Lab 7: Get statistics on open AI usage.

This document describes how to build a powerBI report to query the Azure Cosmos DB of the completions table issues of the previous lab.

Pre-requisites

Ensure that you have the following software installed on your system before proceeding with the lab:
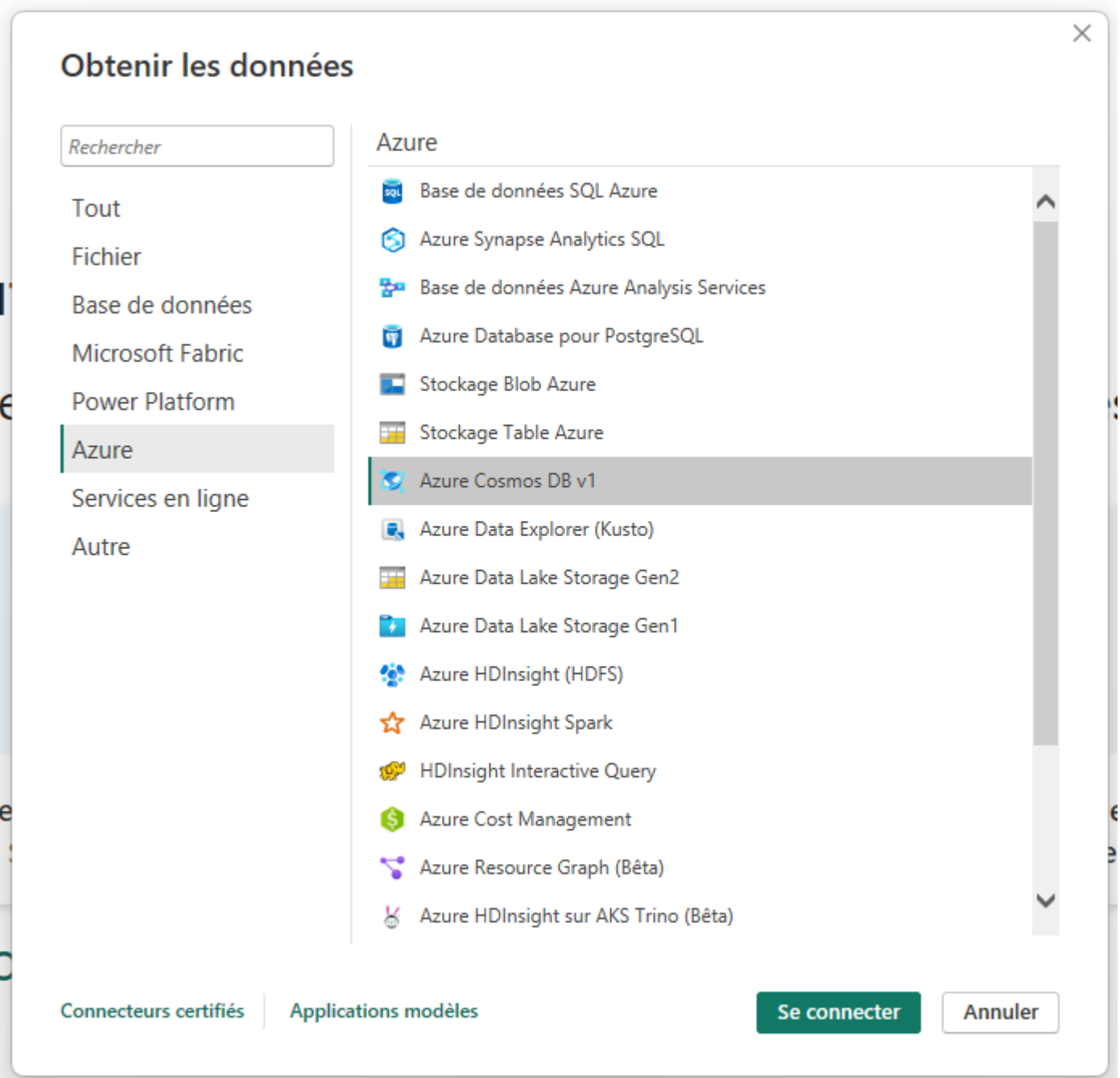
- PowerBI desktop on your laptop

Launch powerBI desktop on your laptop.

Follow these steps to create a simple report that will give you some statistics on the usage of open AI.

