



Building Generative AI applications using Azure Integration Services

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EXCELLENCE IN RECRUITMENT



Azure Integration Services



Comprehensive flexible platform
enables the creation of tailored
solutions for unique
requirements



Logic Apps

Cloud-based workflow tool



API Management

Full API lifecycle management



Event Grid

Event routing service



Functions

Event-driven serverless code



API Center

Centralized API discovery hub



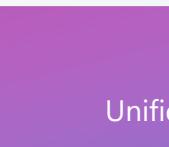
Service Bus

Reliable cloud message delivery



Data Factory

Data movement & ETL tool



Azure Integration Environment

Unified experience for managing and monitoring Azure Integration Services resources

Azure Logic Apps Investments to Drive AI Innovation

The diagram features a central purple AI chip with the letters 'AI' on it, surrounded by a network of white dots connected by lines. This central element is flanked by two white rectangular callout boxes. To the left, a circular icon shows a person at a desk with a chart, and below it is a stack of three blue cylinders. To the right, another circular icon shows a gear with arrows, and below it is a stack of three blue cylinders. The background is a light blue gradient with a faint network pattern.

**Boost Developer Productivity
with AI Capabilities**

Empower developers with the Workflow Assistant for instant support and enhanced productivity.

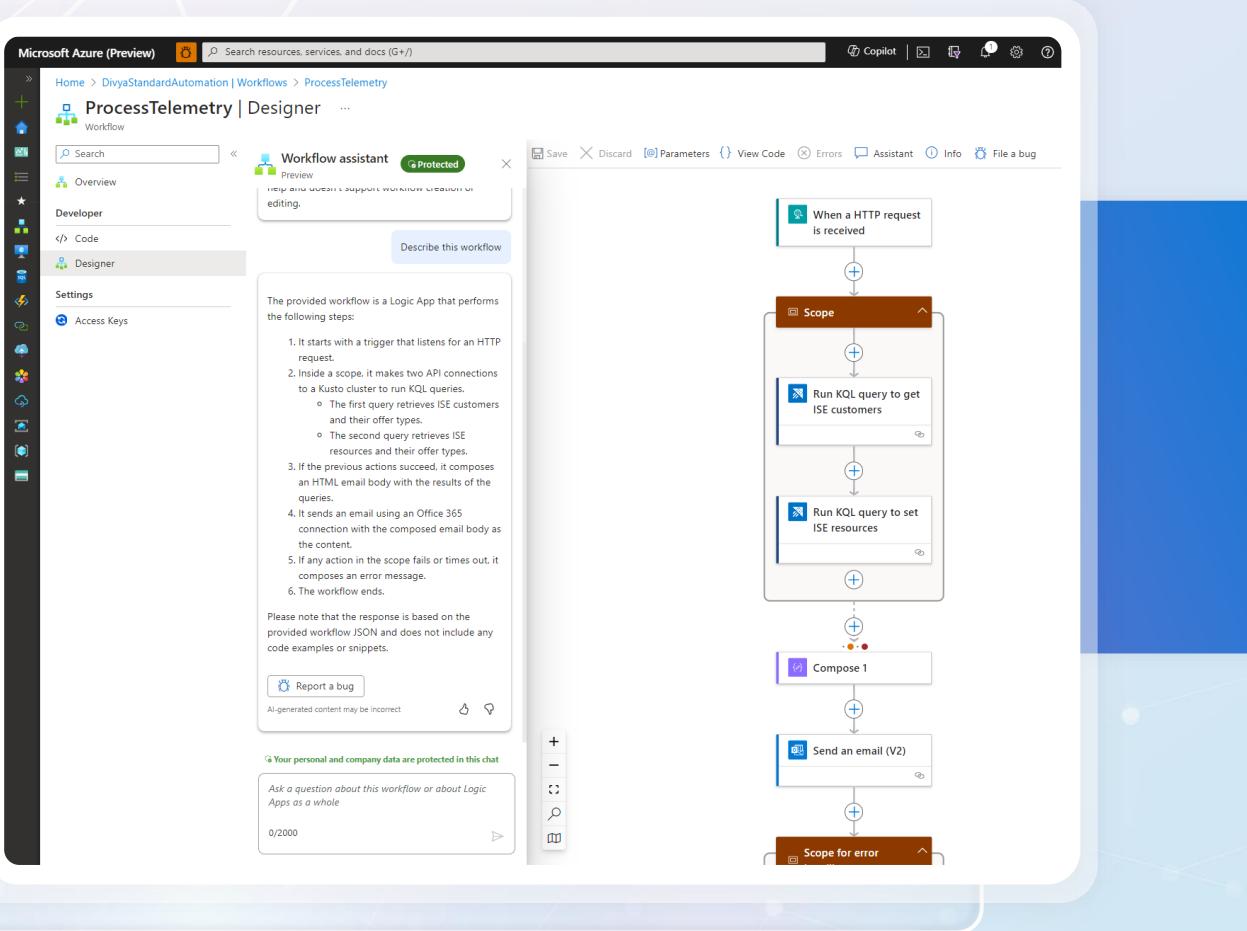
**Enable Intelligent App
Development with Platform
Capabilities**

Enabling seamless integration and connectivity to AI services through connectors, facilitating the creation of intelligent applications.

