

A LOW-CODE APPROACH TO BUILDING A CHATGPT APP WITH CUSTOM DATA



WHO AM I?

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Who is the king or queen of England?



As of my last training data in September 2021, Queen Elizabeth II was the reigning monarch of the United Kingdom. However, I do not have access to real-time information or updates after that date, so this response is based on the current monarch as of your asking in 2023.

Please verify from a reliable source for the most current information regarding the British monarchy.



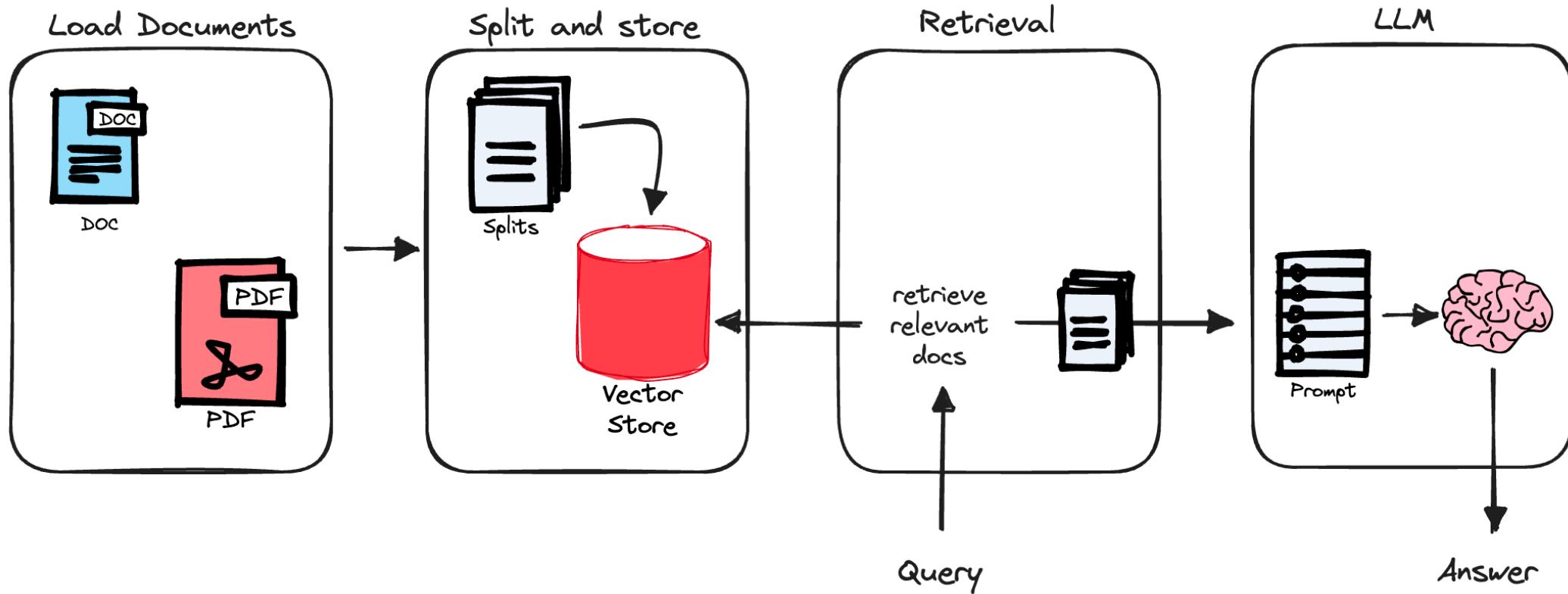
Who is the King or Queen of England?

