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MileStone-4

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EXPLORER

...

✓ MILESTONE-4

> .venv

📄 security_incidents.txt

📄 soc_rag_app.py

📄 soc_rag_app.py

📄 security_incidents.txt

439

print("\nPlease try again or check your query format.")

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

Python

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(.venv)

User@DESKTOP-0FU31RQ MINGW64 ~/MileStone-4

\$ C:/Users/User/MileStone-4/.venv/Scripts/python.exe c:/Users/User/MileStone-4/soc_rag_app.py

User@DESKTOP-0FU31RQ MINGW64 ~/MileStone-4

\$ C:/Users/User/MileStone-4/.venv/Scripts/python.exe c:/Users/User/MileStone-4/soc_rag_app.py

=== STEP 1: LOAD DATA ===

Loaded 1 document(s)

Sample content (first 200 chars): Incident #001 | User=johns | Alert=Multiple failed SSH logins | SourceIP=10.1.1.9 | Host=SRV-LNX-01 | OS=Ubuntu 20 | MITRE=T1110 | Severity=High | Resolution=Blocked source IP; Reset password; Enabled

=== STEP 2: CHUNKING ===

Created 20 chunks

Sample chunk: Incident #001 | User=johns | Alert=Multiple failed SSH logins | SourceIP=10.1.1.9 | Host=SRV-LNX-01 | OS=Ubuntu 20 | MITRE=T1110 | Severity=High | Res

=== STEP 3: EMBEDDINGS + INDEX ===

c:\Users\User\MileStone-4\soc_rag_app.py:73: LangChainDeprecationWarning: The class `HuggingFaceEmbeddings` was deprecated in LangChain 0.2.2 and will be removed in 1.0. An updated version of the class exists in the `langchain-huggingface` package and should be used instead. To use it run `pip install -U `langchain-huggingface` and import as `from `langchain_huggingface import HuggingFaceEmbeddings``.

emb = HuggingFaceEmbeddings(model_name="sentence-transformers/all-MiniLM-L6-v2")

FAISS vectorstore created with vector retriever (k=4)

=== BONUS: HYBRID RETRIEVAL ===

Hybrid retriever ready.

=== STEP 4: RAG CHAIN ===

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.venv

security_incidents.txt

soc_rag_app.py

soc_rag_app.py

security_incidents.txt

soc_rag_app.py > ...

439 print("\nPlease try again or check your query format.")

PROBLEMSOUTPUTDEBUG CONSOLETERMINALPORTS

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=== STEP 4: RAG CHAIN ===

RAG chain constructed.

=== BONUS: TOOL ===

=== STEP 5: MEMORY ===

Memory wrapper ready.

=== STEP 7: CONSOLE LOOP ===

Example queries:

analyst42 Show me all SSH brute force incidents

analyst42 What happened with user johns?

analyst42 Find Critical severity incidents

analyst42 Show me ransomware attacks

analyst42 What MITRE techniques are most common?

analyst42 Tell me about PowerShell attacks

Enter: <analyst_id> <query> (or q): analyst42 Show me all SSH brute force incidents

Processing your query...

Assistant Response for analyst42:

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EXPLORER

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▼ MILESTONE-4

> .venv

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📄 soc_rag_app.py

> OUTLINE

> TIMELINE

soc_rag_app.py X

security_incidents.txt

soc_rag_app.py > ...

439 | print("\nPlease try again or check your query format.")

PROBLEMS | OUTPUT | DEBUG CONSOLE | TERMINAL | PORTS

⏱ Processing your query...

=====

🔍 Assistant Response for analyst42:

=====

Based on the provided context, there are two incidents that involve SSH brute-force authentication attempts:

1. Incident #007 - User=stevet | Alert=SSH brute-force authentication attempts | SourceIP=10.2.4.9 | Host=SRV-LNX-12 | OS=Ubuntu 22 | MITRE=T1110.001 | Severity=High | Resolution=Blocked IP; Enabled fail2ban; Reset credentials.

2. Incident #037 - User=stevet | Alert=SSH login from blacklisted country | SourceIP=192.168.55.20 | Host=SRV-LNX-12 | OS=Ubuntu 22 | MITRE=T1078 (which includes T1110 as a sub-technique) | Severity=High | Resolution=Blocked IP; Reset password.

In both incidents, the user involved is 'stevet'. The MITRE ATT&CK techniques associated with these incidents are T1110 (Brute Force) and T1078 (Initial Access). Both incidents have a high severity level, and the resolutions included blocking the IP addresses and resetting passwords.

=====

🎯 Threat Score Analysis:

• Score: 11/100

• Level: MEDIUM

• Risk Factors:

- PowerShell activity detected (+6)

- Brute-force indicator (+5)

📄 Structured JSON Output:

{

"response": "Based on the provided context, there are two incidents that involve SSH brute-force authentication attempt

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security_incidents.txt

soc_rag_app.py > ...

439 print("\nPlease try again on check your query format.")

PROBLEMSOUTPUTDEBUG CONSOLETERMINALPORTS

Structured JSON Output:

{
 "response": " Based on the provided context, there are two incidents that involve SSH brute-force authentication attempts:
 1. Incident #007 - User=stevet | Alert=SSH brute-force authentication attempts | SourceIP=10.2.4.9 | Host=SRV-LNX-12 | OS=Ubuntu 22 | MITRE=T1110.001 | Severity=High | Resolution=Blocked IP; Enabled fail2ban; Reset credentials.
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 In both incidents, the user involved is 'stevet'. The MITRE ATT&CK techniques associated with these incidents are T1110 (Brute Force) and T1078 (Initial Access). Both incidents have a high severity level, and the resolutions included blocking the IP addresses and resetting passwords.",
 "entities": {},
 "threat_analysis": {
 "score": 11,
 "level": "MEDIUM",
 "risk_factors": [
 "PowerShell activity detected (+6)",
 "Brute-force indicator (+5)"
]
 },
 "metadata": {
 "incident_count": 2,
 "has_resolution": true,
 "mitre_techniques": []
 }
}

Session Info: 2 messages in history for analyst42

Enter: <analyst_id> <query> (or q):

Python

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