Workflow Assistant (copilot) in Logic Apps workflow designer



Streamline development experience with Workflow Assistant



Chat Interface

Seamlessly integrated within the Logic Apps designer

Powered by AI

Leveraging Azure OpenAI and ChatGPT technologies

Answer anything about



Describing Workflows



Logic Apps Capabilities



Integration best practices

Workflow Assistant as your Copilot

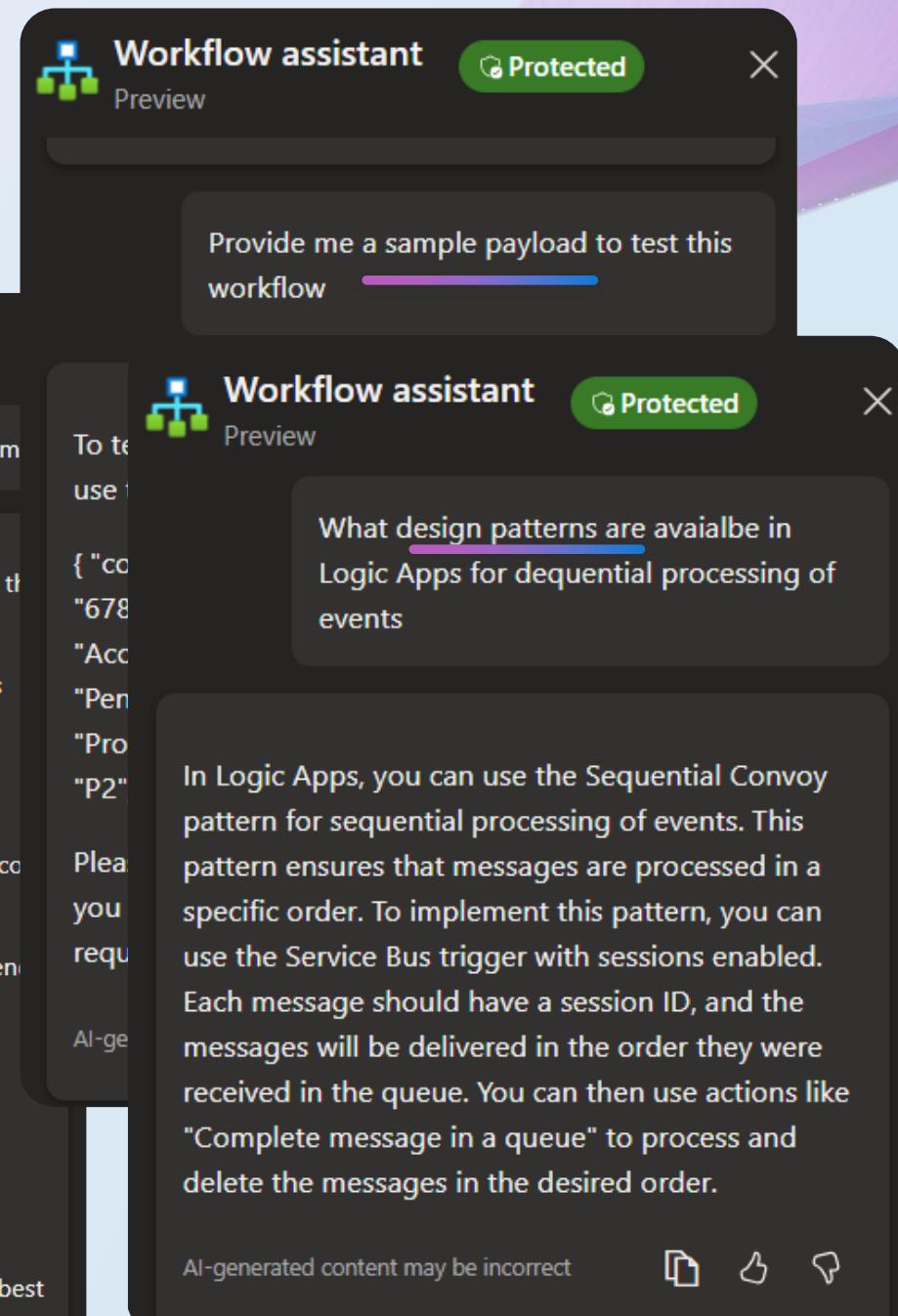
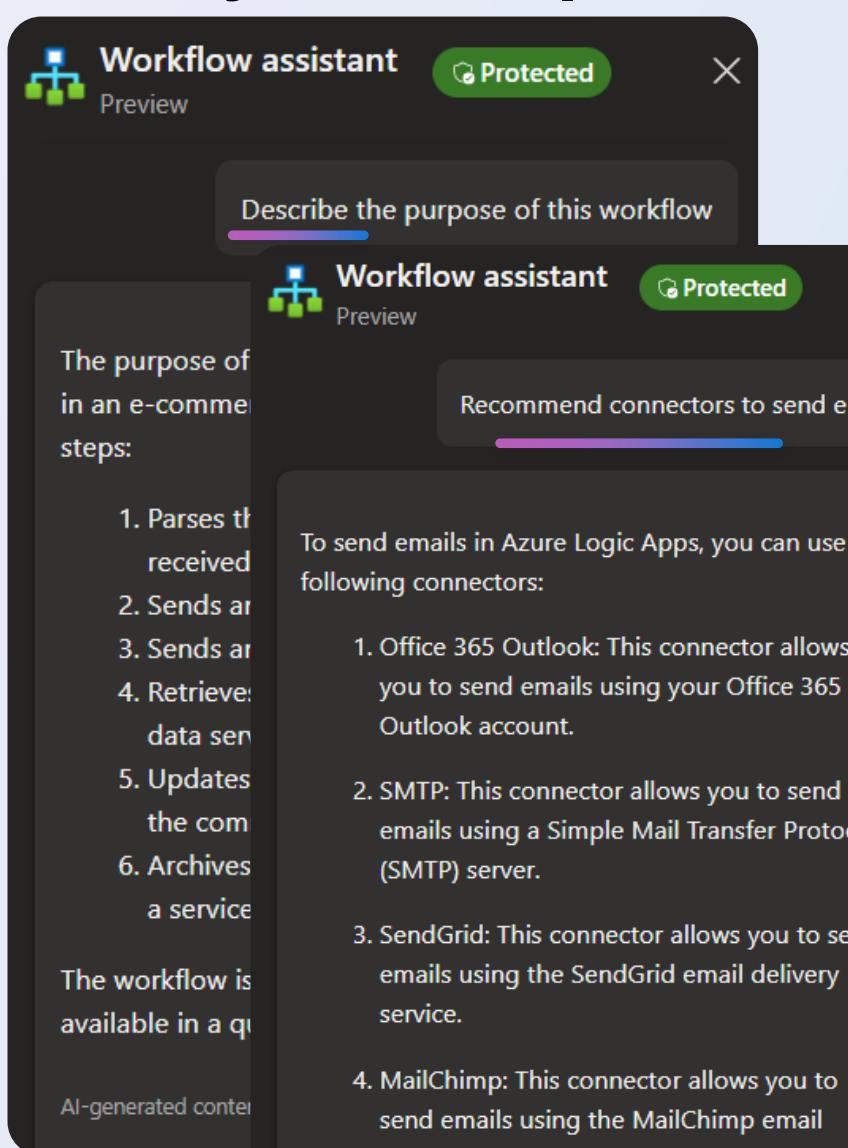
Describe workflow

Contextual Responses

Connector Recommendations

Testing

Scenarios/patterns Guidance



AI-generated content may be incorrect



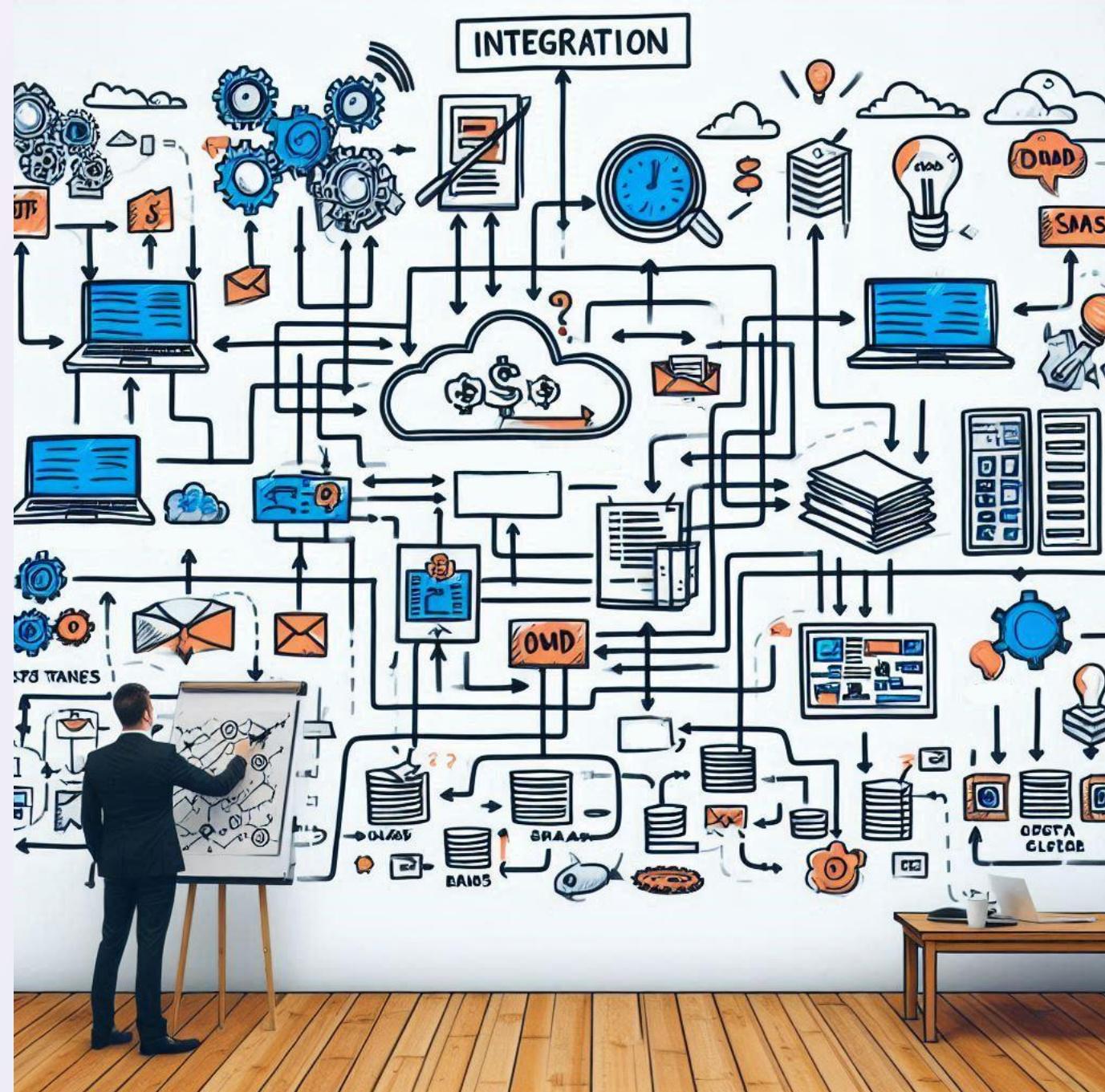
Demo



Innovate where you Integrate using
Generative AI



- There is a common misconception that to use Generative AI you need to build a ***new*** application
- And AI needs to be the ***center of that application***
- But, when it comes to Integration, the ***narrative can be different***

