

## Exp 2 Basic networking commands

- ping google.com
- traceroute google.com #Display the route packets take to reach the destination.
- nslookup google.com #this will return the IP address of the domain or the domain name for a given IP
- netstat -a #The -a flag lists all active connections and listening ports.
- arp -a #This shows the current ARP table of the system
- rarp -d [interface] # It's used to find the IP address when given a MAC address.
- ip addr show #This will show all the IP addresses configured on your system
- Ifconfig
- dig google.com #It provides detailed information about DNS resolution
- route -n #route -n

## Exp4 Nmap

1. Sudo apt-get install nmap
2. nmap -sn 192.168.1.0/24 #This scans a range of IP addresses to find live hosts
3. nmap 192.168.1.10 #This will find open ports on a specific IP address or domain.
4. nmap -o 192.168.1.10 # detect the operating system, version, and services running on a host.
5. nmap -p 80 192.168.1.10 #scan for a particular service like HTTP on a specific port

## Exp 5 Ip tables

### Part 1 Set Up Multiple IP Addresses on a Single LAN

1. `sudo ip addr add 192.168.1.100/24 dev <interface name>`
2. `ip addr show eth0` #verify the addr
3. `sudo ifconfig eth0:0 192.168.1.100 netmask 255.255.255.0` #Assigning IP addresses to the network interface
4. `ifconfig <interface name>` # verify

### Part 2 Using `netstat` and `route` Commands

1. `netstat -rn` #display routing table
2. `netstat -n` #shows the kernel routing table, displaying destinations, gateways, interfaces, and other route information.
3. `sudo route add -net 192.168.2.0 netmask 255.255.255.0 gw 192.168.1.1` #This adds a route to the 192.168.2.0/24 network via the gateway 192.168.1.1.
4. `sudo route del -net 192.168.2.0 netmask 255.255.255.0` #To delete the route
5. `sudo route del default` #Delete Existing Default Gateway

### Part 3 not done

## Exp 6 socket programming

#will be uploaded soon

## Exp 8 Telnet

### Part 1 : setup

1. Sudo apt-get install xinetd telnetd
2. Sudo gedit /etc/inetd.config [#this opens the gedit file](#)
3. telnet stream tcp nowait telnetd /usr/sbin/tcpd /usr/sbin/in.telnetd [#add this line to the file](#)
4. Sudo gedit /etc/xinetd.config [#open this file](#)

5.

[#Add this there](#)

```
defaluts
{
  log_on_success
  instances=60
  log_type=SYSLOG authpriv
  log_on_success= HOST PID
  log_on_failure=HOST
  cps=25 30
}
```

6. Sudo etc /init.d/xinetd restart [#restart xinetd](#)

### Part 2 : test

1. Telnet <ipaddr of target device >
2. Is [#list the files](#)