```
—(kali@kali)-[~/Desktop/project/project_SOC]
—$ bash combined.sh
[!] This script must be run as root. Please switch to root and try again.
—(kali@kali)-[~/Desktop/project/project_SOC]
```

```
(root® kali)-[/home/kali/Desktop/project/project_SOC]
   bash combined.sh
          Welcome to the SOC Monitoring
            and Attack Simulation Tool
          A Comprehensive Security Operations
               Center (SOC) Project
    Monitor, Analyze, and Simulate Cyber Threats
             to Strengthen Your Network
    Author: Yechiel Said
    Version: 1.0
     Developed for: Advanced SOC Projects
                    Main Menu
1. main_attacks - Access the Attack Simulation Menu
2. main_monitor - Access the Monitoring Menu
3. Exit - Exit the Program
```

Enter your choice:

```
Enter your choice: 1
Redirecting to Attack Simulation Menu...
```

Multi-Attack Simulation Script

```
[+] Your machine's IP: 192.168.189.166
```

Installing Dependencies

```
[+] Your machine's IP: 192.168.189.166
               Installing Dependencies
[+] nmap is already installed.
[+] hydra is already installed.
[+] masscan is already installed.
[+] msfconsole is already installed.
[+] hping3 is already installed.
[+] arpspoof is already installed.
[+] sslstrip is already installed.
[+] tor is already installed.
[+] macchanger is already installed.
[+] curl is already installed.
[#] Installing geoip-bin ...
[+] geoip-bin installed.
[*] All dependencies are installed.
```

Attack Options

- 1 DDoS Attack
- 2 DNS Amplification
- 3 MITM Attack
- 4 Discover Network IPs
- 99 Exit
- [!] Choose an option:

Enter your choice:

Attack Options

- 1 DDoS Attack
- 2 DNS Amplification
- 3 MITM Attack
- 4 Discover Network IPs
- 99 Exit
- [!] Choose an option:

Enter your choice: 1

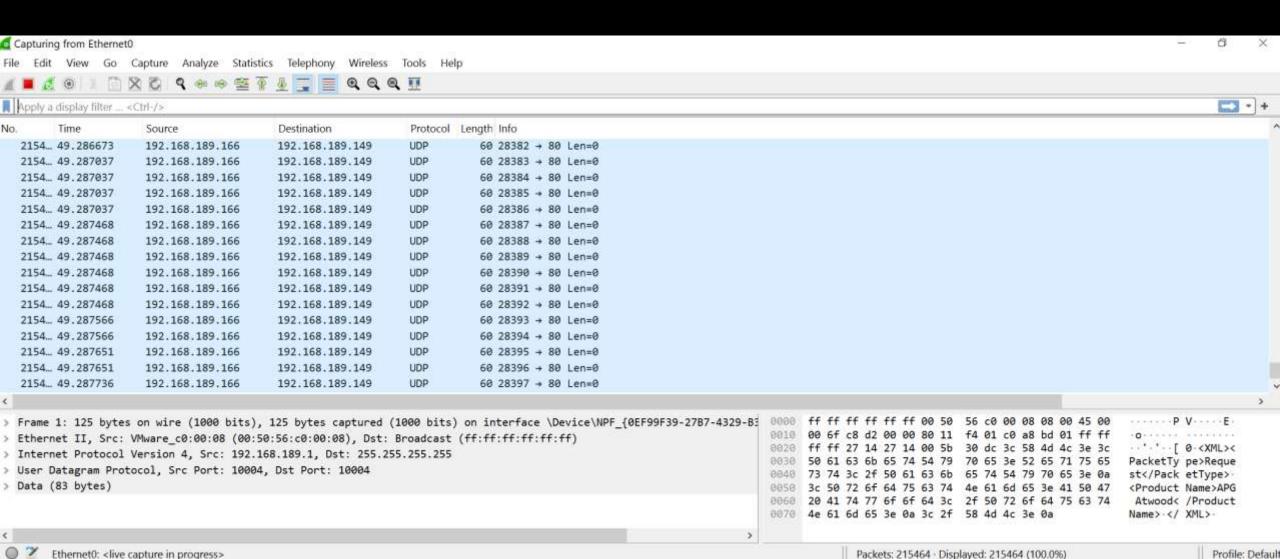
DDoS Attack

Enter target IP for DDoS:

DDoS Attack

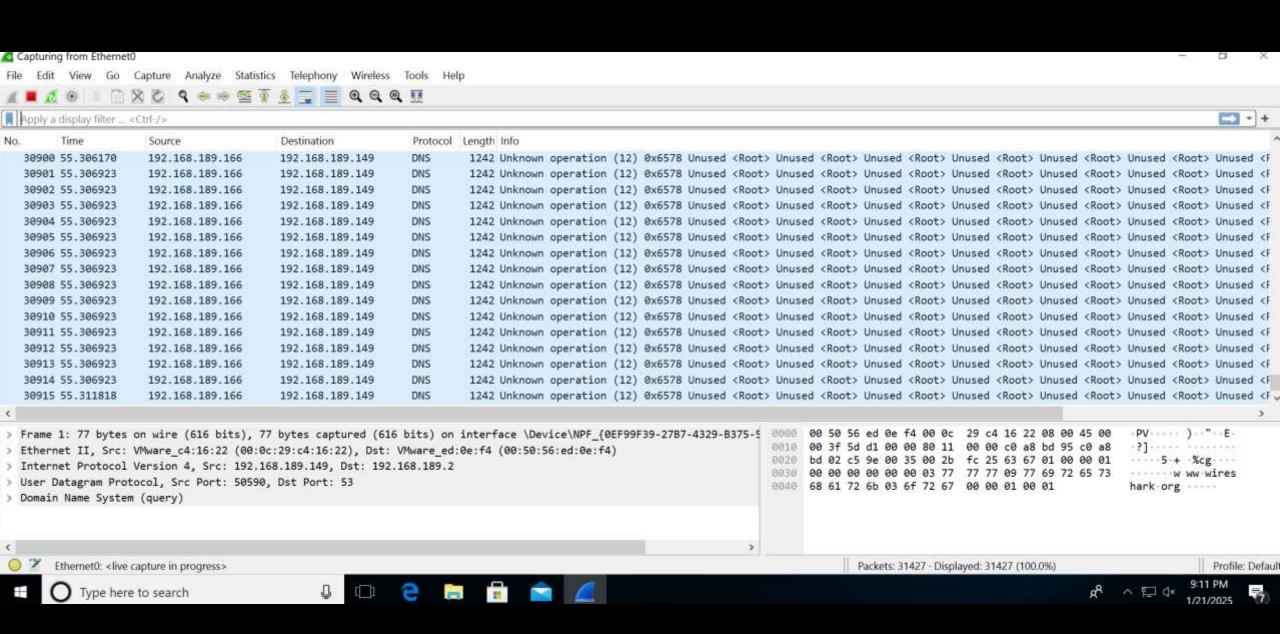
Enter target IP for DDoS: 192.168.189.149 [+] Attack logged: DDoS on 192.168.189.149

hping in flood mode, no replies will be shown



```
1 - DDoS Attack
 2 - DNS Amplification
 3 - MITM Attack
 4 - Discover Network IPs
99 - Exit
[!] Choose an option:
Enter your choice: 2
            DNS Amplification Attack
Enter target DNS server IP: 192.168.189.149
[+] Attack logged: DNS Amplification on 192.168.189.149
[main] memlockall(): No such file or directory
```