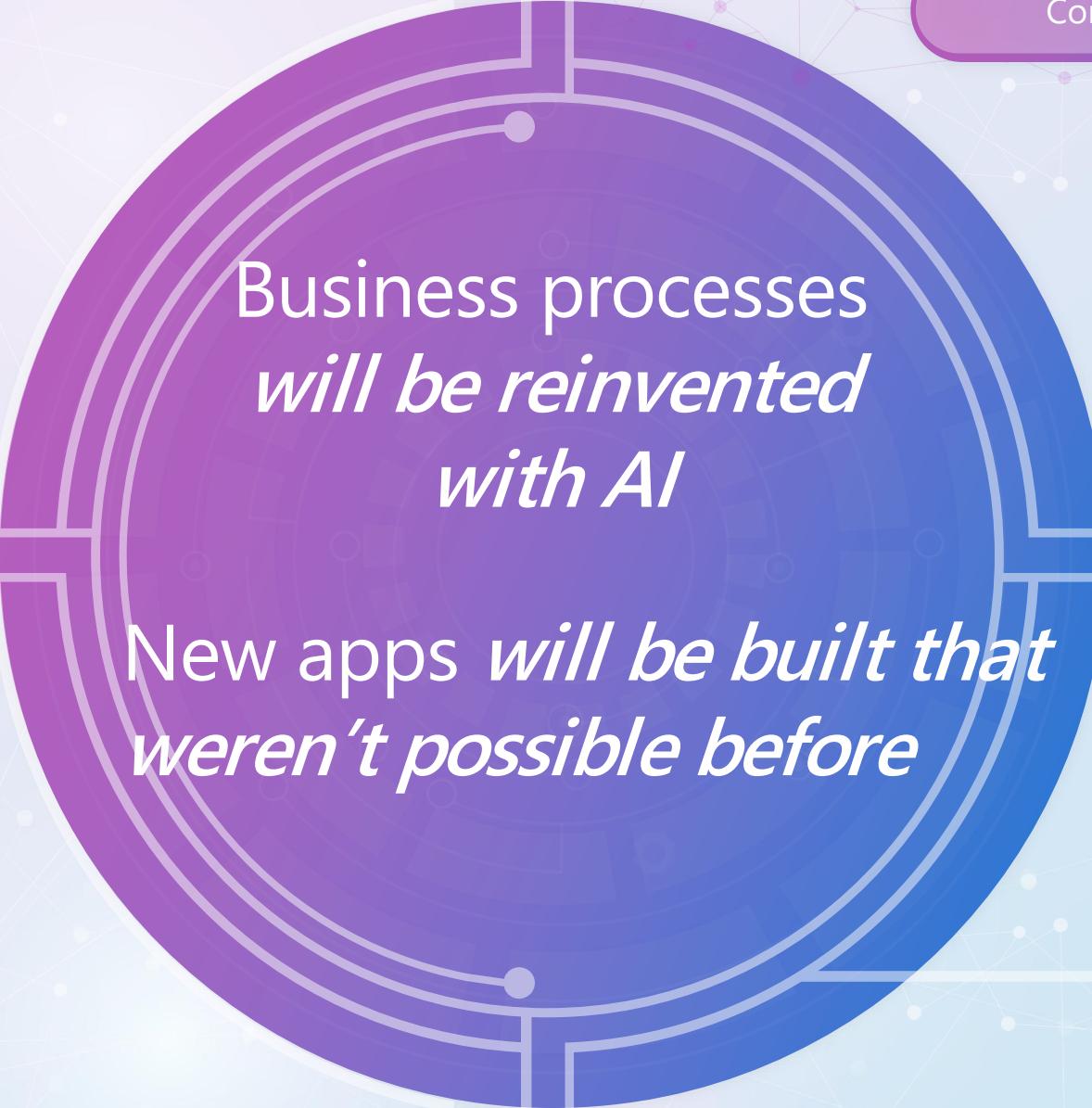


- Consider ***the data that is moving*** through your landscape?
- Data may include ***Purchase Orders, Inventory, Work Orders, Financial Statements, Customer service tickets*** etc.
- Your organization feels that this data is so important that it needs to be ***shared*** with other systems
- How do you gain insights on all of this data ***without large ETL/ELT programs?***



- With your iPaaS located in the middle of all transactions, ***you have access to a lot of valuable information***
- You just haven't had ***the opportunity to consolidate it and reason on top of it.***

Until Now!!!



Business processes
*will be reinvented
with AI*

New apps *will be built that
weren't possible before*

Conversational Agents

Content Summarization

Content Recommendation

Legal and Compliance assistance

Customer Support

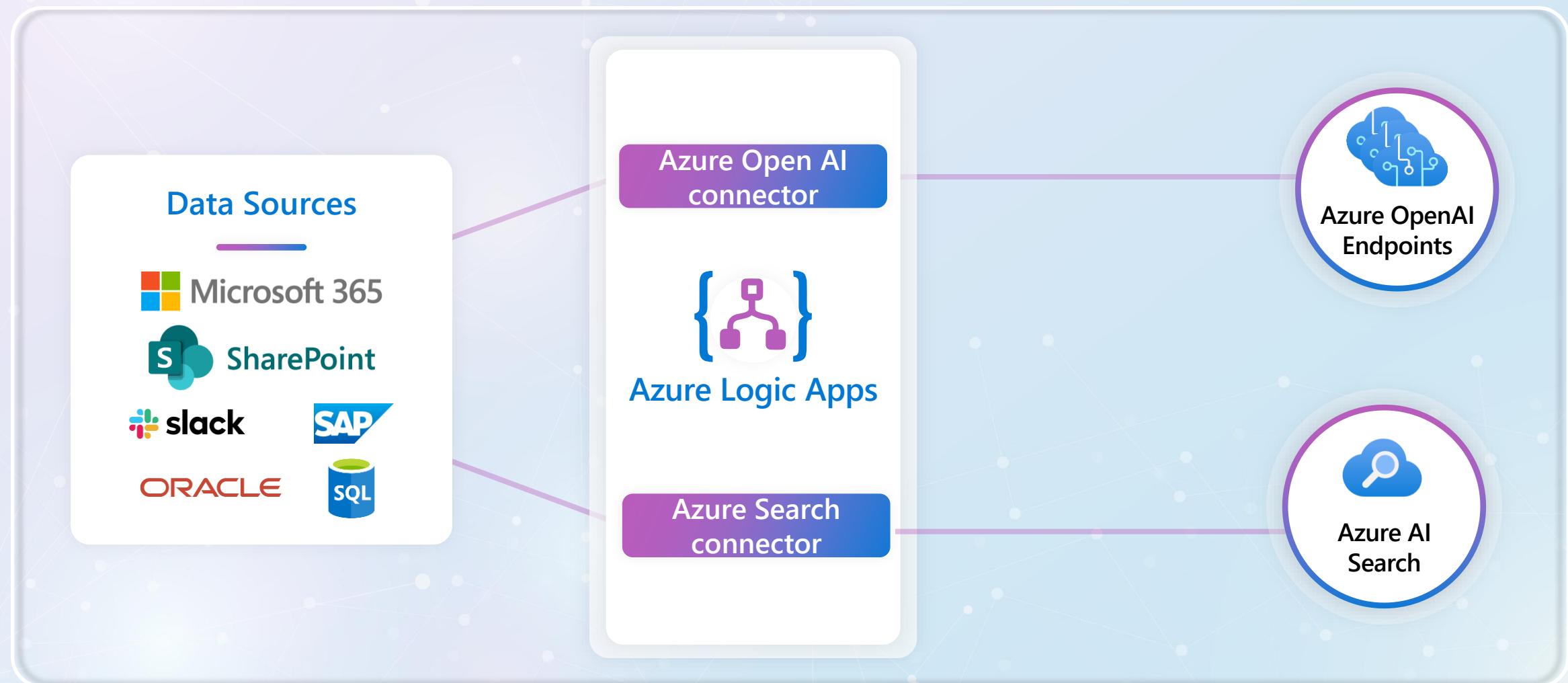


Azure API
Management and
Azure Logic Apps
are *fundamental* to
AI development
and *success*

