
CHAT WITH YOUR OWN DATA!

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Agenda

- Generative AI and Large Language Models (LLMs)
- Azure OpenAI Overview
- Demos
- LangChain Overview
- Demos

Artificial Intelligence

Machine Learning

Deep Learning

Generative AI



Artificial Intelligence

The field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence



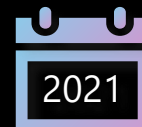
Machine Learning

Subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions



Deep Learning

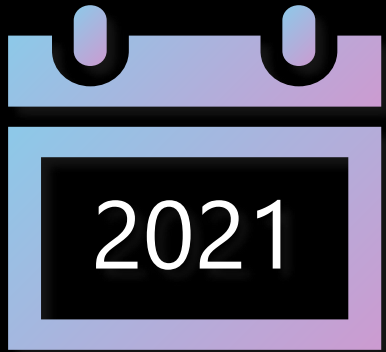
A machine learning technique in which layers of neural networks are used to process data and make decisions



Generative AI

Create new written, visual, and auditory content given prompts or existing data

Generative AI



Generative AI

Create new written, visual, and auditory content given ***prompts*** or ***existing data***

The AI Technology is Here

Forbes

FORBES > INNOVATION > ENTERPRISE & CLOUD

What ChatGPT And Generative AI Mean For Your Business

CNN BUSINESS

Real estate agents say they can't imagine working without ChatGPT now

VentureBeat

Microsoft gives businesses a GPT boost in Teams and Viva Sales

CNN BUSINESS

Markets Tech Media Success Perspectives Videos

Microsoft is bringing ChatGPT technology to Word, Excel and Outlook

USA TODAY

New Bing with ChatGPT brings the power of AI to Microsoft's signature search engine

COMPUTERWORLD

UNITED STATES

NEWS

Microsoft's new Teams Premium tier integrates with OpenAI's GPT-3.5

Weeks after extending its multibillion dollar partnership with OpenAI, Microsoft has announced that new Teams AI capabilities will be underpinned by OpenAI's GPT-3.5 natural language model.

The Verge

Menu +

MICROSOFT / TECH / ARTIFICIAL INTELLIGENCE

Microsoft launches Azure OpenAI service with ChatGPT coming soon / ChatGPT is coming to this Azure service soon, as businesses get to use new AI models in their own apps.



The Verge

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ChatGPT is now available in Microsoft's Azure OpenAI service

Artificial Intelligence (AI)

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Artificial General Intelligence (AGI)

On the other hand, AGI goes beyond the capabilities of AI by referring to machines or computer systems that possess the ability to understand, learn, and apply knowledge across **a wide range of tasks**, just like a human being. AGI aims to replicate the general intelligence found in humans and encompass various cognitive abilities such as reasoning, understanding natural language, learning new skills, and adapting to new situations.

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Azure OpenAI Service



*Ensure that artificial
general intelligence (AGI)
benefits humanity*



*Empower every person and
organization on the planet
to achieve more*

Generative AI

Content creation by API

Prompt

Write a tagline for an ice cream shop.

Response

We serve up smiles with every scoop!

Prompt

I'm having trouble getting my Xbox to turn on.

Response

There are a few things you can try to troubleshoot this issue ...

Prompt

Thanks! That worked. What games do you recommend for my 14-year-old?

Response

Here are a few games that you might consider: ...

Prompt

Table customers, columns = [CustomerId, FirstName, LastName, Company, Address, City, State, Country, PostalCode]

Create a SQL query for all customers in Texas named Jane query =

Response

```
SELECT *  
FROM customers  
WHERE State = 'TX' AND  
FirstName = 'Jane'
```

Prompt

A ball of fire with vibrant colors to show the speed of innovation at our media and entertainment company

Response



| Azure OpenAI Service Capabilities

Creative Ideation Subject Research

Essay outlines Extracting insights Semantic search

Summarizing text Code generation

Limitless generation with a few lines of input

Virtual Assistants Language Translation Writing assistance

Classifying text Answering questions Poem creation

Comments from code Code refactoring Image Generation

Azure OpenAI

Top Capabilities and Use Cases



Content generation

Call center automation:
automatically generate responses to customer inquiries

Generate personalized UI for your website



Summarization

Call center analytics:
summary of customer support conversation logs

Subject matter expert document summarization (e.g. Financial reporting, analyst articles)

