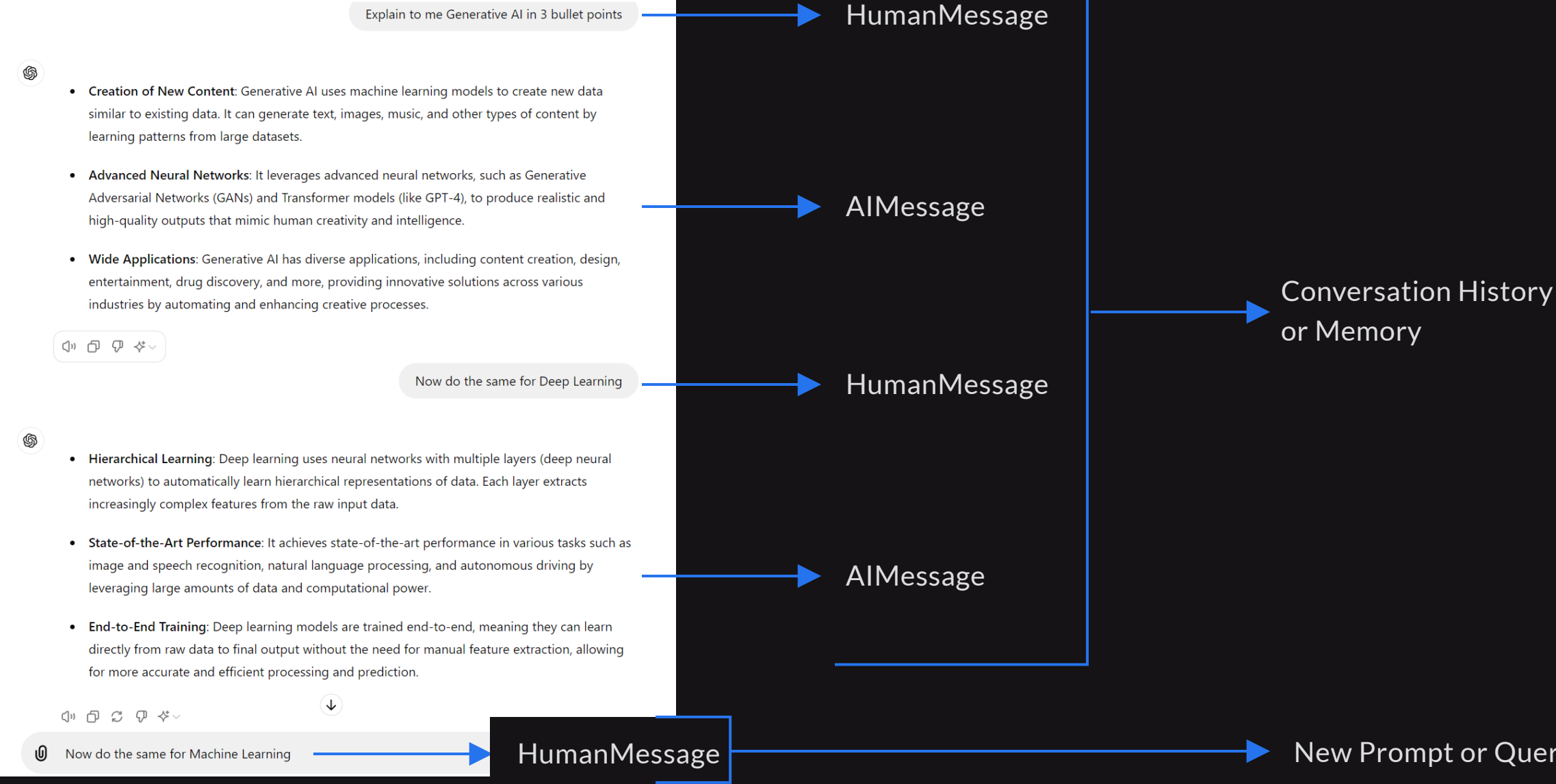
RAG System Architecture



RAG System Architecture



What is a Conversation?



