

Networking Command -

1. ping - Check Connectivity

- The ping command checks if a computer or website is reachable over a network. It sends small test messages and measures how long they take to return. This helps find out if there are delays, lost data, or connection issues and ping cmd use ICMP protocol

- ping URL/IP address

e.g ping trainwithshubham.com

2. traceroute / tracert - Trace Packet Routes

- The tracert command is used to trace the path that packets take from a source to a specific destination. **TTL (Time to Live)** is an important parameter in tracert, as it determines the lifespan of packets and helps identify each hop along the route.

- tracert URL/IP address

e.g tracert trainwithshubham.com

3. netstat - Network Statistics

-a (Show All Connections) - Shows all active network connections,

-b (Show Programs Using the Internet) - Displays which program or app is using each network connection.

-e (Show Data Sent/Received) - Tells how much data has been sent and received, including errors.

-n (Show Numbers Instead of Names) - Displays IP addresses and port numbers instead of converting them into names (faster results)

-o (Show Process ID for Each Connection) - Helps find which process (running task) is using a network connection.

-p (Show Program Name and ID) - Similar to -o, but also shows the program name along with its ID.

-r (Show Network Routes) - Displays how your computer decides where to send data on the internet or local network.

-s (Show Network Traffic Stats) - Gives a summary of how much data is being sent and received, useful for troubleshooting slow internet.

4. curl - Make HTTP Requests

- curl (Client URL) is a command-line tool used to make HTTP requests to servers. It supports various protocols like HTTP, HTTPS, FTP, and more. It is widely used for testing APIs, downloading files, and interacting with web services

- GET request
- POST request
- PUT request
- PATCH request
- DELETE request

5. dig / nslookup - DNS Lookup

- nslookup is a network administration tool that queries DNS servers to find information about a domain or IP address. It is available on Windows, Linux, and macOS.

- nslookup url/IP

e.g nslookup google.com