

Computer Networks Lab (CS 3272)

Assignment – 1

Assigned date: 11-Jan-2022

Submission date: 18-Jan-2022

The aim of this assignment is to make you familiar with basic network commands and tools.

1. Read the man pages of `ifconfig`, `ping`, `traceroute`, `arp`, `dig`, `nslookup`, and `netstat` and write their utilities in brief.
2. Find the IP and hardware addresses of your machine using `ifconfig` command.
(1+1=2)
3. Use `ping <AnyURL>` command and find out
 - i. the average RTT (round trip time).
 - ii. the %packet loss.
 - iii. size of packet that is sent to `<AnyURL>` server.
 - iv. size of packet that is received by your machine.
4. Use `dig <AnyURL>` command and find out
 - i. the IP address of `<AnyURL>`.
 - ii. the IP addresses of DNS servers.
5. Use `traceroute <AnyURL>` and find out
 - i. number of hops in between your machine and `<AnyURL>` server.
 - ii. the IP address of your network gateway of your subnet.
6. Use `arp` command to find out the MAC address of the device that is performing as your network gateway.
7. Use `nslookup <AnyURL>` command and find out the IP address of `<AnyURL>`.
Use `nslookup <IP address>` command and perform reverse domain lookup.
8. Use `netstat` command and find out the active connections of your machine.