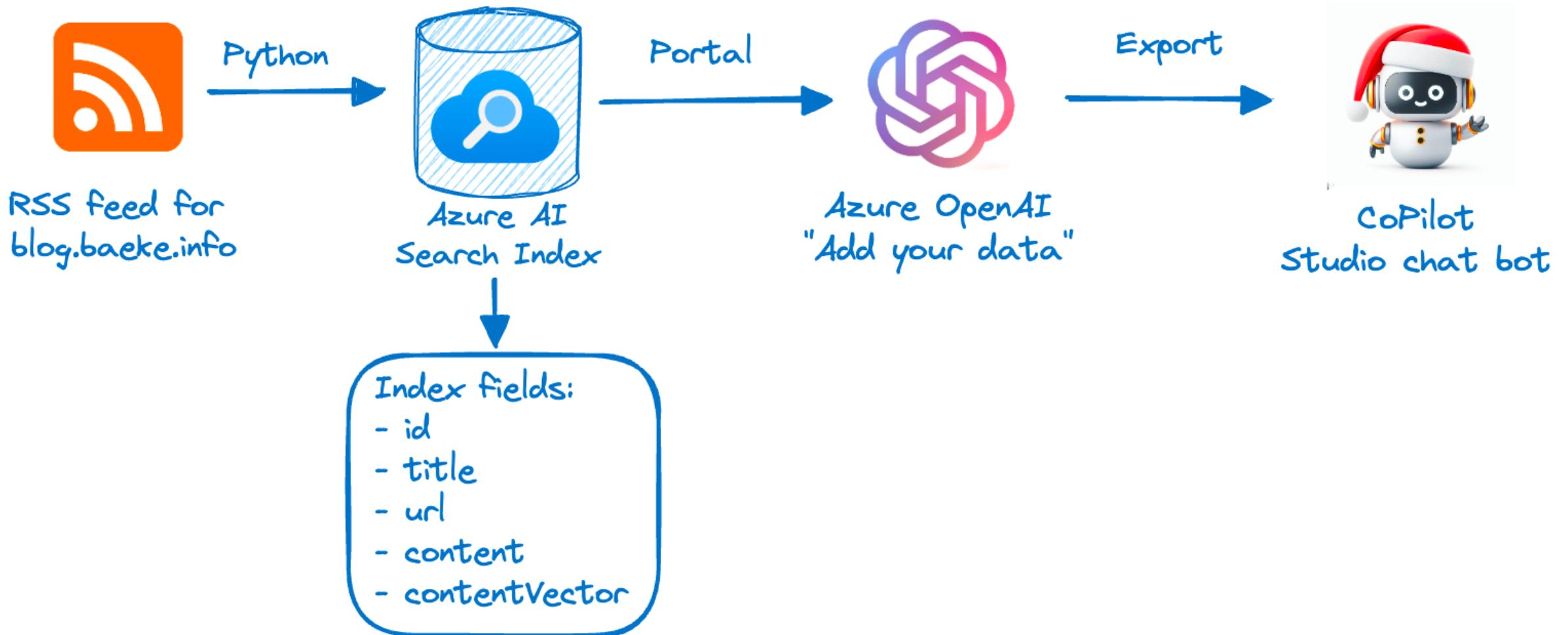


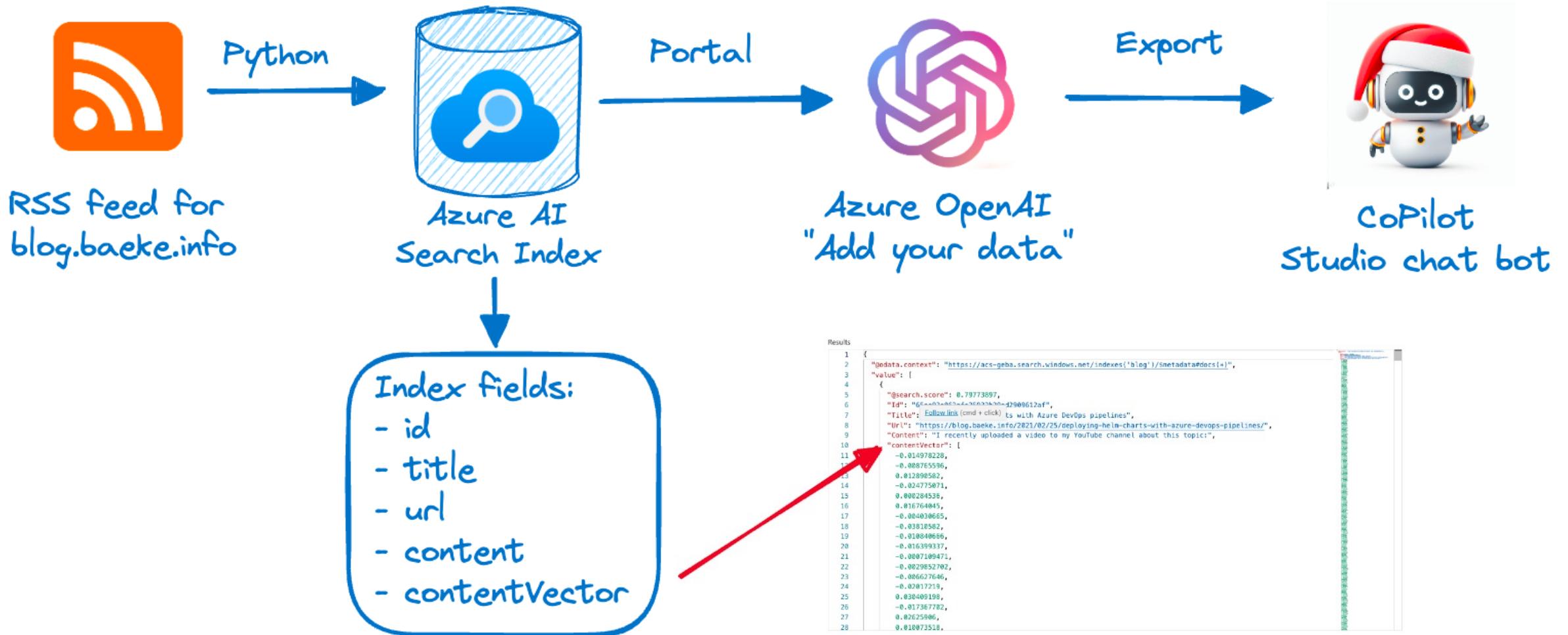
Finished browsing

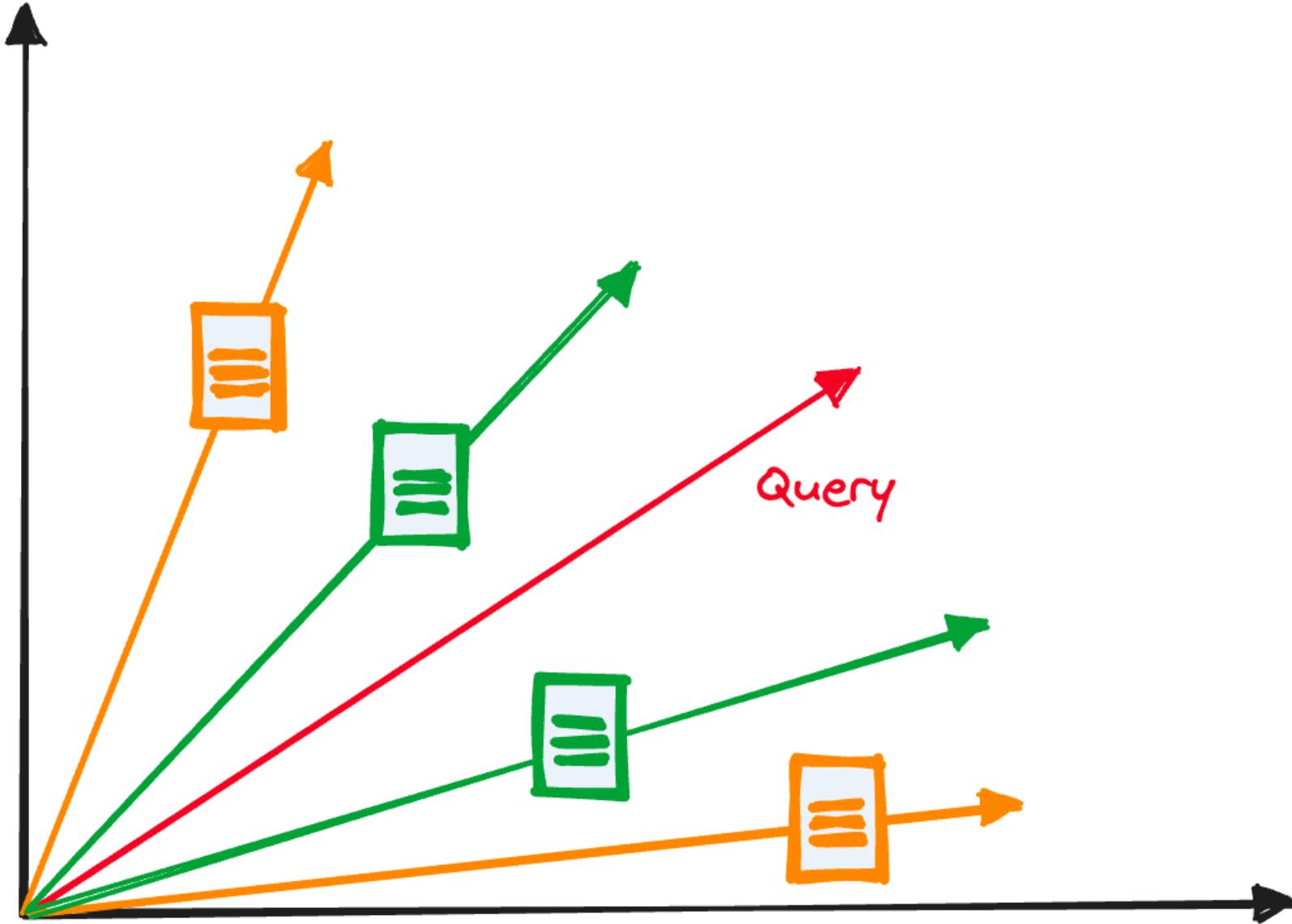
The current monarch of the United Kingdom is King Charles III, who ascended to the throne on September 8, 2022, following the death of his mother, Queen Elizabeth II¹. He was officially proclaimed King in a ceremony at St James's Palace in London on the Saturday following Queen Elizabeth II's death². King Charles III is set to be coronated on May 6, 2023, at Westminster Abbey in London, with his wife, Camilla, as Queen Consort³. It's notable that King Charles III, at the age of 74 during his ascension, became the oldest person to be crowned in British history. The United Kingdom has welcomed a new queen figure, Camilla, albeit in the role of Queen Consort, alongside King Charles III⁴.











EMBEDDING MODEL

- Azure OpenAI provides the **text-embedding-ada-002** model
- Text as input, a vector as output
- The OpenAI model outputs 1536 dimensions