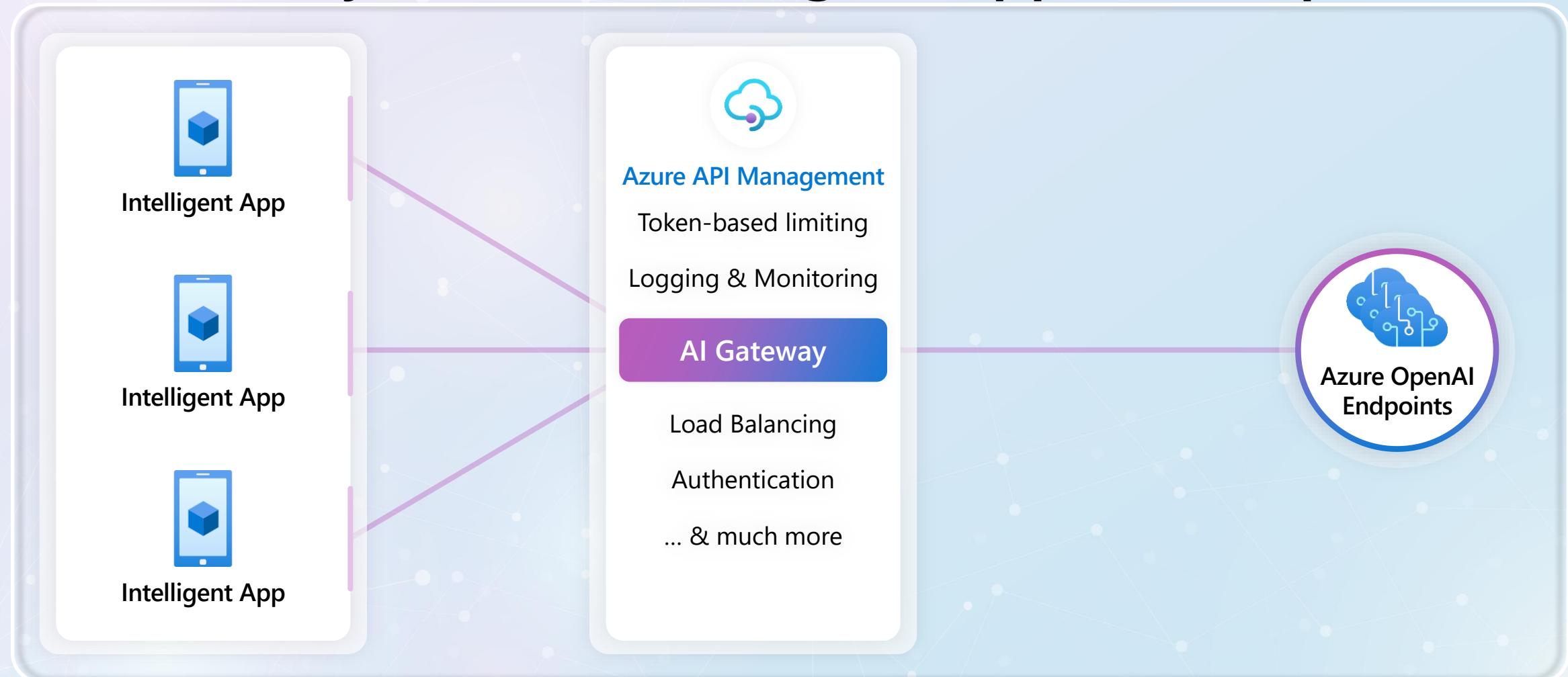


Enable *interoperability*,
data access, and *seamless*
connectivity

Harnessing Logic Apps for Building AI-powered Apps



Harnessing Azure API Management to Balance Traffic and Securely Connect Intelligent Apps with OpenAI



Logic Apps as Plugins



What is a Generative AI Plugin?

 Large Language Models excel at analyzing large data sets to identify patterns and trends

 They are also good at:

- Providing recommendations
- Summarizing, understanding sentiment and adjusting tone
- Extraction of entities
- Content generation – like the images previously used in this presentation
- FAQ Chat experiences

 However, LLMs can leave the 'last mile of automation' unfulfilled

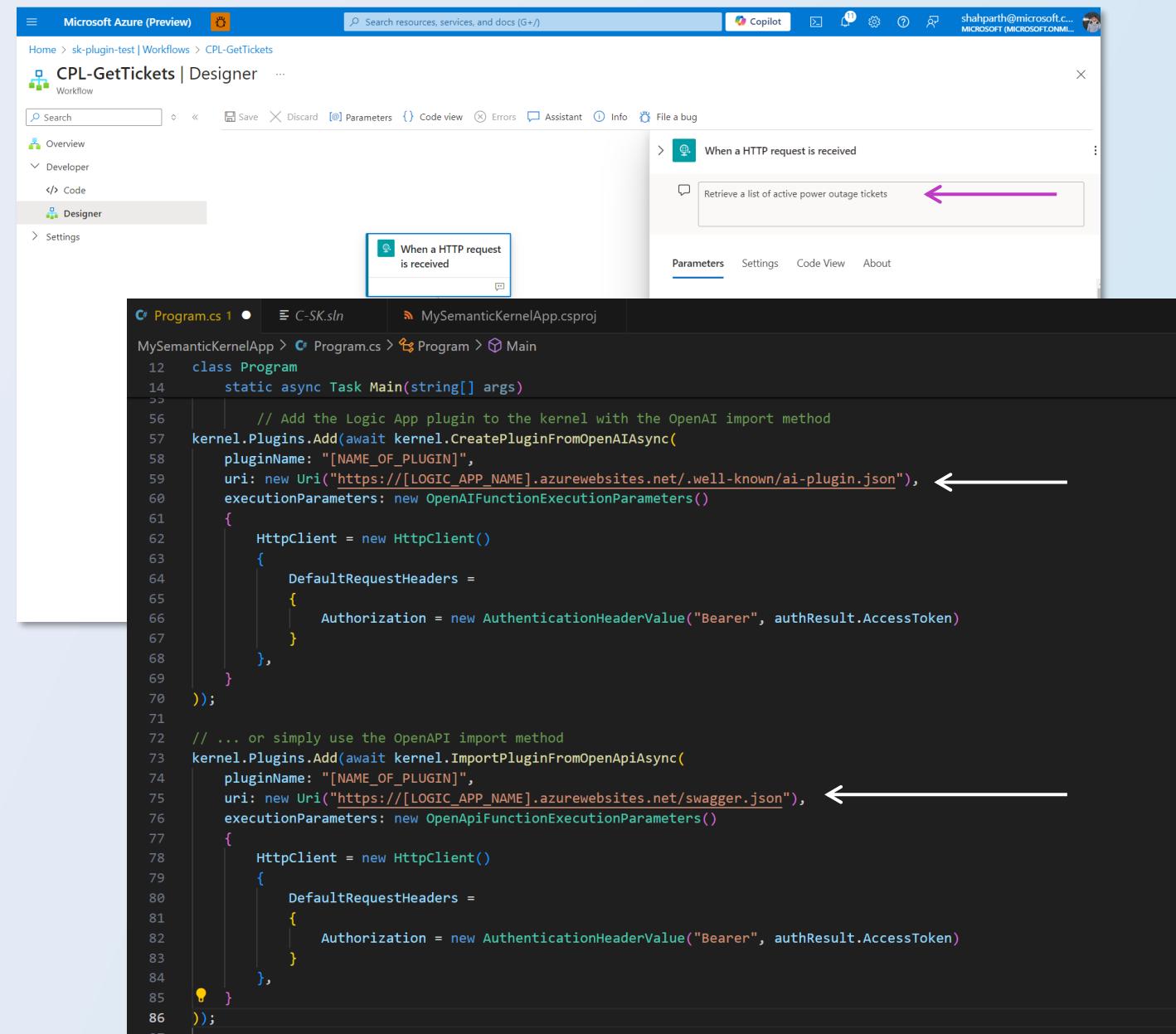
- Tell you what you need to do, but not actually do it for you
- Access real-time information