Social media trends summarization



Q & A over Documents

Use information held within documents to answer questions or query

Crunch huge amounts of text and find relevant parts easily

Modern Chat Bots



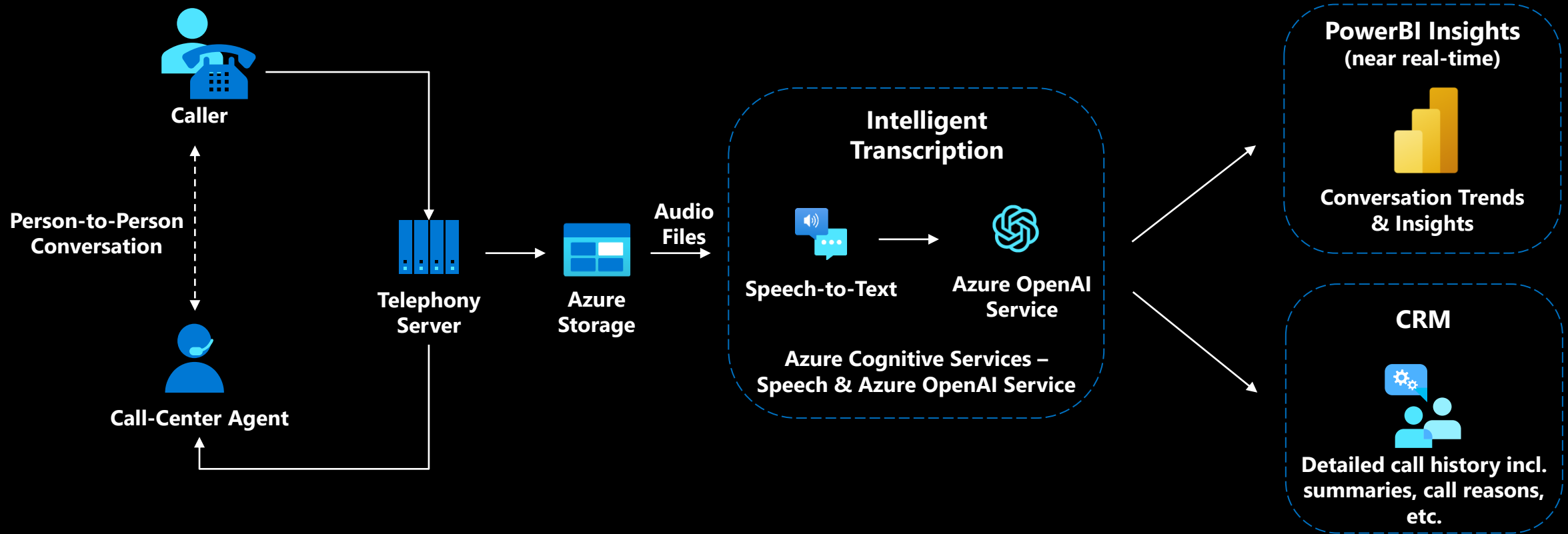
Semantic search

Search reviews for a specific product/service

Information discovery and knowledge mining

Contact Center Analytics using Speech API & Azure OpenAI Service

Extract rich insights from call transcripts



| Key Terms

Extract the mailing address from this email:

Hi John Doe,

It was great to meet up at Build earlier this week. I thought the AI platform talk was great and I really enjoyed it.

I appreciate the offer for the book. If you are OK, you can mail it to me at home, or 123 Microsoft Way, Bellevue WA 92004.

Regards,

Chris Hoder

Prompt—Text input that provides some context to the engine on what is expecting.

Completion—Output that GPT-3 generates based on the prompt.

