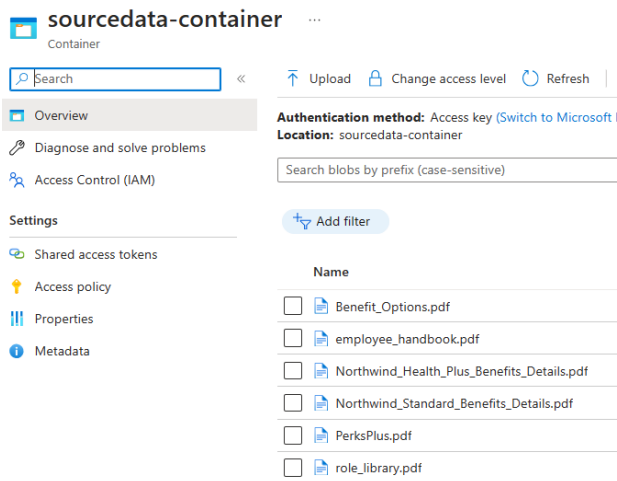# Azure AI Search - Create a Hybrid Search Solution (including vector search)

1. Prerequisites:

    a. Azure OpenAI service with embedding model deployed

    b. Azure storage account with a container

2. Upload sample data (PDF documents) to Azure storage container.

Sample data available on GitHub at https://github.com/amulchapla/GenAI-LLMapps-lifecycle-workshop/tree/main/AzureAISearch-VectorSearch

3. Create Azure AI Search service and create vector store

    a. Login to Azure Portal

    b. Create a new Azure AI Search service (if one doesn't exist already)

    c. Go to Azure AI Search service and click "Import and vectorize data". Follow the data import wizard.

        i. **Set up your data connection**: Connect to an external Azure Blob storage containing PDFs and other unstructured data files. You can leave Blob folder empty.

ii. **Vectorize your data with Azure OpenAI**: Connect to an Azure OpenAI service and select an embedding model for vector generation.
You need Azure OpenAI service with embedding model deployed for this step. If you don't have this then complete that task first.

iii. **Update the search index name (optional):** The wizard generates an index, indexer, data source, and skillset on your search service. You can view and independently manage these objects once they exist, but the names and many other properties are fixed for the lifetime of the object. To customize the name, change the object name prefix.

iv. **Wait for search index setup to complete.**

d. **Test Azure AI Search**: Go to the Azure AI Search service and click on Indexes and select the search index you created above.
  i. Enter a search term related to HR benefits and make sure you get search results.

vector-hrbenefits ...

💾 Save   ✕ Discard   ⟳ Refresh   ✂ Create Demo App   { } Edit JSON   🗑 Delete

Documents ⓘ	Total storage ⓘ	Vector index size ⓘ
410	12.14 MB	2.43 MB

Search explorer   Fields   CORS   Scoring profiles   Semantic configurations   Vector profiles

⚙ Query options   👁 View ∨

🔍 what is performance review   ✕   **Search**

Results

```
1   {
2     "@odata.context": "https://gptkb-thxdj6b6uiqtk.search.windows.net/indexes('vector-hrbenefits')/$metadata#dc
3     "@search.answers": [
4       {
5         "key": "1227e000194b_aHR0cHM6Ly9zdGF6dGXJ1YWlhbXU4NjExODk2NDI5ODAuYmxvYi5jb3J1LndpbmRvd33MubmV0L3NvdXJjZ
6         "text": "Performance reviews are a two-way dialogue between managers and employees. We    encourage all
7         "highlights": "Performance reviews are<em> a two-way dialogue between managers and employees.</em> We
8         "score": 0.99560546875
9       }
10    ],
11    "@search.nextPageParameters": {
12      "search": "what is performance review",
13      "queryType": "semantic",
14      "semanticConfiguration": "vector-hrbenefits-semantic-configuration",
15      "captions": "extractive",
16      "answers": "extractive|count-3",
17      "queryLanguage": "en-US",
18      "skip": 50,
19      "vectorQueries": [
20        {
21          "kind": "text",
22          "k": 5,
23          "oversampling": null,
24          "fields": "vector",
25          "vector": [],
```