Task 8 — Working with VPNs

Author: Anshikaa Pahilajani

Cyber Security Internship — Elevate Labs

Date: 3 October 2025

Objective

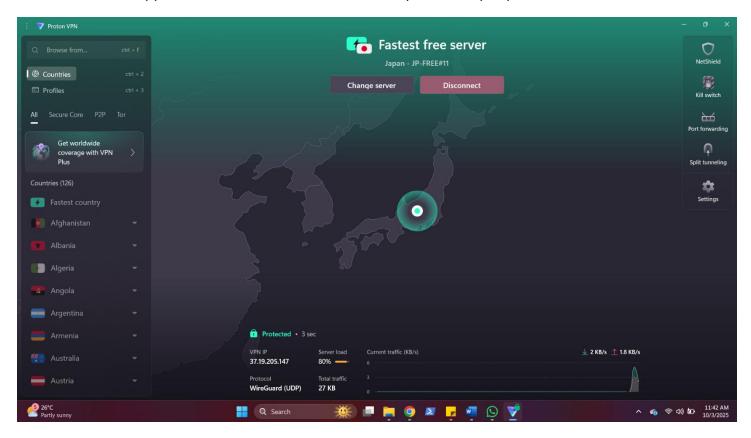
The objective of this task was to gain hands-on experience with a free VPN, understand its role in protecting privacy, encrypting communication, and compare browsing experience with and without a VPN.

Tools Used

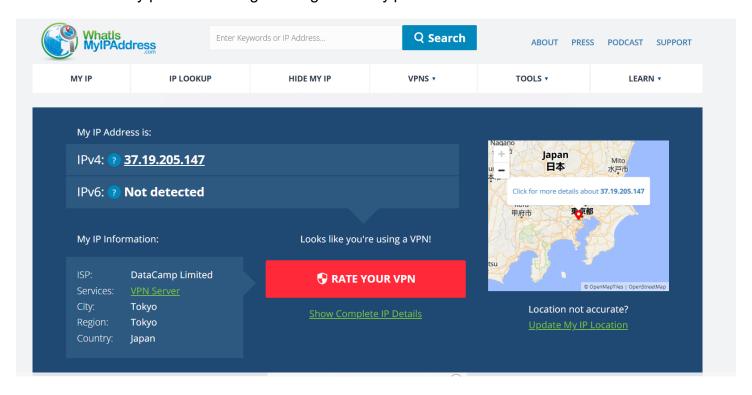
- ProtonVPN (Free Tier) client
- Web browser (Chrome)
- Website for IP verification: https://whatismyipaddress.com

VPN Setup Steps

- 1. Created a free ProtonVPN account.
- 2. Installed ProtonVPN client on my system.
- 3. Launched the app and connected to a FREE server (server: Japan).



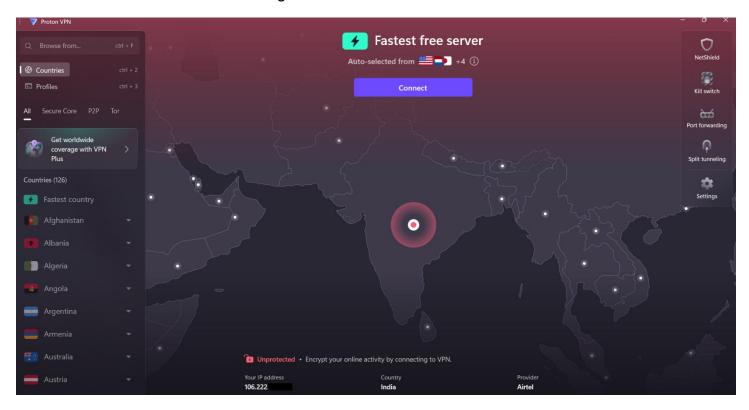
4. Verified that my public IP changed using whatismyipaddress.com.

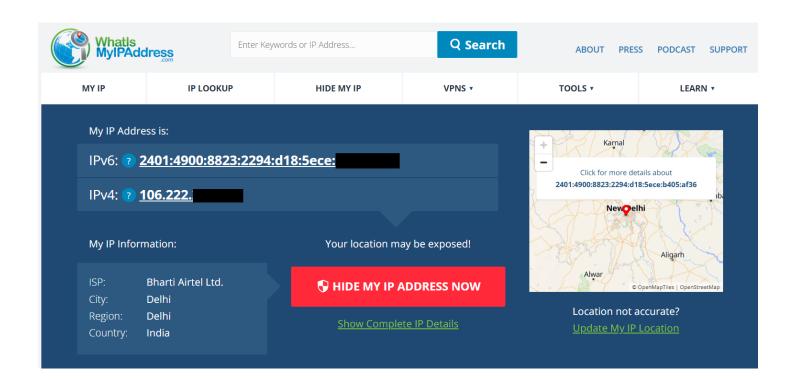


5. Browsed HTTPS websites to confirm secure traffic.



6. Disconnected VPN and verified original IP returned.





Observations

- VPN successfully masked my real IP while connected.
- Browsing worked normally secure HTTPS sites loaded fine.
- Disconnecting VPN instantly restored my original IP.
- Slight slowdown in browsing observed when VPN was active.

Benefits of VPN

- Encrypts internet traffic, protecting from ISPs and hackers.
- Masks IP, improving privacy.
- Useful on public WiFi for secure connections.
- Can bypass geo-blocks or censorship.

Limitations of VPN

- Slightly slower speeds due to encryption and routing.
- Free VPNs may have limited server options.
- VPN does not guarantee complete anonymity.
- Dependence on trust in VPN provider.