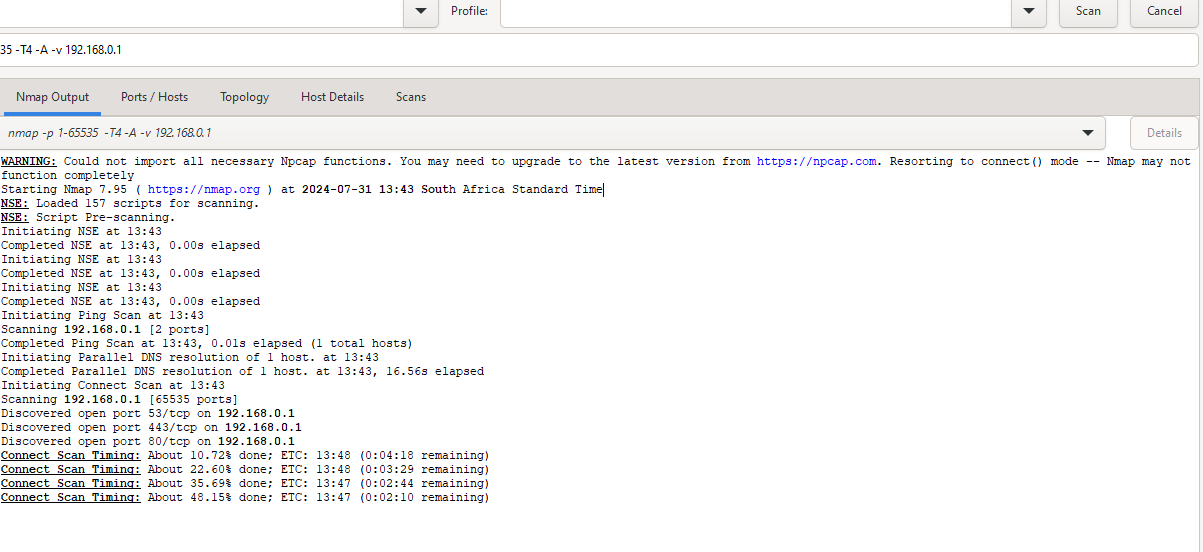
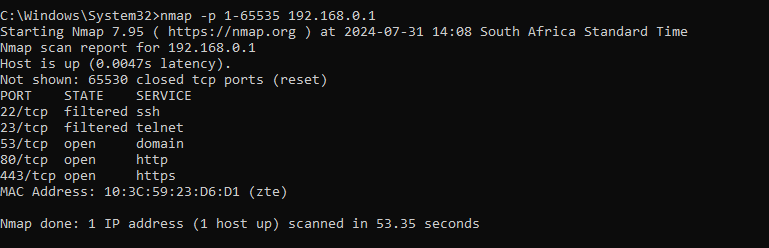
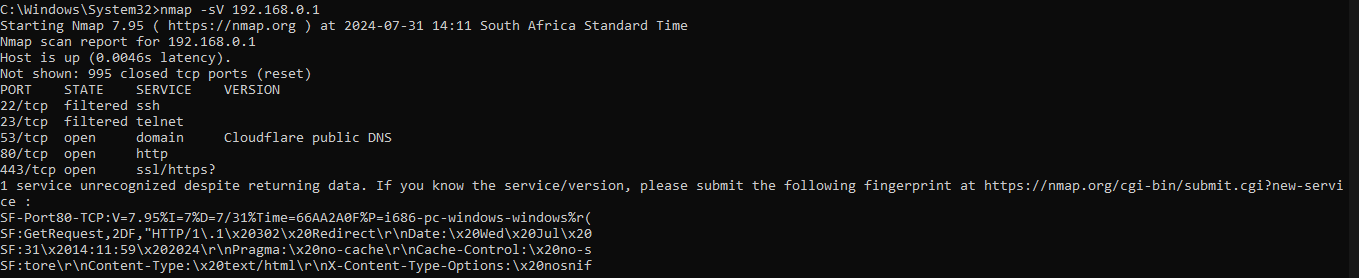
**Basic scanning**