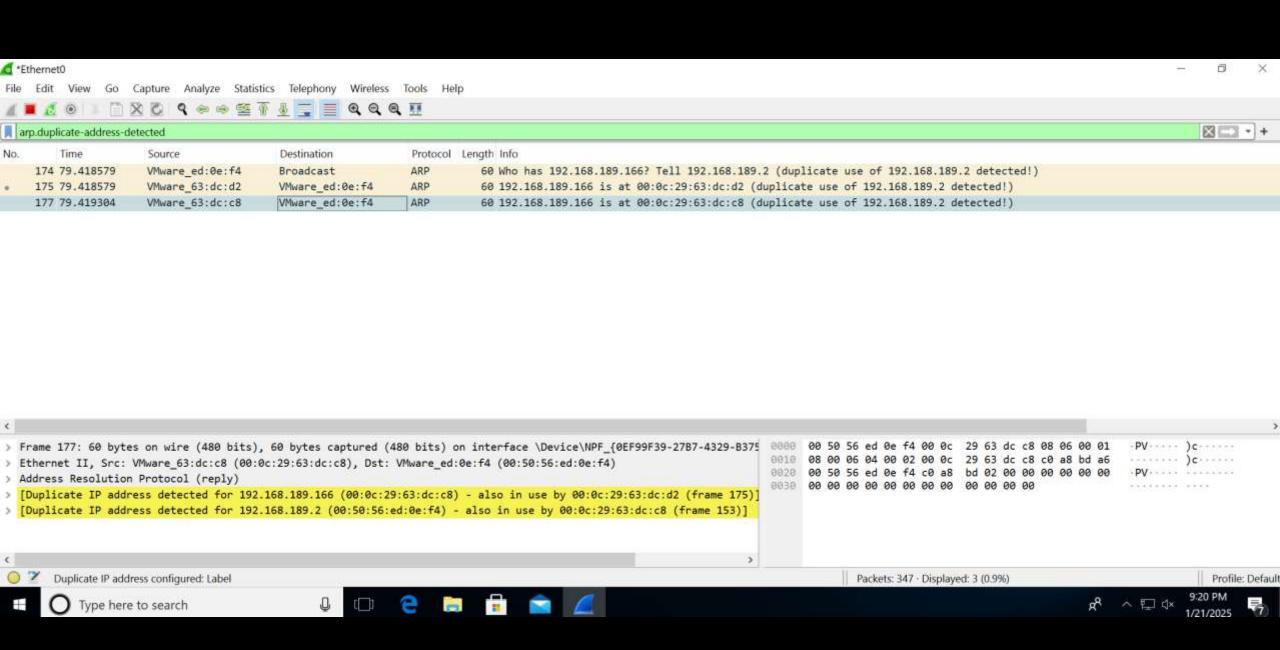
[main] memlockall(): No such file or directory
Varning: can't disable memory paging!
ping in flood mode, no replies will be shown



MITM Attack

```
Enter victim IP: 192.168.189.149
Enter gateway IP: 192.168.189.2
[+] Attack logged: MITM on 192.168.189.149
```

[+] MITM attack in progress. Capturing traffic ...
0:c:29:63:dc:c8 0:c:29:c4:16:22 0806 42: arp reply 192.168.189.2 is-at 0:c:29:63:dc:c8
tcpdump: listening on eth0, link-type EN10MB (Ethernet), snapshot length 262144 bytes
0:c:29:63:dc:c8 0:c:29:c4:16:22 0806 42: arp reply 192.168.189.2 is-at 0:c:29:63:dc:c8



```
2 - DNS Amplification
 3 - MITM Attack
 4 - Discover Network IPs
99 - Exit
[!] Choose an option:
Enter your choice: 4
                Network Discovery D TOOLS (nmap hydra masscan ms
[*] Scanning the network for live IPs ...
[+] Found IPs on the network:
    - 192.168.189.1
    - 192.168.189.2
    - 192.168.189.149
    - 192.168.189.254
    - 192.168.189.145
    - 192.168.189.166
```

Main Menu

- 1. main_attacks Access the Attack Simulation Menu
- 2. main_monitor Access the Monitoring Menu
- 3. Exit Exit the Program

Enter your choice: 2 Redirecting to Monitoring Menu...

Main Menu

- 1. Display IP Addresses
- 2. Attack Monitoring
- 3. Exit

Enter your choice: 1

Displaying IP Addresses

Select the action for displaying IP addresses:

- 1. Display IP addresses from auth.log
- 2. Display IP addresses from the local network
- 3. Exit

Enter your choice:

Displaying IP Addresses

```
Select the action for displaying IP addresses:
1. Display IP addresses from auth.log
  Display IP addresses from the local network
3. Exit
Enter your choice: 1
192.168.1.100
192.168.1.101
192.168.1.102
192.168.1.103
192.168.1.104
192.168.1.105
192.168.1.106
192.168.1.107
```

