

**First Output:**

```
Users\User\Documents\RAG\Final_Rags>python milestone.py
LOAD DATA ===
cuments.

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=Bl
e IP; Reset password; Enabled MFA.
02 | User=markp | Alert=Suspicious PowerShell encoded command detected | Host=WKS-2

CHUNKING ===
s: 24

EMBEDDINGS + INDEX ===

HYBRID RETRIEVAL ===
iever ready.

RAG CHAIN ===
onstructed.

TOOL ===
t_enrich added successfully

MEMORY ===
per ready.

CONSOLE LOOP ===
st ID (or 'exit'): T1053
/query: Malicious files on desktop
JSON-RESPONSE ---
id": "T1053",
"Malicious files on desktop",
": [
[
168.55.20"
```

**Entities :**

```
query : Malicious files on desktop
"entities": {
    "ips": [
        "192.168.55.20"
    ],
    "hostnames": [
        "WKS-81",
        "SRV-DB03",
        "WKS-64",
        ";",
        "WKS-11",
        "FIN12",
        ";",
        "WEB-03",
        "SRV-DB03",
        "WKS-55",
        "SRV-LNX-12",
        "SRV-APP2"
    ],
    "os": [
        "Windows",
        "Windows",
        "Windows",
        "Windows",
        "Debian",
        "Windows",
        "Ubuntu"
    ],
    "mitre": [
        "T1059",
        "T1078",
        "T1090",
        "T1091",
        "T1486",
        "T1059",
        "T1005",
        "T1021",
        "T1078",
        "T1041"
    ],
    "severity": [
        "High"
    ]
}
```

**Second Query -**

```
Enter analyst ID (or 'exit'): T1053
Enter alert/query: brute force attacks
---BONUS : JSON-RESPONSE ---
{
    "analyst_id": "T1053",
    "query": "brute force attacks",
    "entities": [
        "ips": [
            "10.2.4.9",
            "192.168.55.20",
            "10.22.3.9"
        ],
        "hostnames": [
            "SRV-LNX-12",
            "SRV-FS01",
            "WEB-20",
            "WKS-72",
            "WKS-22",
            "WKS-81",
            "SRV-DB03",
            "SRV-LNX-12",
            "SRV-APP2",
            "WKS-77",
            "LAB-07",
            "WKS-98",
            "SRV-DB01"
        ],
        "os": [
            "Ubuntu",
            "Windows",
            "Debian",
            "Windows",
            "Windows",
            "Windows",
            "Ubuntu",
            "Windows",
            "Ubuntu",
            "Windows",
            "CentOS"
        ],
    ]
}
```

```
        ],
      "severity": [
        "High",
        "High",
        "High",
        "Medium",
        "Medium",
        "High",
        "Medium",
        "High",
        "Critical",
        "High",
        "Critical",
        "High",
        "High"
      ],
      "threat_score": 66,
      "response": " Based on the provided context, there have been multiple instances of brute-force attacks detected across various hosts in your #007, #029, and #037 for SSH, and #034 for SMB). In these cases, the resolution involved blocking the IP addresses from which the attacks originated via 2ban or SMB throttling, resetting credentials, and conducting IOC scans.\n\nThreat indicators for brute-force attacks often include:\n1. Multiple authentication attempts within a short period of time.\n2. Unusual connections from IP addresses with known malicious activity.\n3. Attempts to access resources or services that typically require strong authentication.\n4. Login attempts using common or weak passwords.\n5. Rapid login attempts from multiple IP addresses, indicating automated attacks.\n\nTo mitigate the risk of brute-force attacks, it is recommended to:\n1. Implement strong password policies and complexity requirements.\n2. Limit the number of failed authentication attempts before locking an account.\n3. Monitor network traffic for unusual patterns related to authentication attempts.\n4. Use multi-factor authentication (MFA) where possible to add an additional layer of security.\n5. Regularly update and patch vulnerable services and software.\n6. Implement access controls and restrict access to sensitive resources or services only to those who need them.\n7. Review system logs for signs of brute-force attacks.\n8. Educate users about the risks of using weak passwords and sharing credentials.\n\nIn the event of an incident, if the analyst suspects a brute-force attack, it would be advisable to:\n1. Block the IP address from which the attack originated via 2ban or SMB throttling to prevent further attempts.\n2. Reset credentials for the affected user account(s).\n3. Review system logs for any significant authentication attempts.\n4. Investigate the source of the attack, if possible, by conducting an IOC scan or analyzing network traffic.\n5. Notify the response team and relevant stakeholders about the incident.\n6. Implement additional security measures to prevent future brute-force attacks, such as MFA or strengthening password policies."
    }
  -----
Tools, Entities, Score, Memory, Json Response Implemented
Enter analyst ID (or 'exit'): exit
(.rags) C:\Users\User\Documents\RAG\Final_Rags>
```