Launch PowerBI desktop and connect to your data.

- Open powerBI desktop
- Click on create new report
- On the report, go to "get data."
- Select the Azure type of data and take Azure cosmos dB V1 like below.

-
- Click on connect.
- Add the cosmos dB endpoint.

- To find the cosmos DB endpoint in the azure portal in your cosmos DB account go the Key parameters and you will see the endpoint and the key to connect with powerBI to the cosmos add your database and the name of your collections.
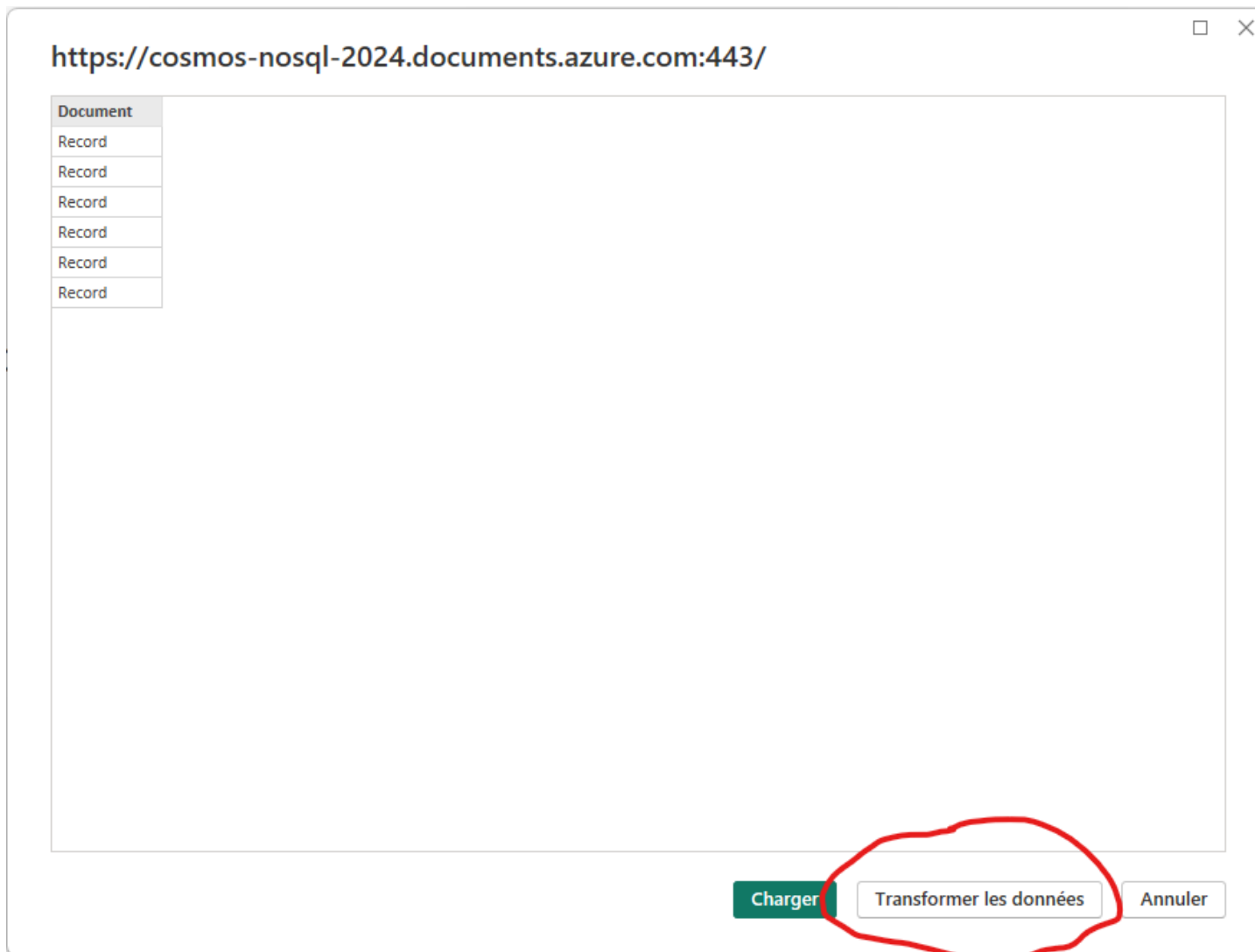
Azure Cosmos DB v1

