



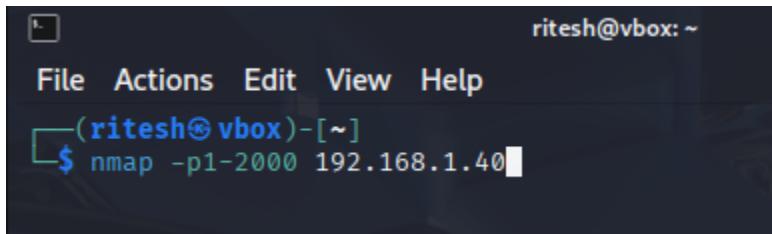
```
1 #!/usr/bin/env python3
2
3 import subprocess, time, re, smtplib
4 from collections import defaultdict, deque
5 from email.mime.text import MIMEText
6
7
8 TCPDUMP_CMD = "/usr/sbin/tcpdump"
9 INTERFACE = ""
10 THRESHOLD = 20
11 WINDOW = 10
12 VERBOSE = True
13
14 # Email config
15 SMTP_USER = "riteshbhanat1807@gmail.com"
16 SMTP_PASS = "rhhhetryarke"
17 ALERT_TO = "riteshbhanat1807@gmail.com"
18 # =====
```

```
IP_RE = re.compile(r"IP\s+(\d+\.\d+\.\d+\.\d+)\.")  
state = defaultdict(lambda: deque())  
  
def send_email(subject, body):  
    if not SMTP_USER or not SMTP_PASS or not ALERT_TO:  
        print("[!] Email not configured (SMTP_USER/SMTP_PASS/ALERT_TO). Skipping email.")  
        return False  
    try:  
        msg = MIMEText(body)  
        msg['Subject'] = subject  
        msg['From'] = SMTP_USER  
        msg['To'] = ALERT_TO  
        with smtplib.SMTP('smtp.gmail.com', 587, timeout=10) as s:  
            s.ehlo()  
            s.starttls()  
            s.login(SMTP_USER, SMTP_PASS)  
            s.sendmail(SMTP_USER, [ALERT_TO], msg.as_string())  
        print("[*] Email alert sent.")  
        return True  
    except Exception as e:  
        print("[!] Failed to send email:", e)  
        return False  
  
def start_tcpdump():  
    iface = ["-i", INTERFACE] if INTERFACE else []  
    cmd = [TCPDUMP_CMD] + iface + ["-n", "-l", "tcp[tcpflags] & tcp-syn != 0"]  
    return subprocess.Popen(cmd, stdout=subprocess.PIPE, stderr=subprocess.DEVNULL, text=True)
```

```
def main():
    print("[*] Simple scan detector starting. Threshold:", THRESHOLD, "WINDOW:", WINDOW,
          "s")
    p = start_tcpdump()
    if not p or not p.stdout:
        print("[!] Failed to start tcpdump. Is it installed and do you have sudo?")
        return
    try:
        while True:
            line = p.stdout.readline()
            if not line:
                time.sleep(0.1)
                continue
            m = IP_RE.search(line)
            if not m:
                continue
            src = m.group(1)
            now = time.time()
            dq = state[src]
            dq.append(now)
```

```
        dq.append(now)
        # purge old
        while dq and dq[0] < now - WINDOW:
            dq.popleft()
        count = len(dq)
        if VERBOSE:
            print(f"[{time.strftime('%H:%M:%S')}] SYN from {src} (count={count})")
        if count >= THRESHOLD:
            msg = f"Detected possible port scan from {src}: {count} SYNs in {WINDOW}s\n" \
                  ".\nExample tcpdump line:\n{line.strip()}"
            print("\n>>> Possible scan detected! Attacker IP:", src, f"({count} SYNs\n" \
                  ")\n")
            send_email(f"Scan detected from {src}", msg)
            state[src].clear()
    except KeyboardInterrupt:
        print("\nExiting.")
        p.terminate()
        p.wait()

if __name__ == "__main__":
    main()
```



A screenshot of a terminal window titled 'ritesh@vbox: ~'. The window has a dark background and light-colored text. At the top, there's a menu bar with 'File', 'Actions', 'Edit', 'View', and 'Help'. Below the menu, the prompt shows '(ritesh@vbox)-[~]'. In the main area, the command '\$ nmap -p1-2000 192.168.1.40' is typed into the terminal.