**Scan for open ports:**

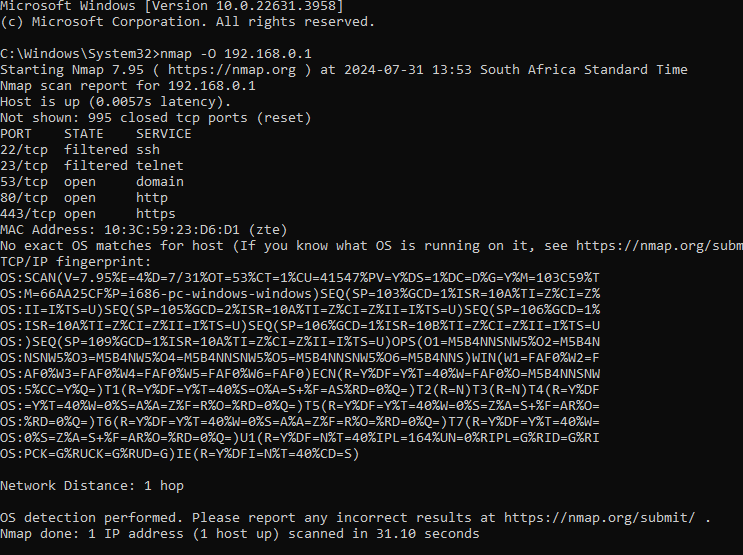


**Service and Version Detection:**

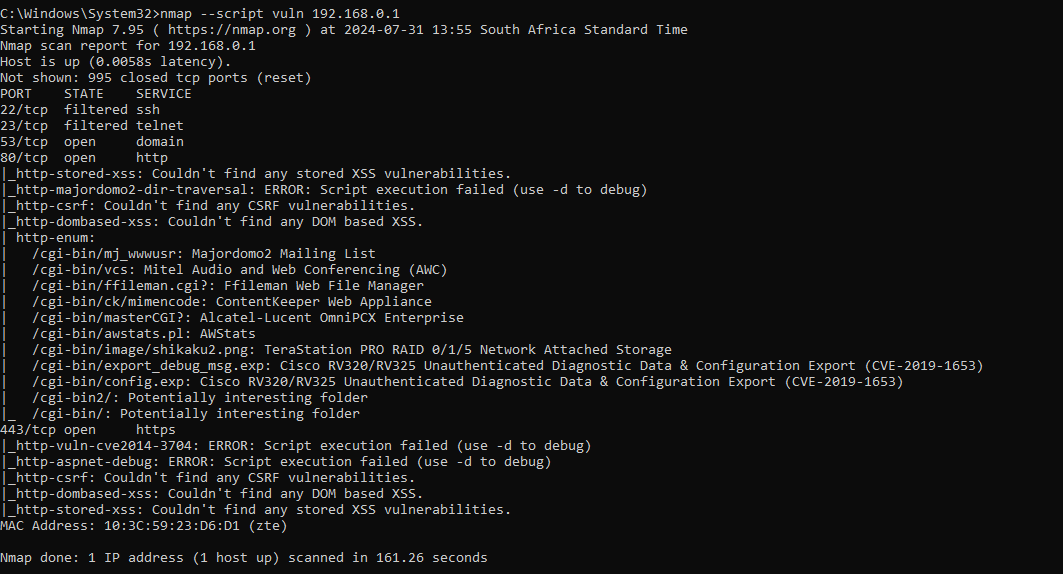
****

**Advanced Nmap Scanning:**

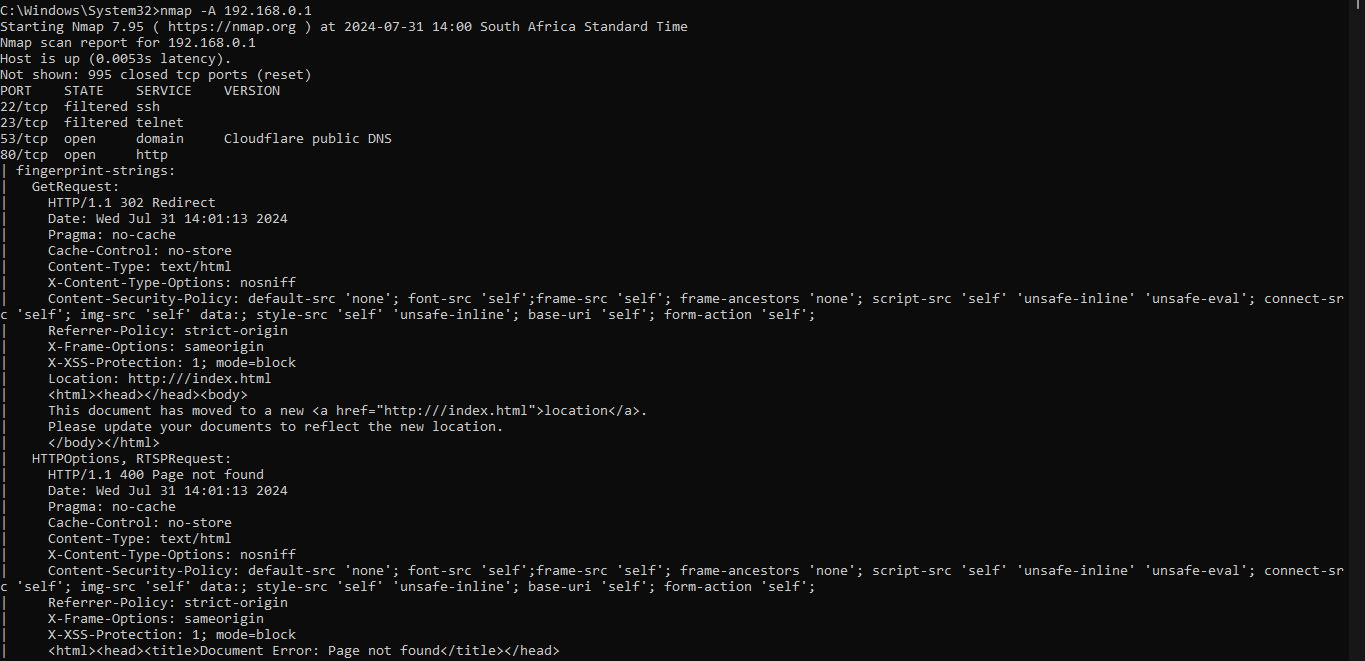
Operating System Detection

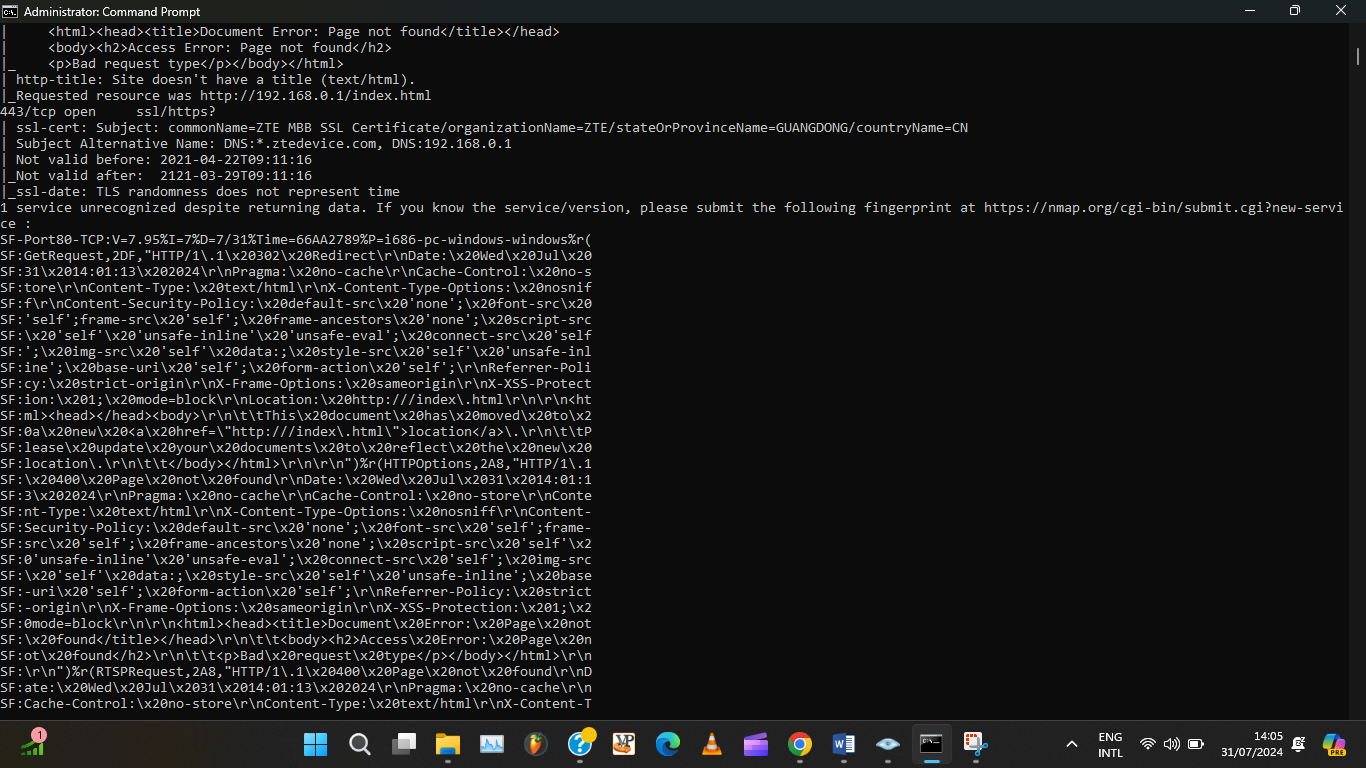


