

```
mushroomyumi@Mushroom:~/Desktop/Windows/Python/maktab137/week10/hw$ ls  
a_test.txt b_test.txt c.txt d.txt downloader.sh log.txt  
mushroomyumi@Mushroom:~/Desktop/Windows/Python/maktab137/week10/hw$ ls | sort  
a_test.txt  
b_test.txt  
c.txt  
d.txt  
downloader.sh  
log.txt  
mushroomyumi@Mushroom:~/Desktop/Windows/Python/maktab137/week10/hw$ ls | sort -r  
log.txt  
downloader.sh  
d.txt  
c.txt  
b_test.txt  
a_test.txt  
mushroomyumi@Mushroom:~/Desktop/Windows/Python/maktab137/week10/hw$ ls -lt  
total 0  
-rwxrwxrwx 1 root root 12 Nov 15 11:02 d.txt  
-rwxrwxrwx 1 root root 0 Nov 15 10:55 c.txt  
-rwxrwxrwx 1 root root 0 Nov 15 10:55 b_test.txt  
-rwxrwxrwx 1 root root 0 Nov 15 10:55 a_test.txt  
-rwxrwxrwx 1 root root 175 Nov 15 10:51 downloader.sh  
-rwxrwxrwx 1 root root 30 Nov 15 10:51 log.txt  
mushroomyumi@Mushroom:~/Desktop/Windows/Python/maktab137/week10/hw$ ls -a  
[■ ■] .v.txt a_test.txt b_test.txt c.txt d.txt downloader.sh log.txt  
mushroomyumi@Mushroom:~/Desktop/Windows/Python/maktab137/week10/hw$ ls -alt  
total 0  
drwxrwxrwx 1 root root 448 Nov 15 11:05 [■]  
-rwxrwxrwx 1 root root 0 Nov 15 11:03 .v.txt  
-rwxrwxrwx 1 root root 12 Nov 15 11:02 d.txt  
-rwxrwxrwx 1 root root 0 Nov 15 10:55 c.txt  
-rwxrwxrwx 1 root root 0 Nov 15 10:55 b_test.txt  
-rwxrwxrwx 1 root root 0 Nov 15 10:55 a_test.txt  
-rwxrwxrwx 1 root root 175 Nov 15 10:51 downloader.sh  
-rwxrwxrwx 1 root root 30 Nov 15 10:51 log.txt  
drwxrwxrwx 1 root root 232 Nov 15 10:39 [■]  
mushroomyumi@Mushroom:~/Desktop/Windows/Python/maktab137/week10/hw$ ls | wc -l  
6  
mushroomyumi@Mushroom:~/Desktop/Windows/Python/maktab137/week10/hw$ ls -a | wc -l  
9  
mushroomyumi@Mushroom:~/Desktop/Windows/Python/maktab137/week10/hw$ ls | grep "Test" -i  
a_test.txt  
b_test.txt  
mushroomyumi@Mushroom:~/Desktop/Windows/Python/maktab137/week10/hw$
```

```
mushroomyumi@Mushroom:~$ sudo nmap -sP 192.168.1.0/24
Starting Nmap 7.95 ( https://nmap.org ) at 2025-11-19 00:35 +0330
Stats: 0:00:00 elapsed; 0 hosts completed (0 up), 255 undergoing ARP Ping Scan
ARP Ping Scan Timing: About 50.39% done; ETC: 00:35 (0:00:00 remaining)
Nmap scan report for _gateway (192.168.1.1)
Host is up (0.0066s latency).
MAC Address: A4:2B:B0:28:A2:50 (TP-Link Technologies)
Nmap scan report for 192.168.1.100
Host is up (0.068s latency).
MAC Address: 4C:F2:02:D3:1A:28 (Xiaomi Communications)
Nmap scan report for Mushroom (192.168.1.103)
Host is up.
Nmap done: 256 IP addresses (3 hosts up) scanned in 2.06 seconds
mushroomyumi@Mushroom:~$ ping -c 5 192.168.1.1
PING 192.168.1.1 (192.168.1.1) 56(84) bytes of data.
64 bytes from 192.168.1.1: icmp_seq=1 ttl=64 time=3.76 ms
64 bytes from 192.168.1.1: icmp_seq=2 ttl=64 time=7.85 ms
64 bytes from 192.168.1.1: icmp_seq=3 ttl=64 time=4.75 ms
64 bytes from 192.168.1.1: icmp_seq=4 ttl=64 time=2.63 ms
64 bytes from 192.168.1.1: icmp_seq=5 ttl=64 time=3.22 ms

--- 192.168.1.1 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4006ms
rtt min/avg/max/mdev = 2.628/4.442/7.853/1.843 ms
mushroomyumi@Mushroom:~$ ping -c 5 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=113 time=411 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=113 time=44.3 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=113 time=73.8 ms
64 bytes from 8.8.8.8: icmp_seq=4 ttl=113 time=38.3 ms
64 bytes from 8.8.8.8: icmp_seq=5 ttl=113 time=736 ms

--- 8.8.8.8 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4003ms
rtt min/avg/max/mdev = 38.276/260.681/736.359/275.663 ms
mushroomyumi@Mushroom:~$ 
```