 Plugins can solve this last mile of automation through connectivity to LOBs and Systems of Record

 Logic Apps is particularly well suited to solve this problem due to our low-code composability and connector library

Semantic Kernel plugin

- Combine multiple services and APIs to create sophisticated multi-agent workflows.
- Utilize already built workflows to add as plugin to the SDK
- Leverage Semantic Kernel's advanced AI models to make real-time, context-aware decisions within your business processes.
- Simply annotate the workflows, configure EasyAuth and add the swagger.json file as plugin to your code



<https://aka.ms/skplugins/logicapps>

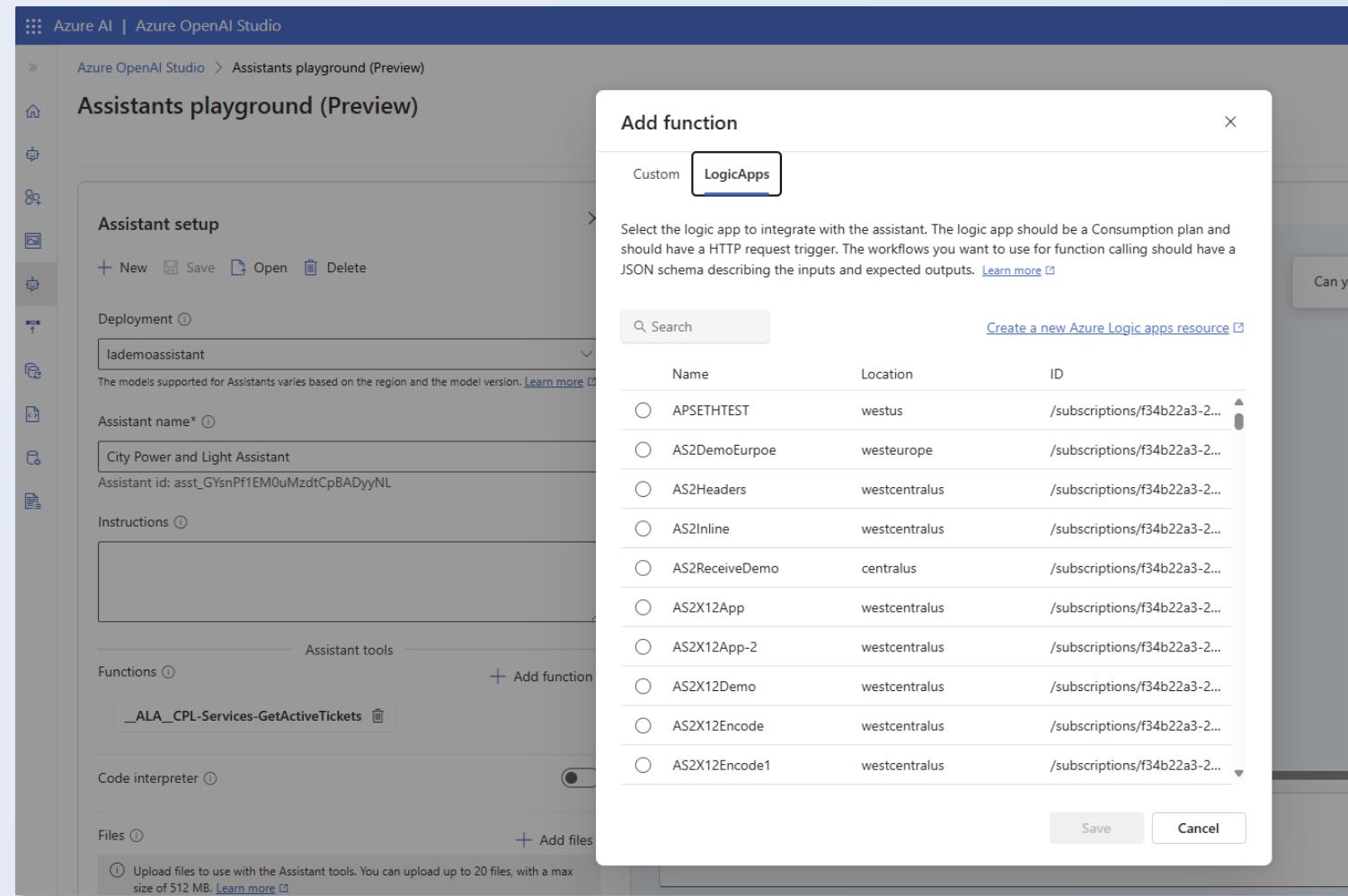
Demo

Azure OpenAI Assistants with Azure Logic Apps



Azure OpenAI Service Assistants

- Empowers developers to build agent-like features into their applications
- Leveraging the latest GPT models, tools and knowledge, create stateful copilots grounded in enterprise data
- Enrich your enterprise data with real-time data using functions
- Functions can be authored using custom code or Logic Apps workflows
- Logic Apps connectors unlock transactional data across 1000+ systems in the enterprise





Azure OpenAI Assistants with Azure Logic Apps

Preview

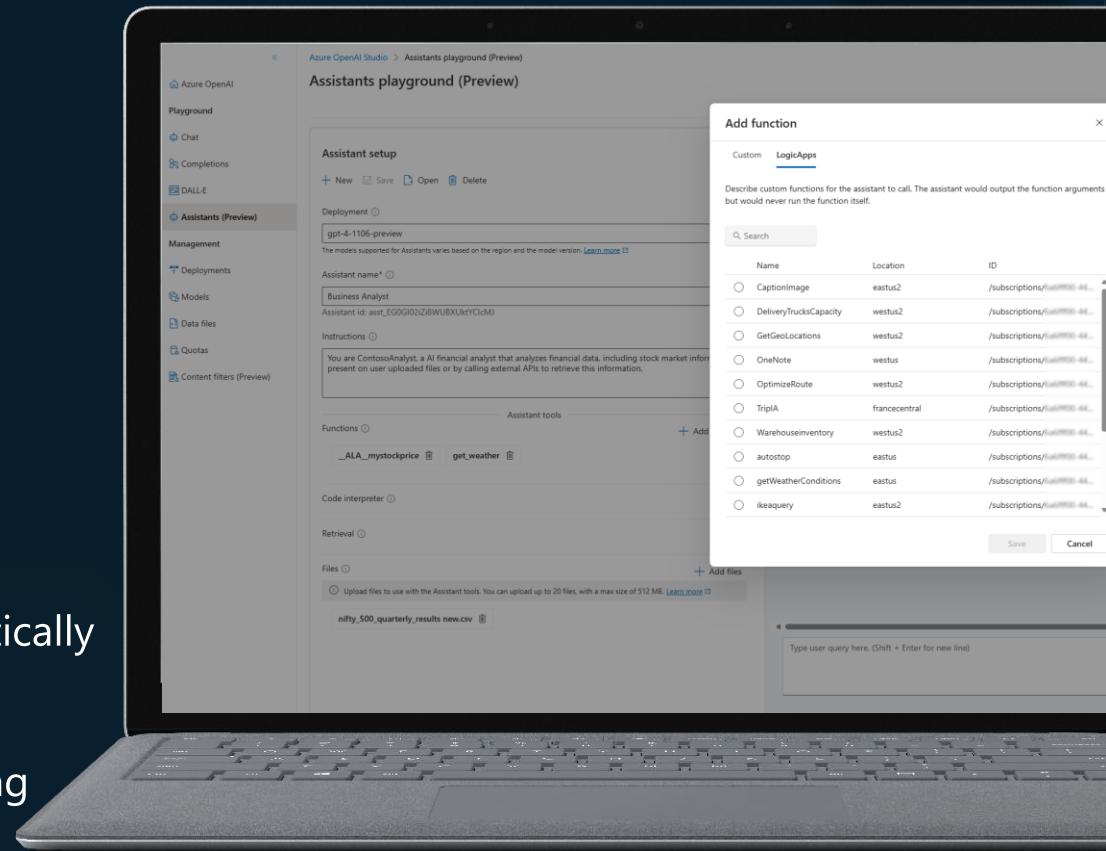
Leverage Azure Logic Apps to build AOAI assistants with function calling

<https://aka.ms/assistants/logicapps>

Import your REST APIs implemented in Logic Apps as *AI Functions*

AI Studio invokes the Logic Apps workflow (as AI function) automatically based on the user prompt

Build new Logic Apps workflows as AI functions in AI Studio (Coming soon)



Demo

[Deploy GPT-4o](#)

GPT-4o is now available in many regions. Deploy and try it in the chat playground.

