Task 8 Report: VPN Setup and Privacy Test

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Task Title: Identify and Remove Suspicious Browser Extensions (VPN Privacy Test)

Objective

To understand the role of VPNs in protecting online privacy and ensuring secure communication by setting up and testing a VPN connection.

Tools Used

- VPN: OpenVPN (CLI-based setup)
- Platform: Kali Linux (via VMware Workstation)
- IP Test Website: whatismyipaddress.com

Steps Performed

1. VPN Installation & Configuration

Installed and configured OpenVPN client in Kali Linux.

Loaded .ovpn configuration file for a public VPN server.

Initiated VPN connection via terminal.

Screenshot: OpenVPN terminal output showing successful configuration steps and connection logs.

2. IP Address Verification

Accessed whatismyipaddress.com to confirm new IP.

IPv4 address observed: 223.187.11.247

Location detected: Mumbai, Maharashtra, India

ISP: Google LLC

Screenshot: whatismyipaddress.com displaying new IP address and location.

VPN Concepts Brief

What is a VPN?

A Virtual Private Network (VPN) encrypts your internet connection and routes it through a secure server, masking your real IP address.

How It Protects Privacy

- Encryption ensures data cannot be read by ISPs or attackers.
- IP Masking hides real geographic location.

Encryption Protocol Used

Protocol: OpenVPN

Cipher: AES-256-CBC with SHA256 authentication

VPN Limitations

- May reduce speed depending on server load
- VPN provider may log user data (depends on privacy policy)
- Cannot guarantee complete anonymity

Result

VPN successfully established

IP address and location were changed and verified

Traffic was encrypted, ensuring improved privacy