192.168.1.108

Main Menu 1. Display IP Addresses 2. Attack Monitoring 3. Exit Enter your choice: 2 Attack Monitoring Menu 1. SSH Attack Monitoring 2. SMB Attack Monitoring FTP Attack Monitoring 4. HTTP Attack Monitoring System Events Monitoring Display All Possible Attacks with Descriptions 7. Choose a Target or Random IP 8. Exit

Enter your choice:

- 1. SSH Attack Monitoring
- 2. SMB Attack Monitoring
- 3. FTP Attack Monitoring
- 4. HTTP Attack Monitoring
- 5. System Events Monitoring
- 6. Display All Possible Attacks with Descriptions
- 7. Choose a Target or Random IP
- 8. Exit

Enter your choice: 6

List of Possible Attacks & Descriptions

- 1. SSH Login Attempts: Tracks accepted and failed login attempts for SSH.
- 2. SMB Login Events: Detects valid and invalid SMB session attempts.
- 3. FTP Login Events: Monitors FTP logins and errors.
- 4. HTTP Attacks: Identifies brute-force attacks and suspicious user agents.
- 5. System Events: Logs authentication failures and unauthorized access.

- 1. SSH Attack Monitoring
- 2. SMB Attack Monitoring
- 3. FTP Attack Monitoring
- 4. HTTP Attack Monitoring
- 5. System Events Monitoring
- 6. Display All Possible Attacks with Descriptions
- 7. Choose a Target or Random IP
- 8. Exit

Enter your choice: 1

Monitoring SSH login events

No activity for 30 seconds. Stopping SSH login events monitoring...

- 1. SSH Attack Monitoring
- 2. SMB Attack Monitoring
- 3. FTP Attack Monitoring
- 4. HTTP Attack Monitoring
- System Events Monitoring
- 6. Display All Possible Attacks with Descriptions
- 7. Choose a Target or Random IP
- 8. Exit

Enter your choice: 2

Monitoring SMB login events

[SMB login events Event] Jan 16 12:41:30 server smbd[23457]: session closed for user1 from 192.168.1.103 [SMB login events Event] [SMB login events Event] Jan 16 12:41:30 server smbd[23457]: session closed for user1 from 192.168.1.103

No activity for 30 seconds. Stopping SMB login events monitoring...

- SSH Attack Monitoring
- 2. SMB Attack Monitoring
- 3. FTP Attack Monitoring
- 4. HTTP Attack Monitoring
- 5. System Events Monitoring
- 6. Display All Possible Attacks with Descriptions
- 7. Choose a Target or Random IP
- 8. Exit

Enter your choice: 3

Monitoring FTP login events

[FTP login events Event] Jan 16 12:50:01 server ftpd[34567]: Failed login for user anonymous from 192.168.1.104 [FTP login events Event] [FTP login events Event] Jan 16 12:50:01 server ftpd[34567]: Failed login for user anonymous from 192.168.1.104 [FTP login events Event] Jan 16 12:52:15 server ftpd[34568]: Login successful for user admin from 192.168.1.105 [FTP login events Event] [FTP login events Event] Jan 16 12:52:15 server ftpd[34568]: Login successful for user admin from 192.168.1.105

No activity for 30 seconds. Stopping FTP login events monitoring...

- 1. SSH Attack Monitoring
- 2. SMB Attack Monitoring
- FTP Attack Monitoring
- 4. HTTP Attack Monitoring
- 5. System Events Monitoring
- 6. Display All Possible Attacks with Descriptions
- 7. Choose a Target or Random IP
- 8. Exit

Enter your choice: 4

Monitoring HTTP events

[HTTP events Event] Jan 16 13:00:42 server httpd[45678]: GET /admin HTTP/1.1 403 192.168.1.106 [HTTP events Event] [HTTP events Event] Jan 16 13:00:42 server httpd[45678]: GET /admin HTTP/1.1 403 192.168.1.106 [HTTP events Event] Jan 16 13:01:05 server httpd[45679]: User-Agent: suspicious-bot detected from 192.168.1.107

[HTTP events Event] [HTTP events Event] Jan 16 13:01:05 server httpd[45679]: User-Agent: suspicious-bot detected from 192.168.1.107

No activity for 30 seconds. Stopping HTTP events monitoring...