[Learn more](#)[Go to deployments](#)[Azure OpenAI](#)

Azure OpenAI Studio

[Privacy & cookies](#)

Explore Azure AI Studio →

Playground



Completions



Assistants (Preview)

Management



Models



Quotas

Content filters (Preview)

Welcome to Azure OpenAI service

Explore the generative AI models, craft unique prompts for your use cases, and fine-tune select models.

Get started

Chat playground

Design a customized AI assistant using ChatGPT. Experiment with GPT-3.5-Turbo and GPT-4 models.

[Try it now](#)

Assistants playground PREVIEW

Speed up development of GPT-powered AI Assistants with prebuilt conversation state management and customization tools.

[Try it now](#)

Bring your own data

Ground your own data on advanced AI models to create conversational copilots that aid user comprehension, task completion, and decision-making.

[Try it now](#)

Completions playground

Experiment with completions models for use cases such as summarization, content generation, and classification.

[Try it now](#)

DALL-E playground PREVIEW

Generate unique images by writing descriptions in natural language.

[Try it now](#)

Whisper Speech-to-Text PREVIEW

Transcribe your audio using the Whisper model. Use text prompts to improve transcription quality.

[Create a Whisper deployment](#)

Try out common examples

Customer support agent

Get started with a sample chat setup for a customer support agent scenario

[Try it now](#)

Writing assistant

Get started with a sample chat setup for marketing content creation

[Try it now](#)

Summarize an article

Get started with abstractive summarization of a news article

[Try it now](#)

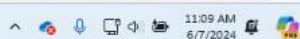
Create cover art

Unleash your creativity by generating creative images for cover art and other commercial use cases

[Try it now](#)

Get access to new features and capabilities

- [Responsible AI modifications](#)
- [Additional use cases](#)
- [Additional resources](#)



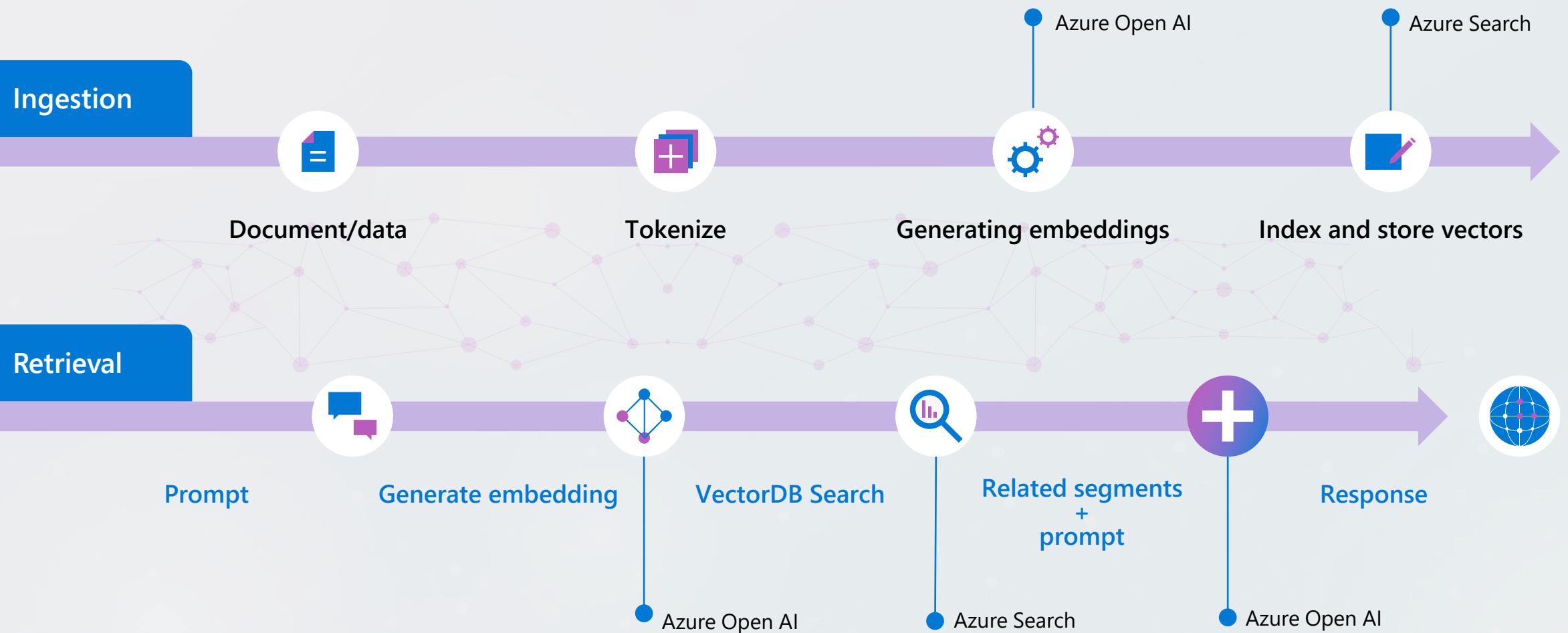
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6/7/2024

Retrieval Augmented Generation (RAG)



Retrieval Augmented Generation (RAG) pattern



Connectors for AOAI and AI Search



Azure OpenAI

Connects to Azure OpenAI to perform operations on large language models.

Get multiple embeddings

In App

Get an embedding

In App

Get chat completions

In App

Get multiple chat completions

Preview In App

Get completion

Preview In App



Azure AI Search

Connects to Azure AI Search for data search and indexing operations.