URL (par exemple : https://contoso.documents.azure.com)

https://cosmos-nosql-2024.documents.azure.com:443/

Base de données (facultatif)
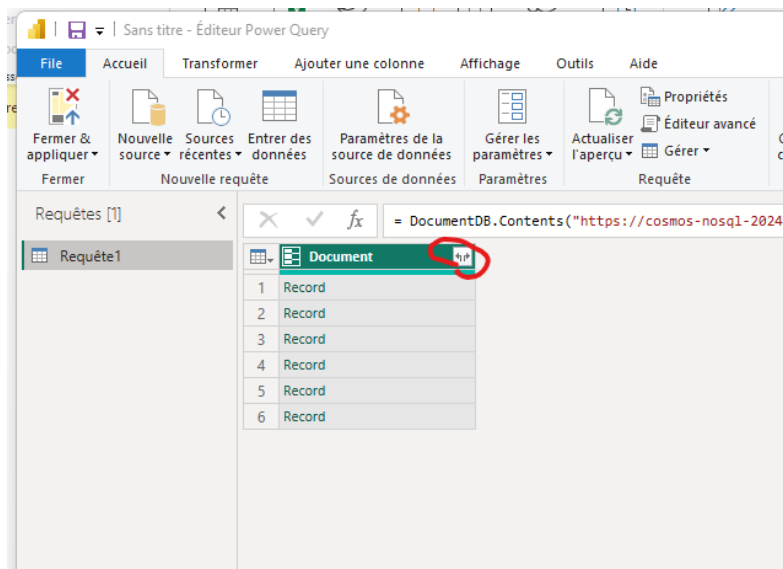
database_user01

Collection (facultatif)

conversations

▷ Instruction SQL (facultative)

OK   Annuler

- Click on OK
- Add the key to your cosmos dB account.
- The data should appear as below.

https://cosmos-nosql-2024.documents.azure.com:443/

Document
Record
Record
Record
Record
Record
Record

Charger   Transformer les données   Annuler

-
- Click and transform your data to format the data.
- Click on the extend to extend like below.

-
- Unselect some columns like below.
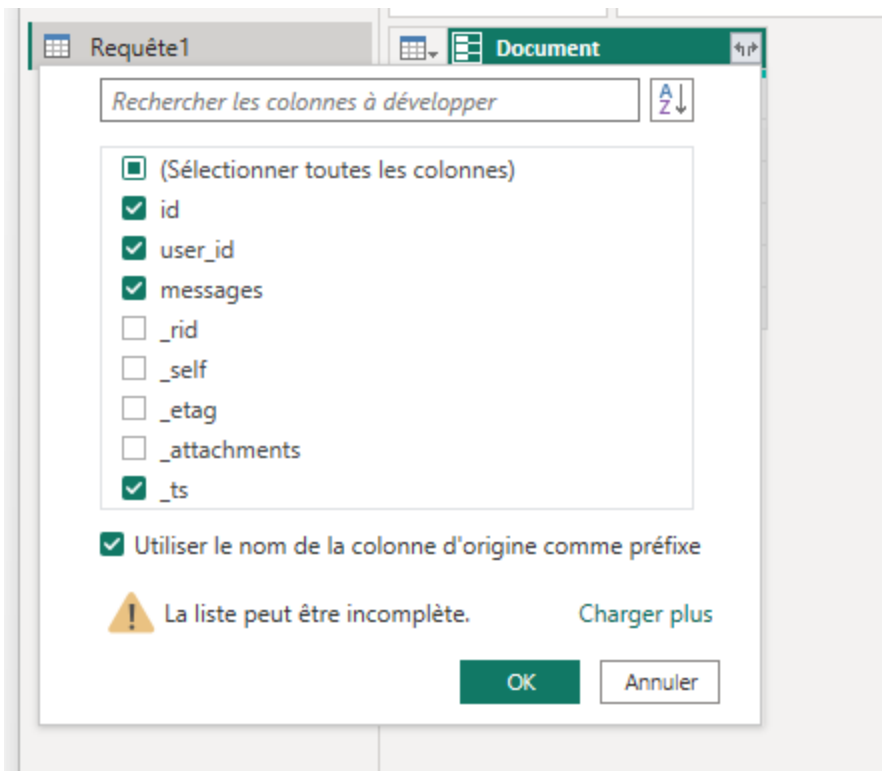
- Click on ok.
- Repeat the operation for Documents.messages and Documents.messages.data