Need for Conversational Memory

With Conversational Memory

I am interested in integrating LLMs with external knowledge

LLMs are great at generating human-like text. Yet, integrating external knowledge can enhance their capabilities even more.

What are the different possible methods for doing this?

You could use pre-existing knowledge graphs, allow LLMs access to tools like APIs, or retrieval augmentation with vector DBs!

..... Conversation History

Interesting! What was it I wanted to know about?

You were interested in integrating LLMs with external knowledge.

Without Conversational Memory

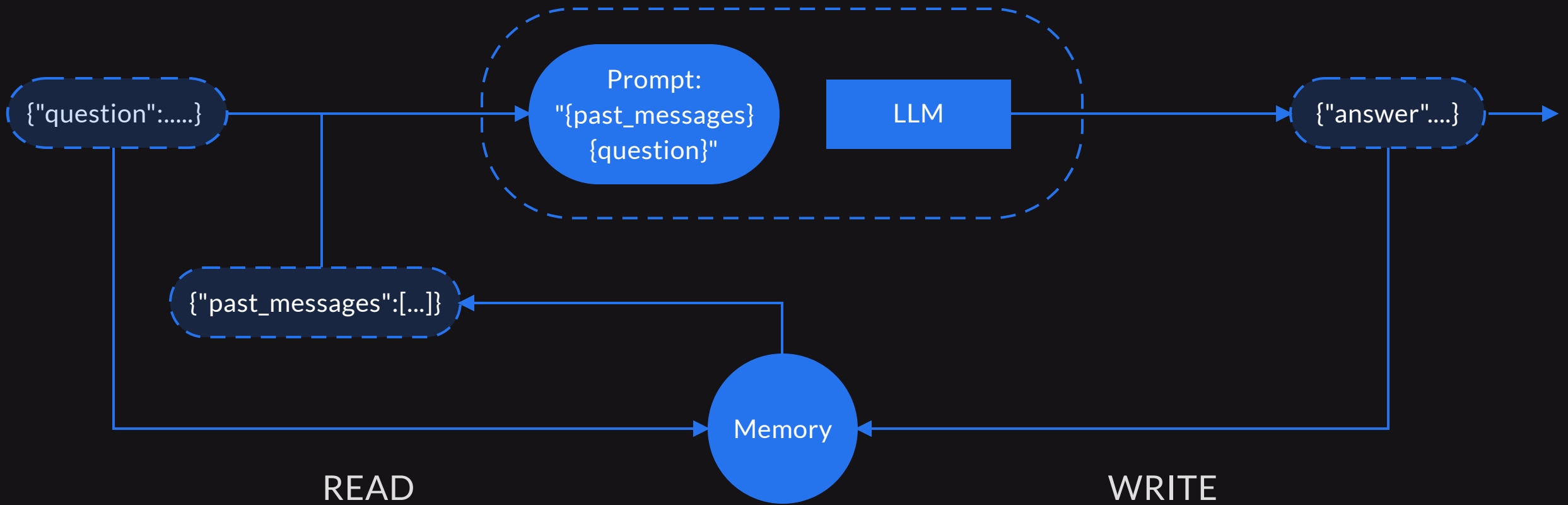
(No conversation history is stored)