Index multiple documents

In App

Index a document

In App

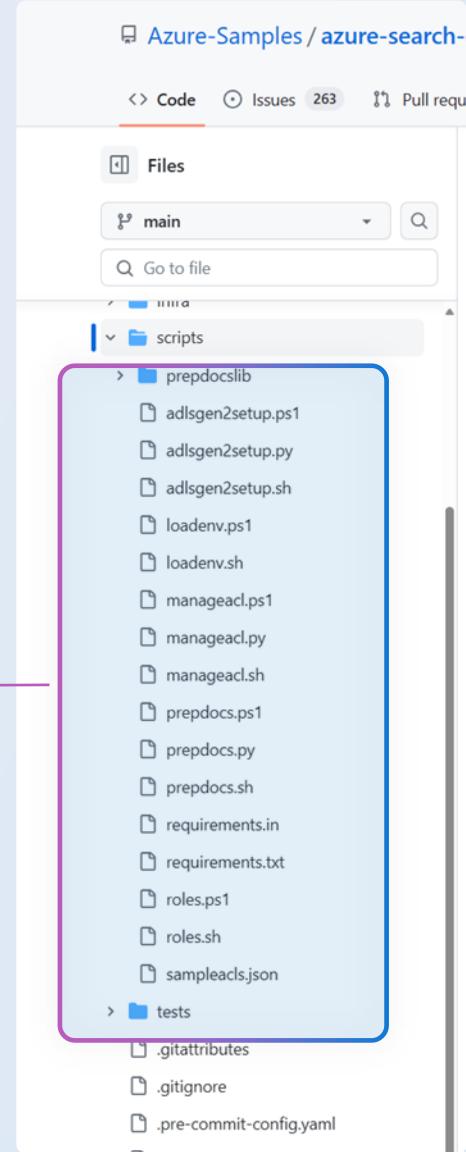
Search vectors

In App

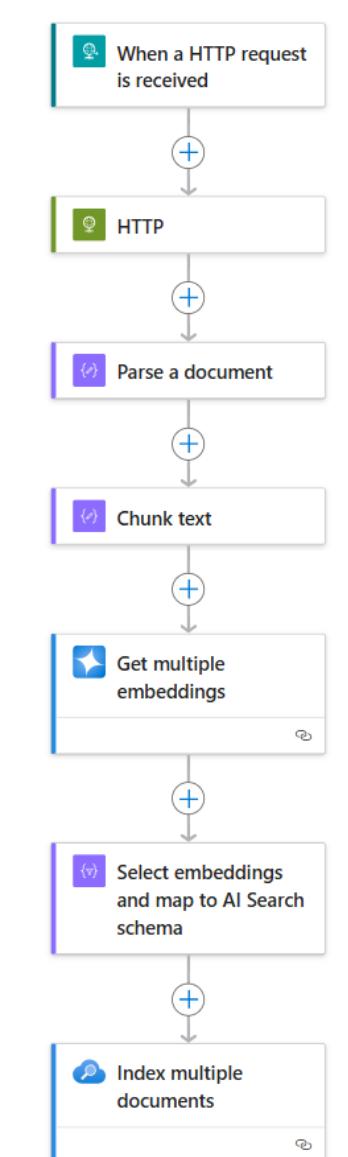


Lines of code to write/manage with code-first approach

Ingestion flow with code



Ingestion flow with Logic Apps connector



Learn More: <https://aka.ms/LogicApps/OpenAI/GA>

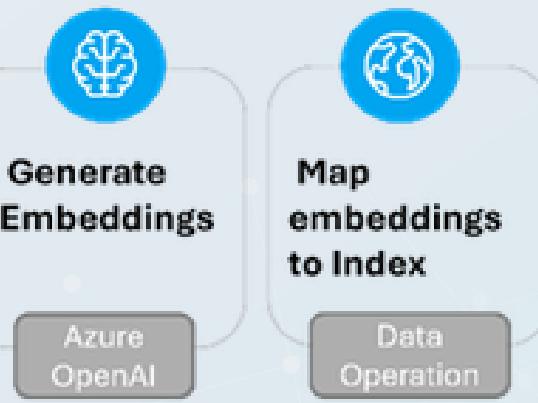
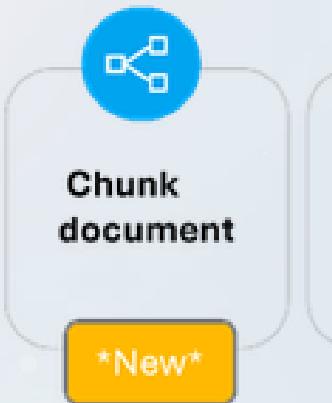
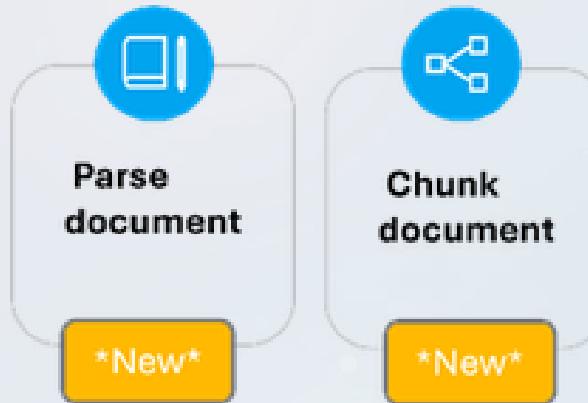
New Ingestion capabilities

RAG Ingestion with Azure Logic Apps

Collect



Prepare document



Ingest



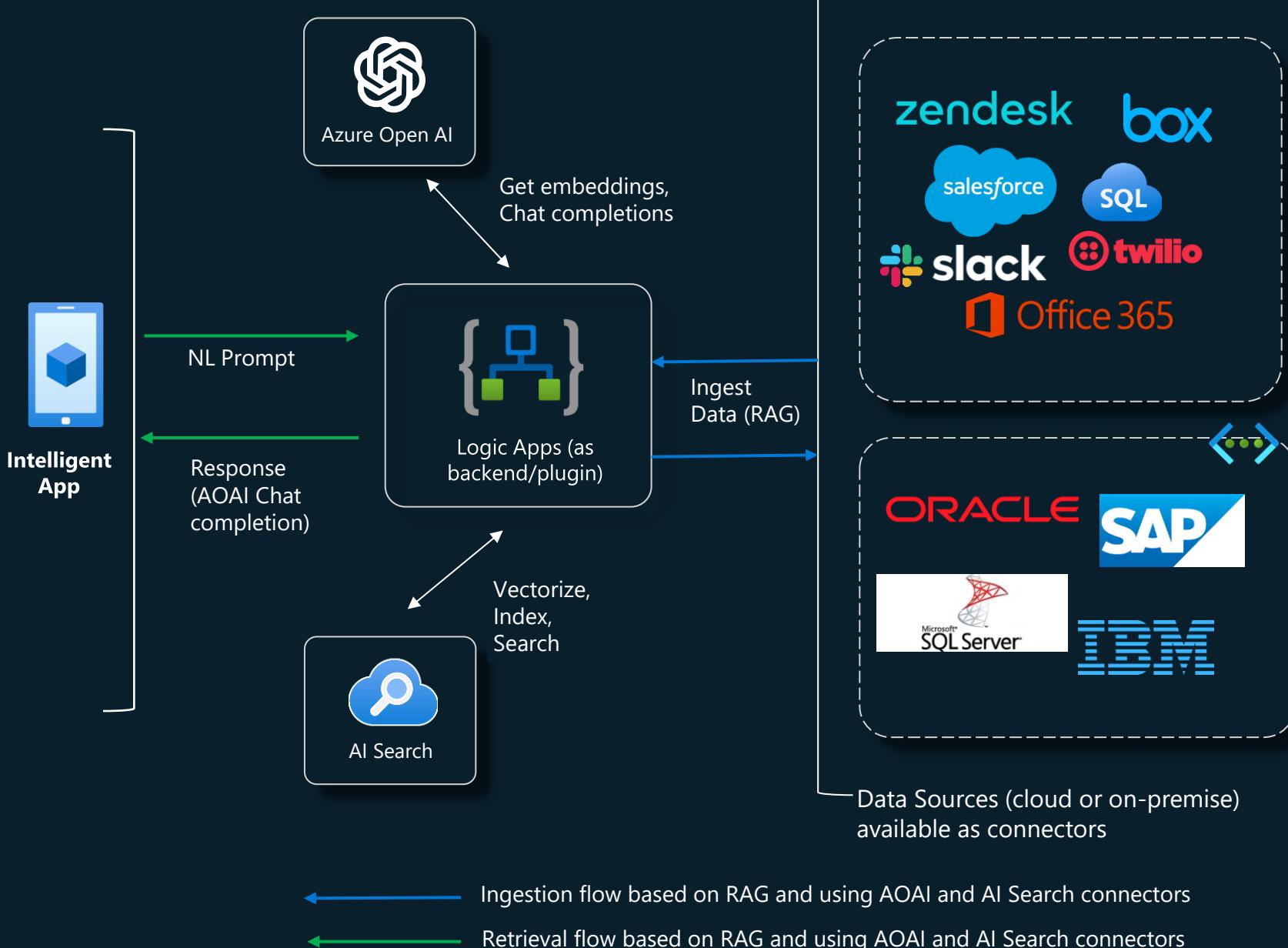
{ } Azure Logic Apps: RAG and Plugin

Ingest data from out of box connectors (1400+)

Use pre-built Azure Open AI and AI Search connectors for RAG patterns

Workflow orchestration capabilities for automation and event driven AI scenarios

Run your AI applications within VNET and dedicated compute



Demo

Templates

Home > LogicApp-Demo2 | Workflows >

Templates

Search

Connectors Categories

All All

Business Process Tracking Alert Notifications By: Microsoft Type: Workflow Trigger: Request

Enable self-service SAP user unlock using BAPI By: Microsoft Type: Workflow Trigger: Recurrence

IBM MQ Browse Lock Pattern - get message from a queue By: Microsoft Type: Workflow Trigger: Event

RAG-Based Workflow for Document Ingestion and Indexing Using Azure OpenAI and Azure AI Search By: Microsoft Type: Workflow Trigger: Request

This template is based on RAG (Retrieval-augmented generation) pattern for document processing and indexing using Azure Open AI and Azure AI Search. Triggered by an HTTP request, the workflow fetches a document from a specified endpoint, parses the content, and chunks the text based on token size. Each chunk is then processed to generate embeddings via an OpenAI deployment. The text chunks and their embeddings are mapped to a schema suitable for Azure AI Search, and finally the documents are indexed in Azure AI Search for efficient retrieval and analysis.