`= Table.ExpandRecordColumn(Source, "Document", {"id", "user_id", "messages", "_ts"}, {"Document...`

|	ABC 123 Document.id	ABC 123 Document.user_id	ABC 123 Document.messages	ABC 123 Document._ts
1	20240110_115533	5b6c83e0-7d27-4c8b-944e-7d39aff98c19	List	1704884134
2	20240110_115539	5b6c83e0-7d27-4c8b-944e-7d39aff98c19	List	1704884140
3	20240110_170816	84f3be77-e96b-40a8-8732-ea437e2dcc31	List	1704902899
4	20240110_171935	ffccc19a-7562-47e0-8db4-b257cd8bb522	List	1704903577
5	20240110_171944	ffccc19a-7562-47e0-8db4-b257cd8bb522	List	1704903585
6	20240110_171951	ffccc19a-7562-47e0-8db4-b257cd8bb522	List	1704903594

`= Table.ExpandRecordColumn(#"Document.messages développé1", "Document.messages.data", {"content", "additional_kwargs", "type", "example"}, {"Document.messages.data.content", "Document.messages.data.additional_kwargs", "Document.messages.data.type",`

	Document.id	Document.user_id	Document.messages.type	Document.messages.data.content	Document.messages.data.additional_kwargs	Document.messages.data.type	Document.messages.data.example	Document._ts
1	20240110_115533	5b6c83e0-7d27-4c8b-944e-7d39aff98c19	human	Can you list all types of bikes?	Record	human	FALSE	1704884134
2	20240110_115533	5b6c83e0-7d27-4c8b-944e-7d39aff98c19	ai	There are many types of bikes, including road bikes, mountain bikes, h...	Record	ai	FALSE	1704884134
3	20240110_115539	5b6c83e0-7d27-4c8b-944e-7d39aff98c19	human	Can you provide more information on mountain bikes?	Record	human	FALSE	1704884140
4	20240110_115539	5b6c83e0-7d27-4c8b-944e-7d39aff98c19	ai	Sure! Mountain bikes are designed for off-road cycling and are typicall...	Record	ai	FALSE	1704884140
5	20240110_170816	84f3be77-e96b-40a8-8732-ea437e2dcc31	human	Can you provide more details on the Mountain-100?	Record	human	FALSE	1704902899
6	20240110_170816	84f3be77-e96b-40a8-8732-ea437e2dcc31	ai	The Mountain-100 is a mountain bike available in silver and black colo...	Record	ai	FALSE	1704902899
7	20240110_171935	ffccc19a-7562-47e0-8db4-b257cd8bb522	human	Can you list all types of bikes?	Record	human	FALSE	1704903577
8	20240110_171935	ffccc19a-7562-47e0-8db4-b257cd8bb522	ai	There are many types of bikes, including road bikes, mountain bikes, h...	Record	ai	FALSE	1704903577
9	20240110_171944	ffccc19a-7562-47e0-8db4-b257cd8bb522	human	Can you provide more information on mountain bikes?	Record	human	FALSE	1704903585
10	20240110_171944	ffccc19a-7562-47e0-8db4-b257cd8bb522	ai	Mountain bikes are designed for off-road cycling and are typically char...	Record	ai	FALSE	1704903585
11	20240110_171951	ffccc19a-7562-47e0-8db4-b257cd8bb522	human	Can you provide more details on the Mountain-100?	Record	human	FALSE	1704903594
12	20240110_171951	ffccc19a-7562-47e0-8db4-b257cd8bb522	ai	The Mountain-100 is a mountain bike available in silver and black colo...	Record	ai	FALSE	1704903594

- Click on the closet and apply.
- The data will be load and you can now build your report.

