

# Integrated Vectorization (IV)

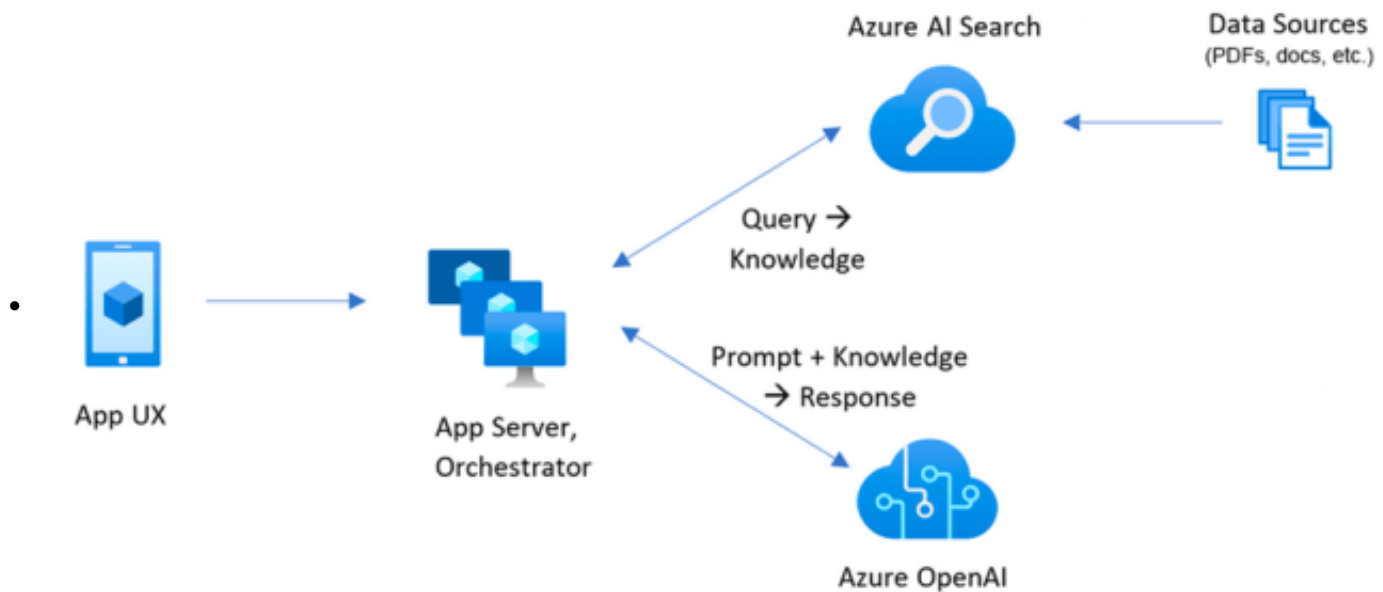
Friday, November 29, 2024 10:24 AM

## Info

- <https://singhrajeev.com/2024/03/18/getting-started-with-integrated-vectorization/>
- <https://techcommunity.microsoft.com/blog/azure-ai-services-blog/announcing-the-public-preview-of-integrated-vectorization-in-azure-ai-search/3960809>
- Automates most of the chunking and vectorization process
- We cannot use IV on existing index

## Example Chat App

- Consider a chat app at ABC company that uses HR documents, employee handbook etc to answer questions.
  - <https://github.com/Azure-Samples/azure-search-openai-demo/tree/main>



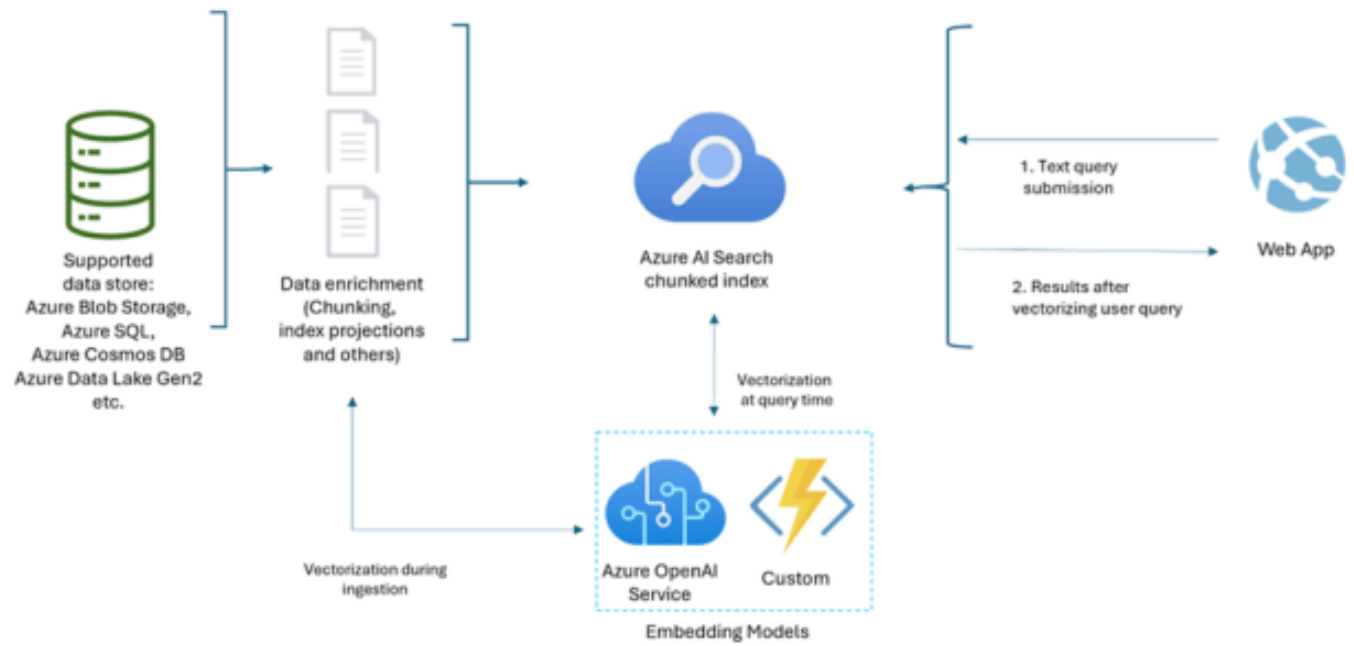
- To push data to AI Search we have to do manual indexing and chunking

## Manual Indexing & Chunking

- Create index if doesn't exist
- Upload PDFs to blob storage
- Split PDF to chunk of texts
- Upload chunks to AI Search (compute embeddings if using vectors)

## What is Integrated Vectorization

- Allows chunking and vectorization of data during ingestion thru built in pull indexers and vectorization thru vectorizers.
- If we have an deployed embedding model, IV allows us to automate chunking and vectorization during data ingestion from various azure sources like Blob, SQL, Cosmos etc



- Users need not maintain separate data chunking and vectorization pipeline, reducing overhead