Workflow preview Overview



Pre-built workflows

Releasing end of August

Home > LogicApp-Demo2 | Workflows >

Templates

Search

Connectors Categories

All All

A to Z, ascending

Business Process Tracking Alert Notifications By: Microsoft Type: Workflow Trigger: Request

Connectors

Enable self-service SAP user unlock using BAPI By: Microsoft Type: Workflow Trigger: Recurrence

Connectors

IBM MQ Browse Lock Pattern - get message from a queue By: Microsoft Type: Workflow Trigger: Event

Connectors

RAG-Based Workflow for Document Ingestion and Indexing Using Azure OpenAI and Azure AI Search By: Microsoft Type: Workflow Trigger: Request

Connectors

RAG-Based Workflow for Document Ingestion and Indexing Using Azure OpenAI and Azure AI Search. The document to be ingested is read from Sharepoint. By: Microsoft Type: Workflow Trigger: Request

Connectors

Request Response over HTTP By: Microsoft Type: Workflow Trigger: Request

Connectors

Detecting the status of a CAD Sales Order By: Microsoft Type: Workflow Trigger: Request

Sending Bus Back Log Patterns - Get messages

Sending Bus Back Log Patterns - Get messages

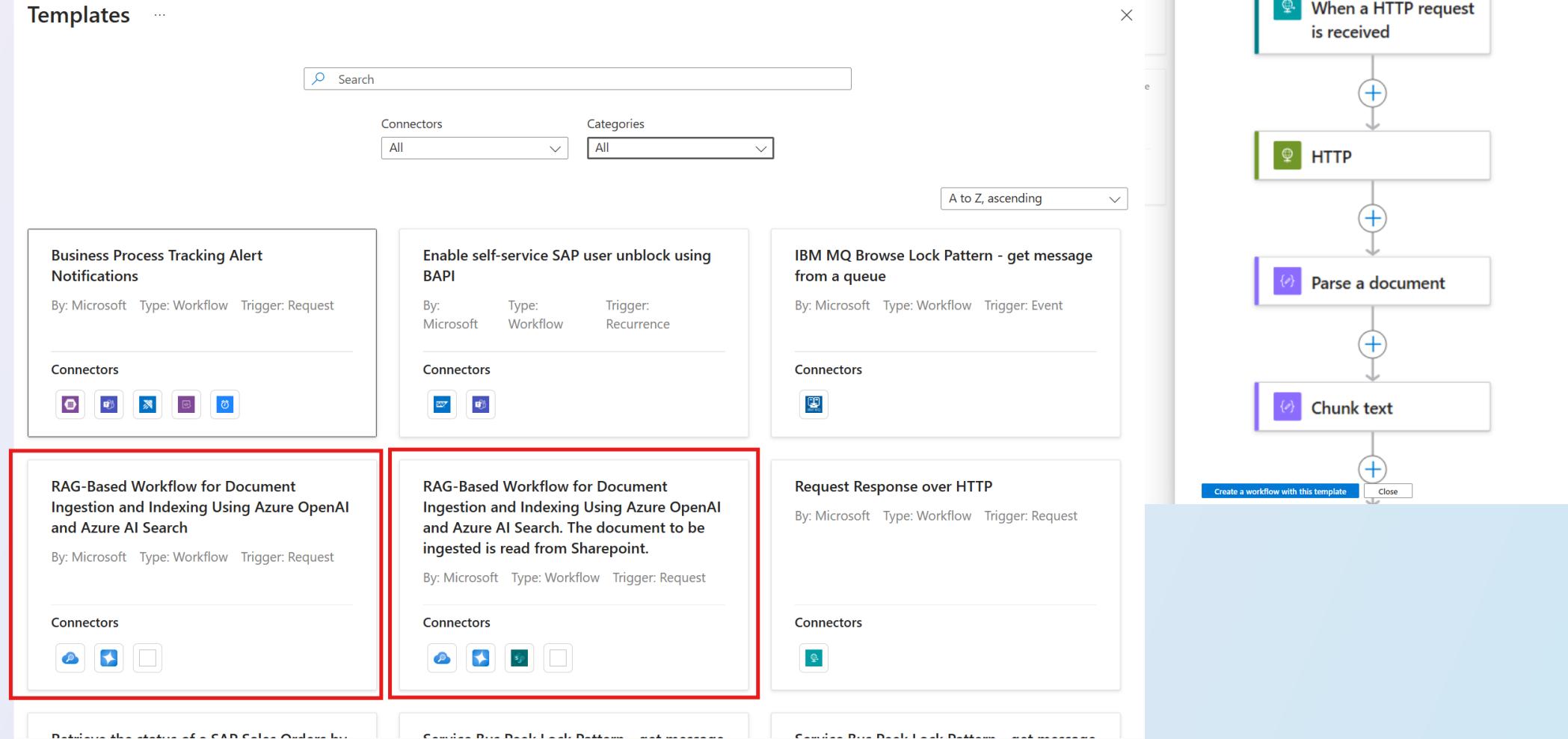
When a HTTP request is received

HTTP

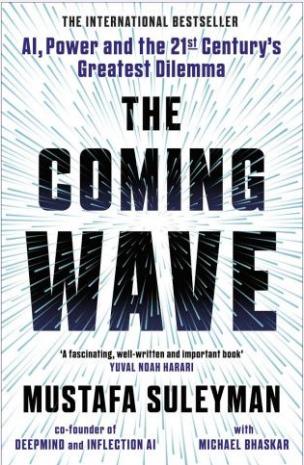
Parse a document

Chunk text

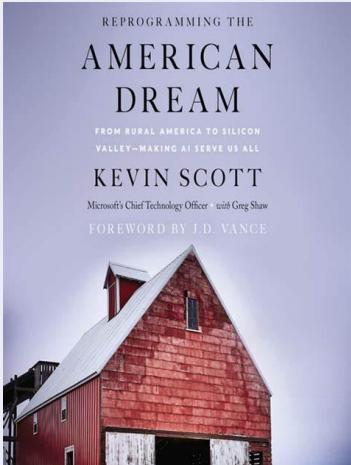
Create a workflow with this template Close



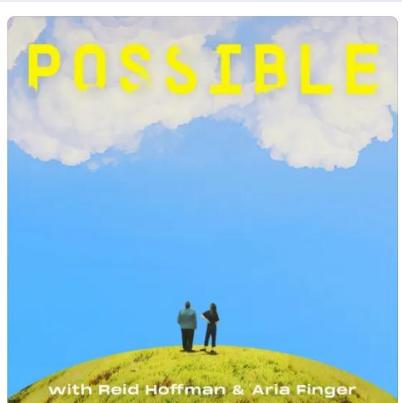
Additional AI Resources



Mustafa Suleyman
CEO of AI, Microsoft



Kevin Scott
EVP/CTO, Microsoft



Reid Hoffman & Aria Finger
LinkedIn Co-founder, Microsoft Board member

AI Samples – <https://github.com/Azure/logicapps>

Document ingestion

SQL data ingestion

City Power Light Customer Service

Stack Overflow Q/A response

Logic Apps as Semantic Kernel plugin, and more

Subscribe to our blog post to find the latest newsletter
- <https://aka.ms/aistechcommunity>

Logic Apps Community Day

Sep 26, 2024



Save the date – **September 26, 2024**

Full day of presentations from our Product Group
and Community Experts!

<https://aka.ms/logicappscommunityday>



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