Token — partial or full words processed and produced by the GPT models



Azure OpenAI Demos

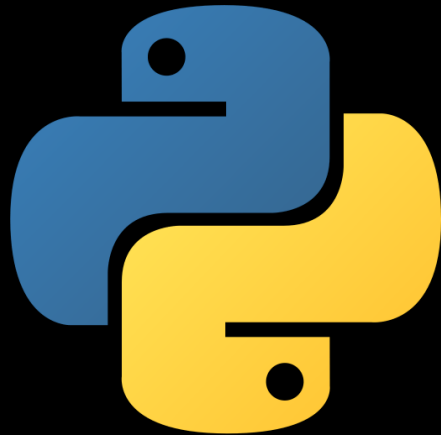


Introduction to LangChain

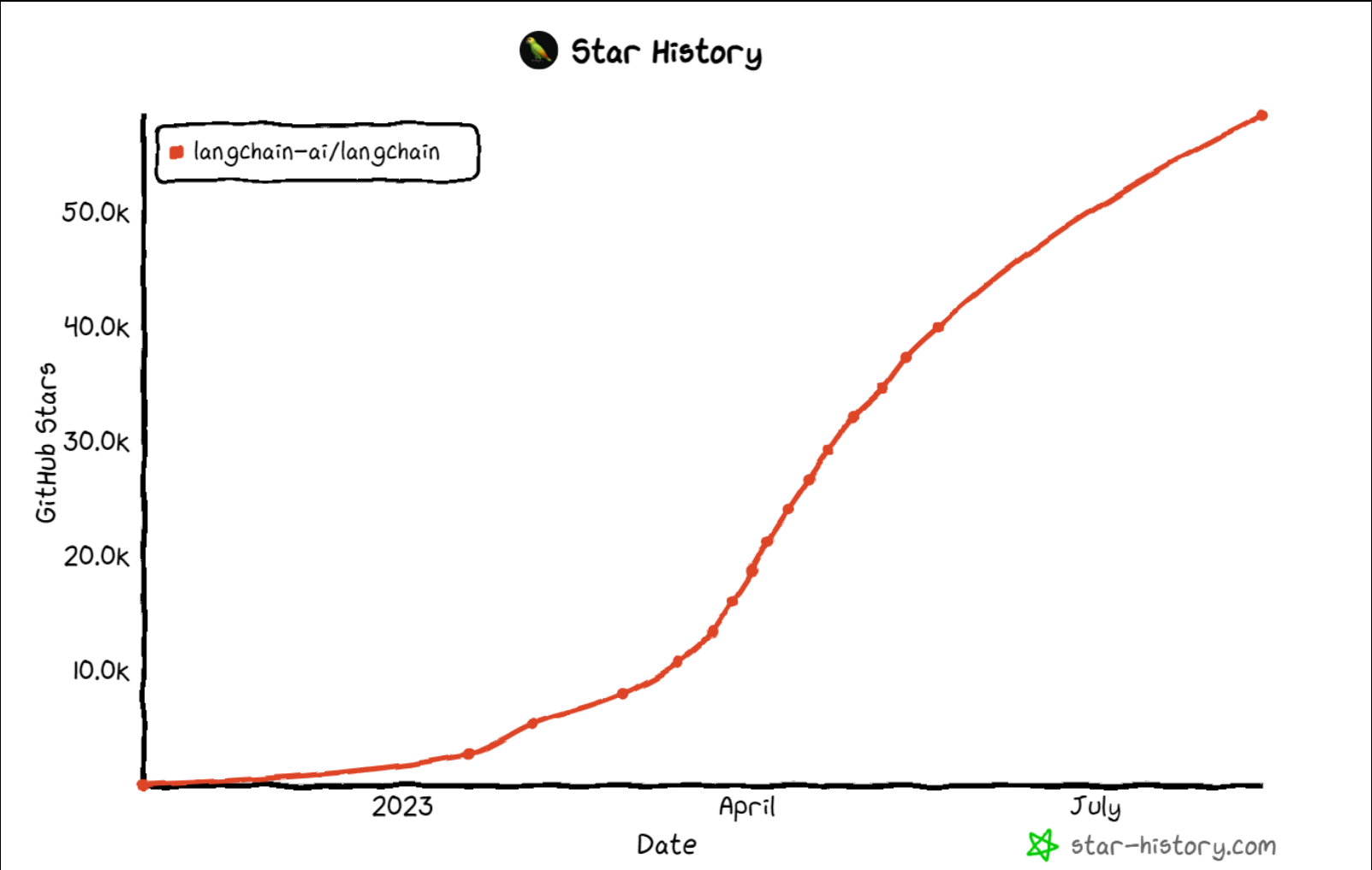


What is LangChain

- **LangChain** is an open-source framework that allows AI developers to combine LLMs with external sources of computation and data.