- OpenAI recommends cosine similarity as the distance function





```
from gpt4all import GPT4All, Embed4All
text = 'The quick brown fox jumps over the lazy dog'
embedder = Embed4All()
import numpy as np

sentences = [
    "The sun sets behind the mountains, painting the sky with vibrant hues of orange and pink.",
    "In the bustling city, people hurriedly rush to catch their morning train, sipping coffee on the go.",
    "The old oak tree in the park has witnessed generations of picnics, laughter, and children's games.",
    "Deep in the forest, the silence is broken only by the gentle rustling of leaves and the songs of birds.",
    "A cozy fireplace crackles in the cabin, warming the room as snow falls softly outside.",
    "The scent of freshly baked bread wafts through the air, drawing hungry customers into the bakery.",
    "As the waves crash against the shore, seashells of various shapes and colors wash up on the beach.",
    "High in the mountains, a solitary eagle soars gracefully, scanning the landscape for prey.",
    "The ancient castle, with its towering turrets, holds many secrets from a bygone era.",
    "Fields of colorful wildflowers stretch as far as the eye can see, attracting bees and butterflies."
]
```



```
# embed the sentences and save the embeddings in a list
embeddings = []
for sentence in sentences:
    embeddings.append(embedder.embed(sentence))

question = "What scent draws hungry customers into the bakery?"

# embed the question
question_embedding = embedder.embed(question)

# function to calculate cosine similarity between two vectors
def cosine_similarity(a, b):
    return np.dot(a, b) / (np.linalg.norm(a) * np.linalg.norm(b))

# get the most similar sentence
most_similar_sentence = sentences[np.argmax([cosine_similarity(question_embedding, embedding) for embedding in
embeddings])]
print(f"Most similar sentence: {most_similar_sentence}")

# result will be "Most similar sentence: The scent of freshly baked bread wafts through the air, drawing hungry customers
into the bakery."
```