- 1. SSH Attack Monitoring
- 2. SMB Attack Monitoring
- 3. FTP Attack Monitoring
- 4. HTTP Attack Monitoring
- 5. System Events Monitoring
- 6. Display All Possible Attacks with Descriptions
- Choose a Target or Random IP
- 8. Exit

Enter your choice: 5

Monitoring System events

[SMB login events Event] Jan 16 12:41:30 server smbd[23457]: session closed for user1 from 192.168.1.103
[System events Event] [SMB login events Event] Jan 16 12:41:30 server smbd[23457]: session closed for user1 from 192.168.1.103
[FTP login events Event] Jan 16 12:50:01 server ftpd[34567]: Failed login for user anonymous from 192.168.1.104
[System events Event] [FTP login events Event] Jan 16 12:50:01 server ftpd[34567]: Failed login for user anonymous from 192.168.1.104
[FTP login events Event] Jan 16 12:52:15 server ftpd[34568]: Login successful for user admin from 192.168.1.105
[System events Event] [FTP login events Event] Jan 16 12:52:15 server ftpd[34568]: Login successful for user admin from 192.168.1.105
[HTTP events Event] Jan 16 13:00:42 server httpd[45678]: GET /admin HTTP/1.1 403 192.168.1.106
[System events Event] Jan 16 13:01:05 server httpd[45679]: User-Agent: suspicious-bot detected from 192.168.1.107

```
4. HTTP Attack Monitoring
5. System Events Monitoring
6. Display All Possible Attacks with Descriptions
7. Choose a Target or Random IP
8. Exit
Enter your choice: 7
                 Choose Target IP
Do you want to select from auth.log or local network? [auth/local]: auth
Available IPs:
192.168.1.100
192.168.1.101
192.168.1.102
192.168.1.103
192.168.1.104
192.168.1.105
192.168.1.106
192.168.1.107
192.168.1.108
Enter a target IP from the list or type 'random' to select a random IP:
```

3. FIP ALLACK MONILOTING

Choose Target IP

Do you want to select from auth.log or local network? [auth/local]: auth

```
Available IPs:

192.168.1.100

192.168.1.101

192.168.1.102

192.168.1.103

192.168.1.104

192.168.1.105

192.168.1.106

192.168.1.107

192.168.1.108
```

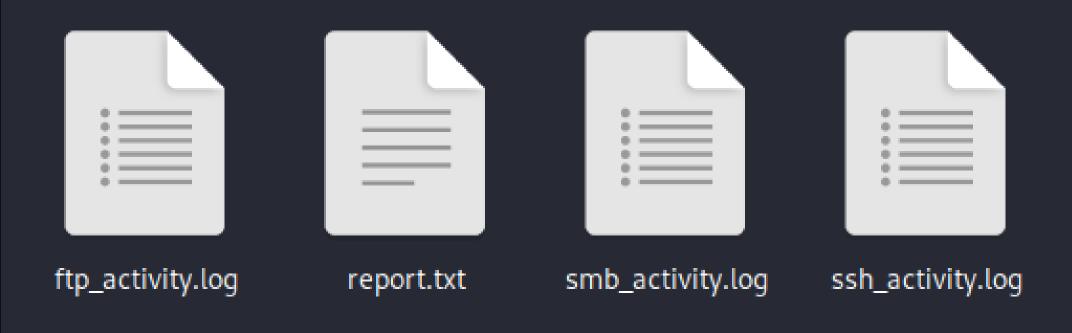
Enter a target IP from the list or type 'random' to select a random IP: 192.168.1.103 Selected IP: 192.168.1.103