LangChain Popularity





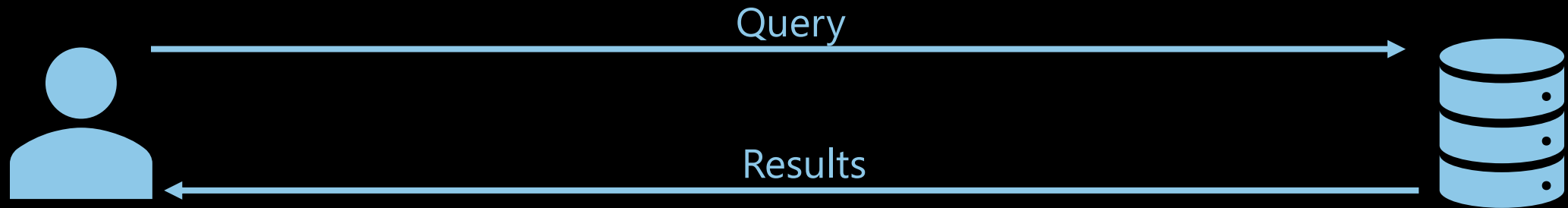
Models
Prompts
Indexes
Memory

Chains

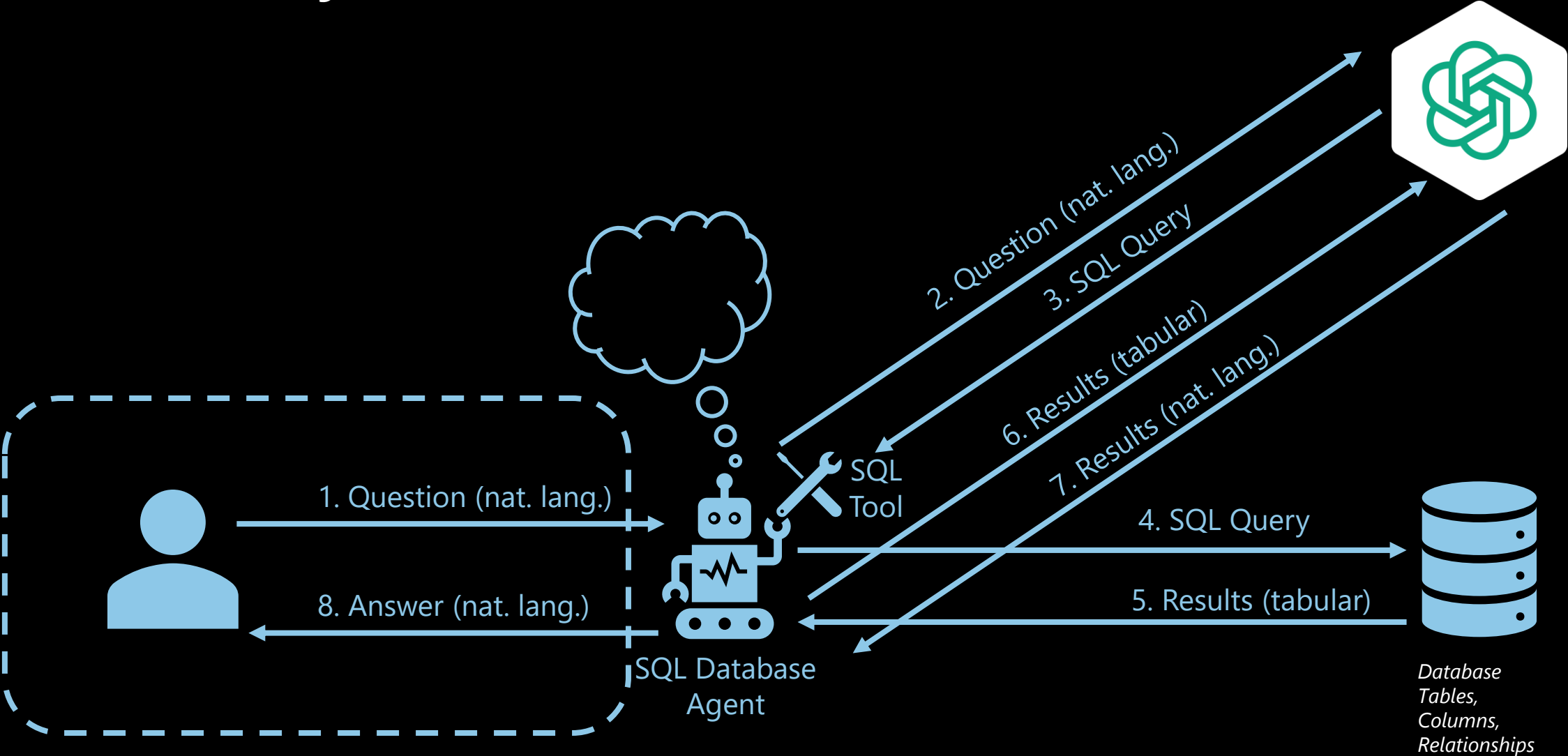
Agents

Tools

Query your Database