..... Conversation History

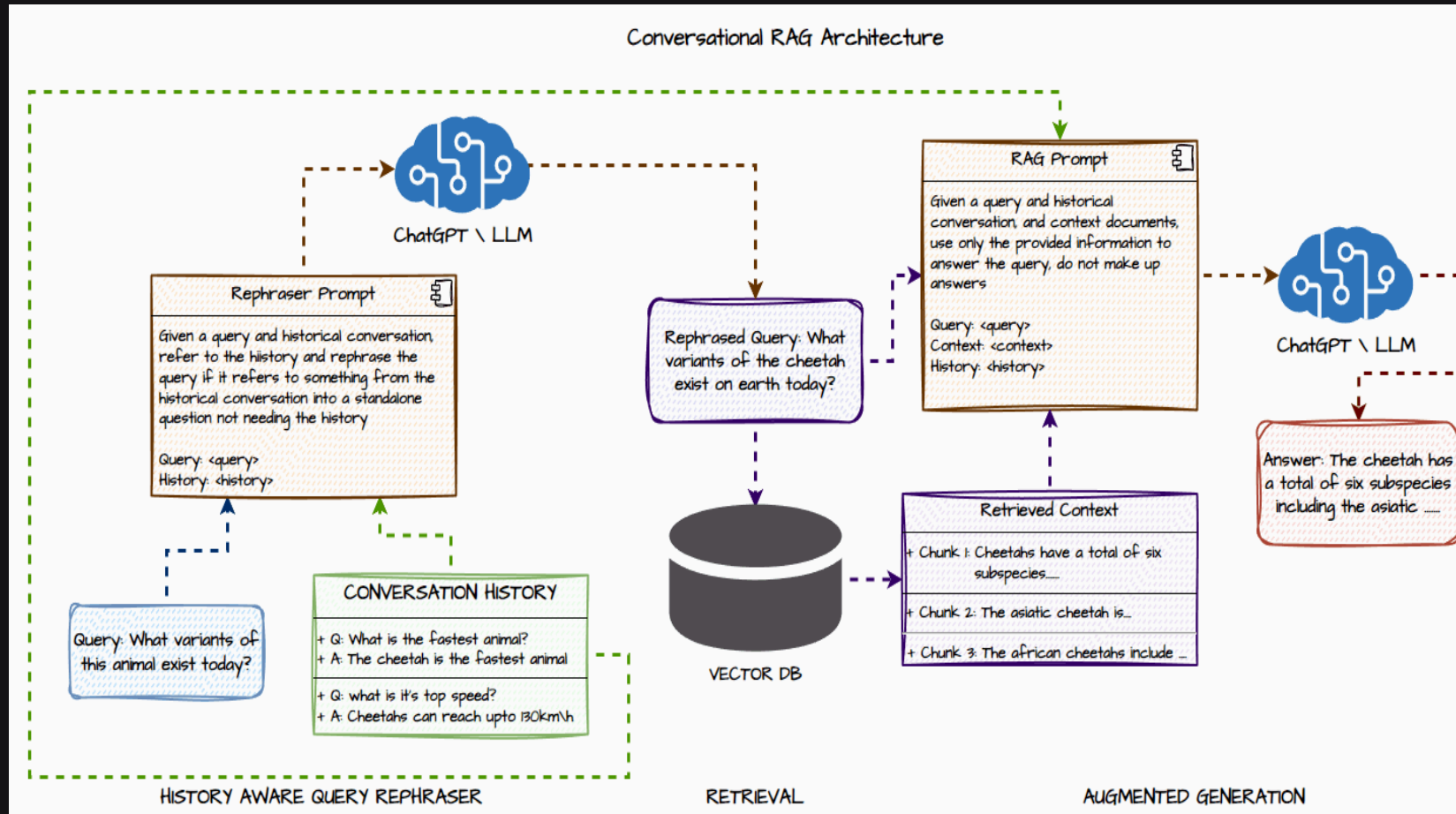
Interesting! What was it I wanted to know about?

Sorry, I have no idea what you're talking about!