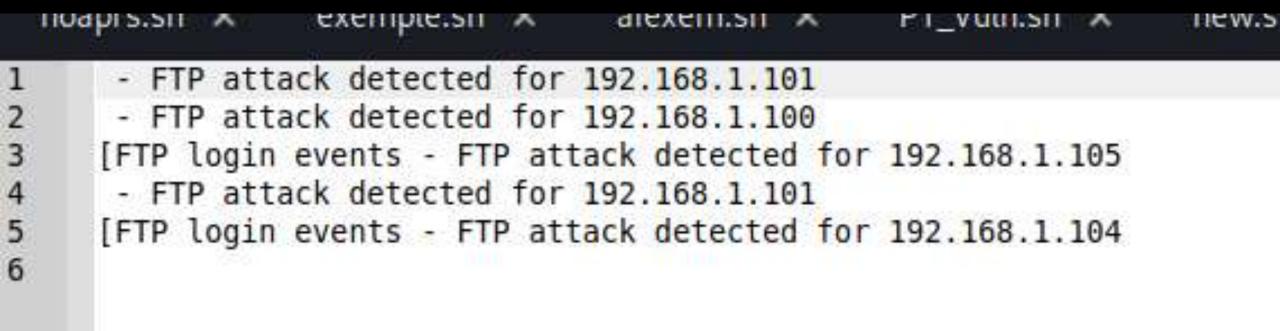
```
192.168.1.108
Randomly selected IP: 192.168.1.104
2025-01-18 14:53:46 - Attack detected for 192.168.1.104
2025-01-18 15:01:35 - Selected: Choose a Target or Random IP
2025-01-18 15:01:49 - SSH Attack - Target: 192.168.1.100 - Log Source: auth.log
2025-01-18 15:01:49 - SMB Attack - Target: 192.168.1.100 - Log Source: auth.log
2025-01-18 15:01:49 - FTP Attack - Target: 192.168.1.100 - Log Source: auth.log
2025-01-18 15:02:04 - Selected: Choose a Target or Random IP
2025-01-18 15:02:29 - Selected: SSH Attack Monitoring
2025-01-18 15:03:06 - Selected: SMB Attack Monitoring
2025-01-18 15:03:47 - Selected: FTP Attack Monitoring
2025-01-18 15:04:29 - Exiting program
2025-01-18 15:11:02 - Selected: HTTP Attack Monitoring
2025-01-18 15:11:40 - Selected: System Events Monitoring
2025-01-18 15:12:17 - Selected: Choose a Target or Random IP
2025-01-18 15:12:42 - SSH Attack - Target: 192.168.1.105 - Log Source: auth.log
2025-01-18 15:12:42 - SMB Attack - Target: 192.168.1.105 - Log Source: auth.log
2025-01-18 15:12:42 - FTP Attack - Target: 192.168.1.105 - Log Source: auth.log
2025-01-18 15:12:52 - Exiting program
2025-01-19 10:14:30 - Selected: Display All Possible Attacks with Descriptions
2025-01-19 10:14:53 - Selected: Choose a Target or Random IP
2025-01-19 10:15:05 - SSH Attack - Target: 192.168.1.101 - Log Source: auth.log
2025-01-19 10:15:05 - SMB Attack - Target: 192.168.1.101 - Log Source: auth.log
2025-01-19 10:15:05 - FTP Attack - Target: 192.168.1.101 - Log Source: auth.log
2025-01-19 10:16:04 - Exiting program
```