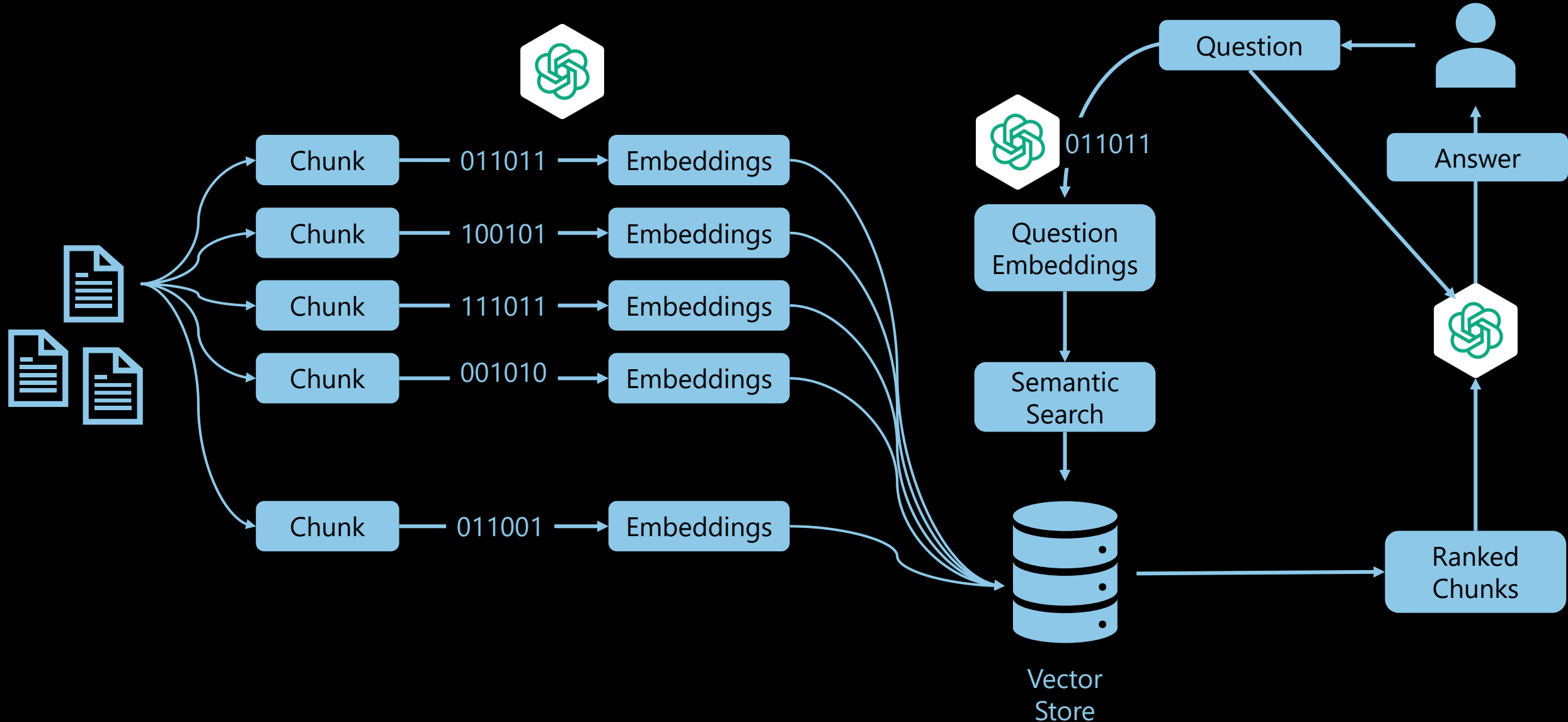
Chat with your Database



Chat with your Database

Demo

Chat with your PDF (Word, Text, Image, Website, ...)



Chat with your PDF

Demo

Thank you



<http://bit.ly/ChatWithYourData>