Conversation Chain with Memory in LCEL

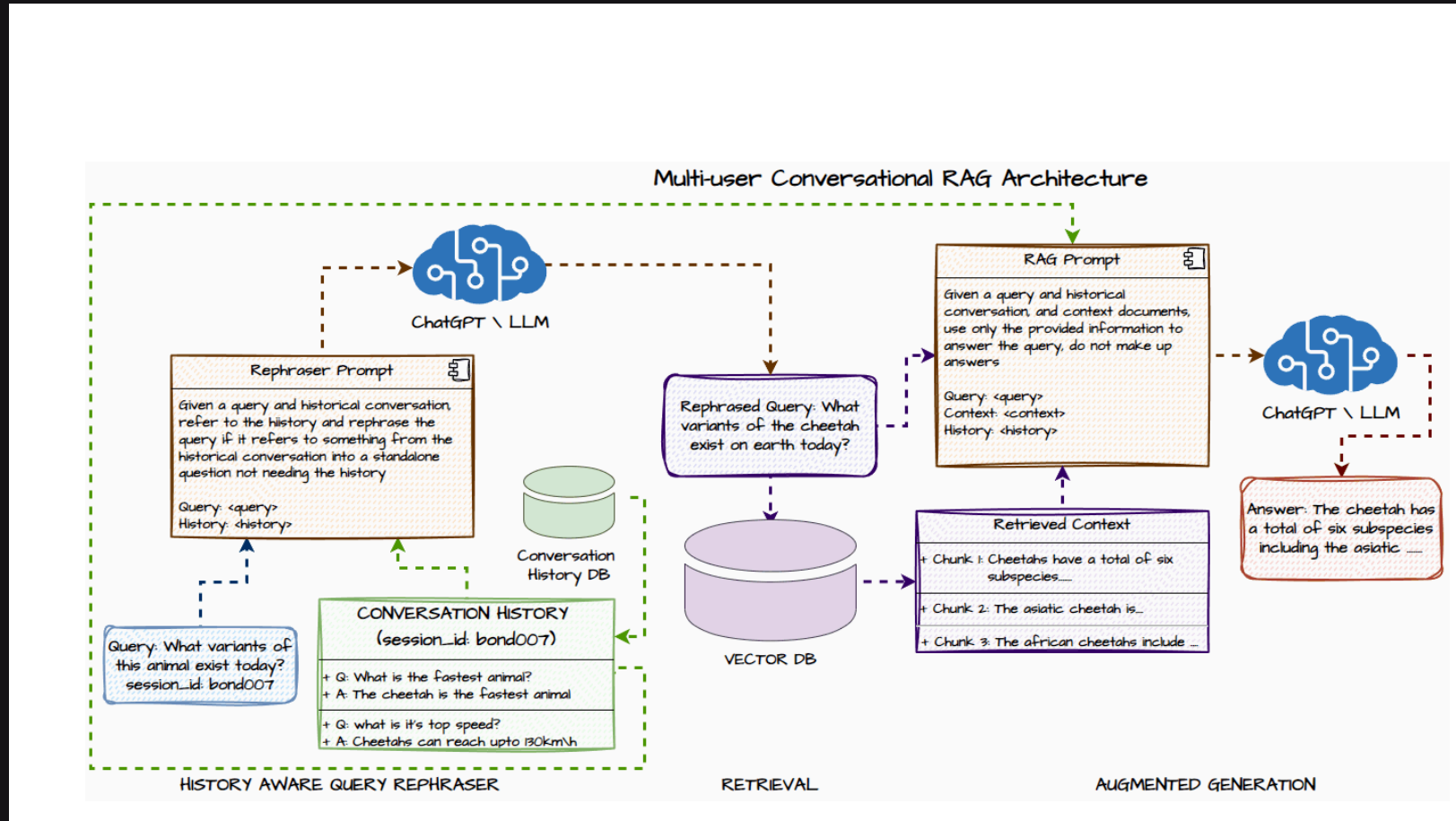


Conversational RAG System



Conversational RAG System rewrites the user query based on the historical conversation into a more contextual query and plugs it into the RAG System

Multi-User Conversational RAG System



Multi-user Conversational RAG System maintains a conversation history per user-session ID and hence can cater to multiple user queries at the same time

Thank You