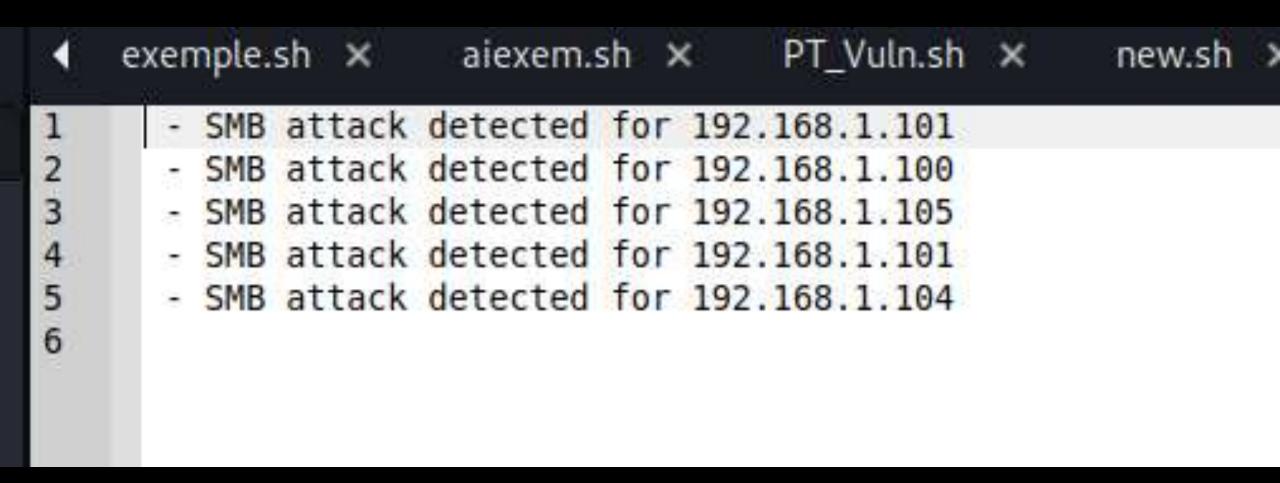
```
2025-01-19 10:56:31 - Attack: DDoS, Target: #!/bin/bash
2025-01-19 10:56:49 - Attack: DDoS, Target: 192.168.189.149
2025-01-19 10:57:51 - Attack: DNS Amplification, Target: 192.168.189.149
2025-01-19 10:59:32 - Attack: MITM, Target: 192.168.189.149
2025-01-19 11:22:22 - Attack: DDoS, Target: 192.168.189.149
2025-01-19 11:23:50 - Attack: DNS Amplification, Target: 192.168.189.149
2025-01-19 11:25:16 - Attack: MITM, Target: 192.168.189.149
2025-01-20 10:15:48 - Attack: MITM, Target: 192.168.189.149
2025-01-20 10:19:16 - Attack: DDoS, Target: 192.168.189.149
2025-01-20 10:20:07 - Attack: DNS Amplification, Target: 192.168.189.149
2025-01-20 15:10:25 - Attack: DDoS, Target: 192.168.189.149
2025-01-20 15:23:54 - Attack: DDoS, Target: 192.168.189.149
2025-01-20 15:24:36 - Attack: DNS Amplification, Target: 192.168.189.149
2025-01-20 15:25:11 - Attack: MITM, Target: 192.168.189.149
2025-01-21 15:07:59 - Attack: DDoS, Target: 192.168.189.149
2025-01-21 15:11:06 - Attack: DNS Amplification, Target: 192.168.189.149
2025-01-21 15:12:35 - Attack: MITM, Target: 192.168.189.149
2025-01-21 15:18:18 - Attack: MITM, Target: 192.168.189.149
2025-01-21 15:19:43 - Attack: MITM, Target: 192.168.189.149
```



soc_results









```
Main Menu:
1. Monitor Attacks
Display IP Addresses
3. Exit
Select the attack type to monitor:
1. SSH Attack Monitoring
SMB Attack Monitoring
3. FTP Attack Monitoring
4. Display All Possible Attacks with Descriptions
5. Choose a Target or Random IP
6. Exit
List of Possible Attacks with Descriptions from auth.log:
1. Failed SSH Login Attempts: Unauthorized attempts to access the system using SSH.
Accepted SSH Connections: Successful SSH logins indicating potential insider activity or legitimate access.
3. Invalid Usernames: Attempts to access the system using non-existent usernames.

    Open and Close Sessions: Tracking session lifecycle for audit or anomaly detection.

IP Address Monitoring: Identifying suspicious or repeated IP addresses attempting access.
Main Menu:
1. Monitor Attacks
2. Display IP Addresses
3. Exit
Select the attack type to monitor:
1. SSH Attack Monitoring
2. SMB Attack Monitoring
3. FTP Attack Monitoring
4. Display All Possible Attacks with Descriptions
5. Choose a Target or Random IP
6. Exit
Monitoring SSH login events... Description: Detecting specific keywords like 'Failed', 'Accepted', or IP patterns in SSH logs.
Main Menu:
1. Monitor Attacks
Display IP Addresses
3. Exit
Select the attack type to monitor:
1. SSH Attack Monitoring
2. SMB Attack Monitoring
3. FTP Attack Monitoring
4. Display All Possible Attacks with Descriptions
5. Choose a Target or Random IP
```

6. Exit