Task 2: Networking Toolkit PoC

1. Create the script file

nano netinfo.sh

2. Content into `netinfo.sh`

```
#!/bin/bash
REPORT="network_report.txt"
"$REPORT"
echo "=== Network Configuration ===" >> "$REPORT"
ip -br addr show >> "$REPORT"
echo "" >> "$REPORT"
echo "Default Gateway:" >> "$REPORT"
ip route | grep default >> "$REPORT"
echo "" >> "$REPORT"
echo "=== Open Ports ===" >> "$REPORT"
ss -tuln >> "$REPORT"
echo "" >> "$REPORT"
echo "=== Ping google.com ===" >> "$REPORT"
ping -c 4 google.com >> "$REPORT"
echo "" >> "$REPORT"
echo "=== DNS Lookup for openai.com ===" >> "$REPORT"
nslookup openai.com >> "$REPORT"
echo "" >> "$REPORT"
echo "Network report saved to $REPORT"
```

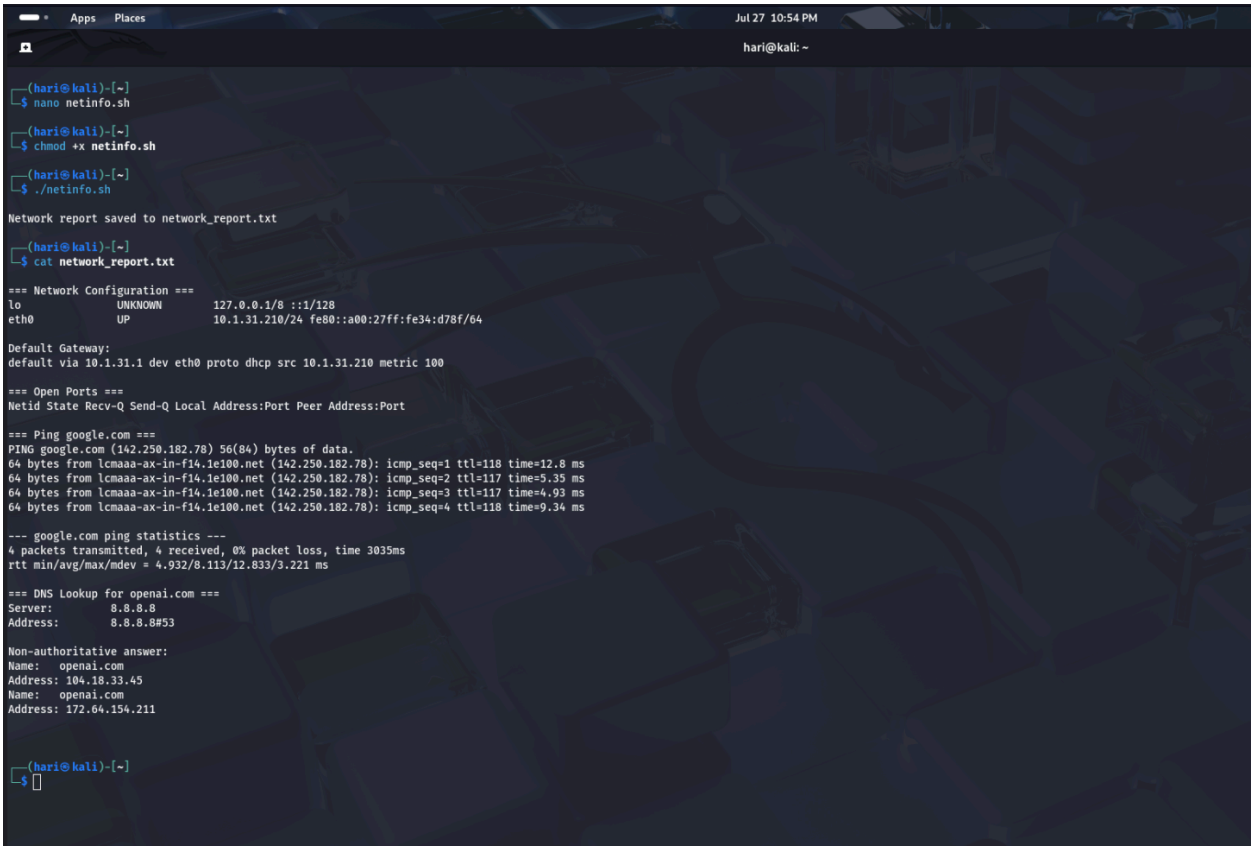
3. Make the script executable:

chmod +x netinfo.sh

./netinfo.sh

4. Check the output file:

cat network_report.txt



Conclusion: Task 2 involved building a basic networking toolkit script to gather essential network diagnostics. The script successfully retrieved the system's IP address, subnet, default gateway, listed open ports, performed a ping test to `google.com`, and resolved the IP of `openai.com`. All output was saved to `network_report.txt`. This task demonstrated practical usage of network commands in Bash scripting and helped validate system connectivity and DNS functionality.