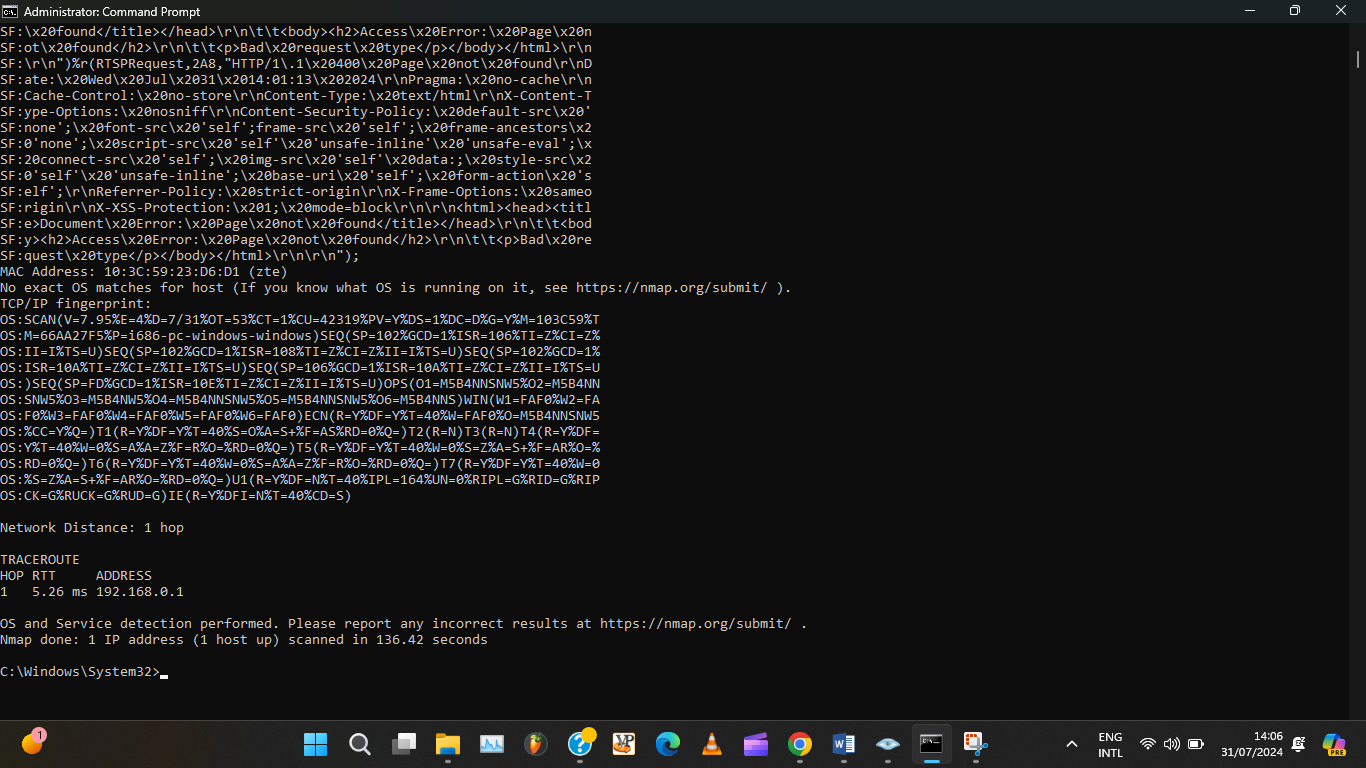
**Vulnerability tests:**



**Aggressive Scan**:







**Automating Nmap Scans with Python**

import nmap

import json

def scan\_network(target):

nm = nmap.PortScanner()

scan\_data = nm.scan(hosts=target, arguments='-A')

return scan\_data

def save\_results(results, filename):

with open(filename, 'w') as file:

json.dump(results, file, indent=4)

if \_\_name\_\_ == '\_\_main\_\_':

target = '192.168.0.1' # target network

results = scan\_network(target)

save\_results(results, 'nmap\_scan\_results.json')

print(f'Scan results saved to nmap\_scan\_results.json')