HYBRID SEARCH

1

Free-form text search

- Simple query syntax
- Lucene query syntax

2

Vector search

- Requires embeddings in index

3

Results are merged

- Best results

Generally available

Semantic ranker

SOTA re-ranking model

Highest performing retrieval mode

New pay-go pricing: Free 1k requests/month, \$1 per additional 1k

Multilingual capabilities

Includes extractive answers, captions and ranking

A LOOK
UNDER THE
HOOD

BUILDING AN
AZURE AI
SEARCH
INDEX

DEMO TIME



Welcome to Azure OpenAI service

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

Get started

Text generation



Chat playground

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

[Try it now](#)

Text generation



Completions playground

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

[Try it now](#)

Image generation



DALL-E playground

PREVIEW

Generate unique images by writing descriptions in natural language.

[Try it now](#)

Text generation



Bring your own data

PREVIEW

Connect and ground your data. Deploy to a web app or Power Virtual Agent bot.

[Try it now](#)

PREREQUISITES

- Azure subscription
- Access granted to use Azure OpenAI
- Azure OpenAI with a chat model deployed:
 - gpt-35-turbo or gpt-35-turbo-16k
 - gpt-4 or gpt-4-32k
 - gpt-4-turbo

The screenshot shows the Azure OpenAI Studio interface with the 'Deployments' section selected. The left sidebar includes links for Azure OpenAI, Playground, Chat, Completions, DALL-E (Preview), Management, Deployments (selected), Models, Data files, Quotas, and Content filters (Preview). The main content area displays a table of deployments:

Deployment name	Model name
gpt-35-turbo-new	gpt-35-turbo
embedding	text-embedding-ada-002
gpt-35-turbo	gpt-35-turbo
gpt-4	gpt-4
gpt-4-32k	gpt-4-32k

[Deploy to](#)[Import setup](#)[Export setup](#)[Show panels](#)

Chat playground

Chat session

[Clear chat](#)[View code](#)[Show ra](#)

At Innovatek, employees are not allo

[1 references >](#)

Deploy to a Power Virtual Agents bot

Create a bot to connect the model to Power Virtual Agents. [Learn more about Power Virtual Agents](#)

By clicking **Continue in Power Virtual Agents**, you agree to connect your Azure OpenAI subscription with your Power Virtual Agents tenant. You acknowledge that your data will be shared between these two online services and your data may be stored and processed outside of your PVA tenant's geographic region or compliance boundary. Review [preview terms](#) and documentation to learn more about features in preview.

[Learn more about your data in other regions](#)

 [Continue in Power Virtual Agents](#)[Cancel](#)

LET'S IMPLEMENT THE BAEKE.INFO BOT

DEMO TIME





TO WRAP UP

- Azure AI Search to provide relevant search results
- Azure OpenAI "add your data"
- Export from Azure OpenAI to a web app or CoPilot Studio
- Easily embed the chat app in Teams and other apps