In visual do a report using the three following visual
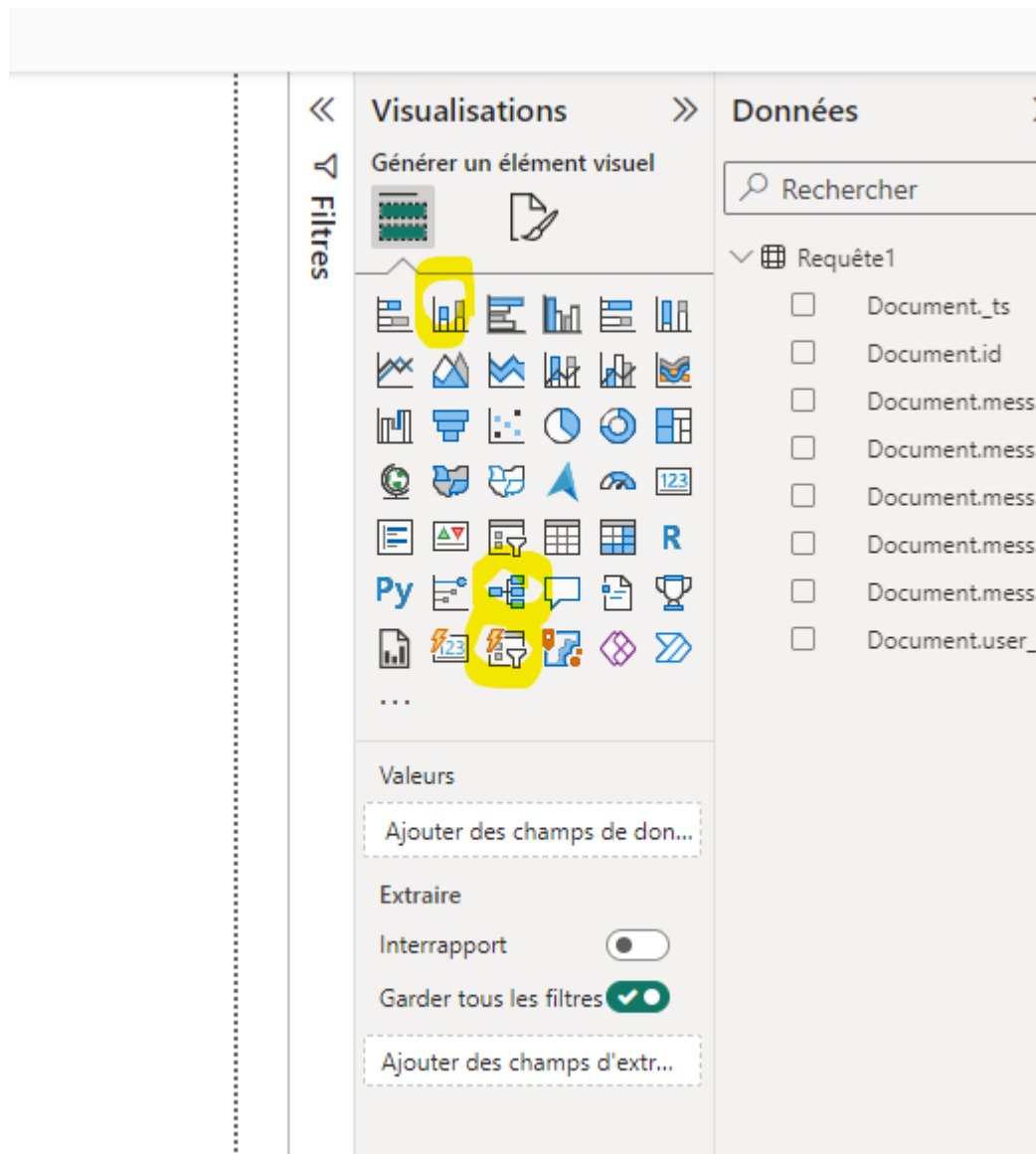
To obtain the following report
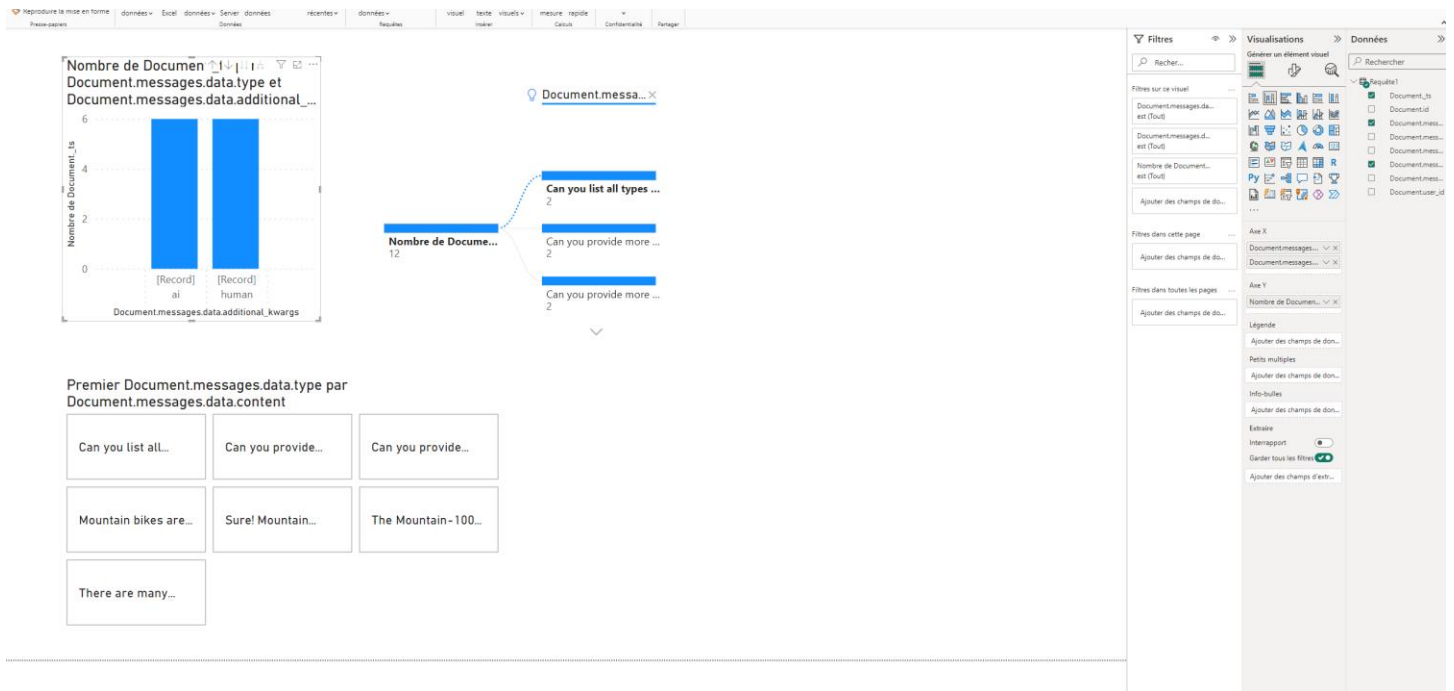
You can play with other visuals and analyze the data on how open AI is use with your data.

