

```
C:\Users\syedh\.virtualenvs\pennsieve-rag-uyDMxVgC\Scripts\python.exe C:\Users\syedh\Desktop\Neo4j\pennsieve-rag\app\main.py
```

Milvus container is not currently running -----

time="2024-08-03T17:20:33-04:00" level=warning msg="C:\\Users\\syedh\\Desktop\\Neo4j\\pennsieve-rag\\docker-compose.yml: `version` is obsolete"

Network milvus Creating

Network milvus Created

Container milvus-minio Creating

Container milvus-etcd Creating

Container milvus-etcd Created

Container milvus-minio Created

Container milvus-standalone Creating

Container milvus-standalone Created

Container milvus-minio Starting

Container milvus-etcd Starting

Container milvus-etcd Started

Container milvus-minio Started

Container milvus-standalone Starting

Container milvus-standalone Started

Milvus container started successfully ✓✓

Collection does not exist. Creating collection 'default' and filling Milvus with random paths and descriptions...

Generating random paths and formatting them...

\$\$\$\$\$\$\$\$Time taken to generate 10 random paths and format them: 0.44 seconds

Generating descriptions for random paths using OpenAI API...

\$\$\$\$\$\$\$\$Time taken to generate descriptions for random paths: 12.33 seconds

Data successfully written to data.txt ☐☐

Setting up Milvus connection...

☐☐Collection default created.

Number of entities in collection before insert: 0

Inserting new data into collection...

Insertion Successful ☐☐: Insert result: (insert count: 10, delete count: 0, upsert count: 0, timestamp: 451600727870275586, success count: 10, err count: 0, cost: 0)

Data flushed to disk☐☐

Number of entities in collection after insert: 10

Setup complete☐☐☐

\$\$\$\$\$\$\$\$Time taken to create and fill Milvus collection: 25.86 seconds

Total time taken to

1. generate 10 random paths +

2. format the random paths into cypher queries +

3. generate their descriptions using LLM +

4. Connect to Milvus, create embeddings and store the data in Milvus = : {25.86} seconds

Generating embedding for the user query...

Collection established with Milvus collection named 'default'.

Index doesn't exist, creating index...

Index created on the 'embedding' field in 'default' collection.

Loading the collection into memory for search...

Searching for similar vectors to user query in the 'default' collection...

Success ☐☐: Similar vectors are following:

Hit 1:

```

Cypher Path: (:Pennsieve)-[:DATASET]->(:Dataset {name: 'Test Dataset CNT'})-[:
FILES]->(:File {name: 'test.edf'})-[:DATA]->(:Data {children: 3.0, type: 'Object
'})-[:_physicalSignals]->(:Data {children: 12.0, type: 'Array'})-[:INDEX]->(:Data
{children: 600.0, type: 'Array'})-[:INDEX]->(:Data {children: 200.0, type: '
Object'})-[:`3`]->(:Data {value: -99.96185302734375})

```

Distance: 0.37973061203956604

Hit 2:

```

Cypher Path: (:Pennsieve)-[:DATASET]->(:Dataset {name: 'Test Dataset CNT'})-[:
FILES]->(:File {name: 'test.edf'})-[:DATA]->(:Data {children: 3.0, type: 'Object
'})-[:_header]->(:Data {children: 10.0, type: 'Object'})-[:signalInfo]->(:Data {
children: 12.0, type: 'Array'})-[:INDEX]->(:Data {children: 10.0, type: 'Object
'})-[:reserved]->(:Data {value: ''})

```

Distance: 0.34211158752441406

Hit 3:

```

Cypher Path: (:Pennsieve)-[:DATASET]->(:Dataset {name: 'Test Dataset CNT'})-[:
FILES]->(:File {name: 'test.edf'})-[:DATA]->(:Data {children: 3.0, type: 'Object
'})-[:_rawSignals]->(:Data {children: 12.0, type: 'Array'})-[:INDEX]->(:Data {
children: 600.0, type: 'Array'})-[:INDEX]->(:Data {children: 200.0, type: 'Object
'})-[:`1`]->(:Data {value: -1668.0})

```

Distance: 0.3322310447692871

Collection released from memory.

***Time taken to conduct vector similarity search in vector DB: 34.97 seconds

> Entering new GraphCypherQACchain chain...

Generated Cypher:

```

MATCH (:Pennsieve)-[:DATASET]->(:Dataset {name: 'Test Dataset CNT'})-[:FILES
]->()-[:DATA]->()-[:contributors]->()-[:INDEX]->(c)-[:last_name]->(l)
RETURN 'Test Dataset CNT' AS dataset_name, l.value AS last_name

```

Full Context:

```

[{'dataset_name': 'Test Dataset CNT', 'last_name': 'Wagenaar'}, {'dataset_name
': 'Test Dataset CNT', 'last_name': 'Wagenaar'}]

```

> Finished chain.

```

{
  "query": "What are the last names of contributors in dataset named Test Dataset
CNT?",
  "result": "Wagenaar",
  "intermediate_steps": [
    {
      "query": "\nMATCH (:Pennsieve)-[:DATASET]->(:Dataset {name: 'Test Dataset
CNT'})-[:FILES]->()-[:DATA]->()-[:contributors]->()-[:INDEX]->(c)-[:last_name]->(
l)\nRETURN 'Test Dataset CNT' AS dataset_name, l.value AS last_name\n"
    },
    {
      "context": [
        {
          "dataset_name": "Test Dataset CNT",
          "last_name": "Wagenaar"
        },
        {
          "dataset_name": "Test Dataset CNT",
          "last_name": "Wagenaar"
        }
      ]
    }
  ]
}

```

File - main

```
}  
]  
}
```

Final LLM answer: Wagenaar

*****Time taken to execute CypherQAChain: 41.710 seconds

Process finished with exit code 0