Monitor Azure Cosmos DB for NoSQL

You can monitor Azure Cosmos DB for NoSQL to optimize costs by:

- Using the Azure portal, Azure Monitor, or Azure Cost Management to view and analyze your usage and spending.
- Setting up alerts to notify you when your spending exceeds a certain threshold.
- Using the Azure Cosmos DB capacity planner to estimate your throughput and storage needs, and adjust your provisioned throughput accordingly.
- Using the Azure Cosmos DB reserved capacity to save money on your provisioned throughput by pre-purchasing it for a period of one or three years.
- Regularly reviewing and optimizing your indexing policy to reduce the storage and RU consumption of your queries.

In particular under cost management you can see

Access control (IAM)

Cost Management

Monitoring

Diagnostic settings

Azure Cosmos DB's cost is calculated based on storage, throughput and additional settings such as replication. Manage the cost of your Azure Cosmos DB account by configuring your account's total throughput limit.

Current account throughput

Database	Collection	Throughput mode	Throughput (RU/s)
adventureworks Total throughput: 400 RU/s			
database-v2 Total throughput: 400 RU/s			
database-v3 Total throughput: 800 RU/s			
VectorSearchTutorial Total throughput: 400 RU/s			

Number of regions: 1

Total throughput: 2000 RU/s

Total throughput limit setting

ℹ The account total throughput limit cannot be lowered below the total throughput currently provisioned across the account.

◯ Limit the account's total provisioned throughput to the amount included in the free tier discount (1000 RU/s), You won't incur any charges for provisioned throughput

◯ Allow the account's total throughput to be provisioned up to a custom amount

⦿ No limit, allow the account's total throughput to be provisioned to any amount

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Time Range

Last 4 hours ⌄

Database ⓘ

⌄

Overview   Throughput   Requests   Storage   Availability   Latency   System   Management Operations

Total Requests

Data & Index Usage

Throttled Requests (429s)

Normalized RU Consumption (m