Sudo nmap baraye namayeshe host haye connect shode be yek network moshtarak mibahsad (netmask bayad dade shaved)

-c baraye count mibashad va tedad ping haei ke packet mifrestand zamane tahvil namayesh dade mishavad.

```
mushroomyumi@Mushroom: ~
mushroomyumi@Mushroom:~$ traceroute www.google.com
traceroute to www.google.com (216.239.38.120), 30 hops max, 60 byte packets
 1 _gateway (192.168.1.1)  3.113 ms  3.089 ms  3.045 ms
 2 2.190.128.1 (2.190.128.1)  16.250 ms  18.087 ms  19.708 ms
 3 172.19.1.49 (172.19.1.49)  21.457 ms  23.337 ms  24.280 ms
 4 10.22.27.41 (10.22.27.41)  25.229 ms  27.439 ms  30.103 ms
 5 10.21.249.198 (10.21.249.198)  31.330 ms  32.984 ms  34.156 ms
 6 * * *
 7 * * *
 8 * * *
 9 * * *
10 * * *
11 * * *
12 any-in-2678.1e100.net (216.239.38.120)  39.731 ms  38.771 ms  40.665 ms
mushroomyumi@Mushroom:~$ traceroute -m 12 www.google.com
traceroute to www.google.com (216.239.38.120), 12 hops max, 60 byte packets
 1 _gateway (192.168.1.1)  3.810 ms  4.161 ms  4.140 ms
 2 2.190.128.1 (2.190.128.1)  17.261 ms  18.563 ms  19.765 ms
 3 172.19.1.49 (172.19.1.49)  22.160 ms  23.909 ms  24.922 ms
 4 10.22.27.41 (10.22.27.41)  26.879 ms  29.755 ms  30.472 ms
 5 10.21.249.198 (10.21.249.198)  32.644 ms  34.621 ms  35.316 ms
 6 * * *
 7 * * *
 8 * * *
 9 * * *
10 * * *
11 * * *
12 any-in-2678.1e100.net (216.239.38.120)  38.353 ms  40.052 ms  42.728 ms
mushroomyumi@Mushroom:~$ traceroute 192.168.1.1
traceroute to 192.168.1.1 (192.168.1.1), 30 hops max, 60 byte packets
 1 _gateway (192.168.1.1)  2.638 ms  2.752 ms  4.293 ms
mushroomyumi@Mushroom:~$ ~
```

Traceroute baraye namayeshe masire hop ha mibashad:

Gateway 192.168.1.1 mibashad va ebteda host az gateway router oboor mikonad va az local kharej mishavad va varedé ISP mishavad va bad az gozar az tedadi IP chand ja block mishavad va be maghsad miresad.

```
mushroomyumi@Mushroom: ~
mushroomyumi@Mushroom:~$ ifconfig
enp1s0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    ether 74:86:7a:05:26:17 txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 prefixlen 128 scopeid 0x10<host>
            loop txqueuelen 1000 (Local Loopback)
            RX packets 3218 bytes 271756 (271.7 KB)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 3218 bytes 271756 (271.7 KB)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlp2s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.1.103 netmask 255.255.255.0 broadcast 192.168.1.255
        inet6 fe80::fe80:7be0:57a6:3 txqueuelen 1000 (Ethernet)
            ether b8:76:3f:2b:d6:a3 txqueuelen 1000 (Ethernet)
            RX packets 24873 bytes 26037818 (26.0 MB)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 19024 bytes 4791510 (4.7 MB)
            TX errors 0 dropped 7 overruns 0 carrier 0 collisions 0

mushroomyumi@Mushroom:~$ ip route show
default via 192.168.1.1 dev wlp2s0 proto dhcp src 192.168.1.103 metric 600
192.168.1.0/24 dev wlp2s0 proto kernel scope link src 192.168.1.103 metric 600
mushroomyumi@Mushroom:~$ ifconfig wlp2s0 | grep 'inet ' | awk '{print $2}'
192.168.1.103
mushroomyumi@Mushroom:~$ sudo ifconfig wlp2s0 0.0.0.0
mushroomyumi@Mushroom:~$ ifconfig wlp2s0 | grep 'inet ' | awk '{print $2}'
mushroomyumi@Mushroom:~$ sudo ifconfig wlp2s0 192.168.1.102 netmask 255.255.255.0
mushroomyumi@Mushroom:~$ sudo route add default gw 192.168.1.1
mushroomyumi@Mushroom:~$ ifconfig wlp2s0 | grep 'inet ' | awk '{print $2}'
192.168.1.102
mushroomyumi@Mushroom:~$
```

'Inet' ro grep mikonim ke inet6 ham grep nashavad v aba awk split mikonim va item dovom ro print mikonim ke inet ya ip host ro behemoon neshoon bede

```
mushroomyumi@Mushroom: ~
mushroomyumi@Mushroom:~$ netstat -n | grep ESTABLISHED
tcp        0      0 192.168.1.102:54856    35.186.224.44:443      ESTABLISHED
tcp        0      0 192.168.1.102:46750    142.250.186.110:443      ESTABLISHED
tcp        0      0 192.168.1.102:46762    142.250.186.110:443      ESTABLISHED
tcp        0      0 192.168.1.102:50898    142.250.185.202:443      ESTABLISHED
tcp        0      0 192.168.1.102:42024    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:42028    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:42032    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:42044    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:56416    52.0.66.35:443      ESTABLISHED
tcp        0      0 192.168.1.102:45094    18.244.18.38:443      ESTABLISHED
tcp        0      0 192.168.1.102:46018    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:46028    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:37868    172.64.155.209:443      ESTABLISHED
tcp        0      0 192.168.1.102:55270    104.18.32.47:443      ESTABLISHED
tcp        0      0 192.168.1.102:50772    18.244.18.38:443      ESTABLISHED
tcp        0      0 192.168.1.102:51926    142.250.186.78:443      ESTABLISHED
tcp        0      0 192.168.1.102:44376    142.250.185.163:443      ESTABLISHED
tcp        0      0 192.168.1.102:36112    65.9.175.23:443      ESTABLISHED
tcp        0      0 192.168.1.102:36138    65.9.175.23:443      ESTABLISHED
tcp        0      0 192.168.1.102:51406    151.101.3.42:443      ESTABLISHED
tcp        0      0 192.168.1.102:58026    142.250.181.232:443      ESTABLISHED
tcp        0      0 192.168.1.102:36060    146.75.116.157:443      ESTABLISHED
tcp        0      0 192.168.1.102:36076    146.75.116.157:443      ESTABLISHED
tcp        0      0 192.168.1.102:53884    35.186.224.24:443      ESTABLISHED
tcp        0      0 192.168.1.102:35610    151.101.66.91:443      ESTABLISHED
tcp        0     180 192.168.1.103:42990    104.18.39.21:443      ESTABLISHED
tcp        0      0 192.168.1.102:33010    199.232.210.250:443      ESTABLISHED
tcp        0      0 192.168.1.102:33026    199.232.210.250:443      ESTABLISHED
tcp        0      0 192.168.1.102:32930    216.239.32.181:443      ESTABLISHED
tcp        0      0 192.168.1.102:32940    216.239.32.181:443      ESTABLISHED
tcp        0      0 192.168.1.102:35090    142.251.143.67:443      ESTABLISHED
tcp        0      0 192.168.1.102:33478    35.186.224.26:443      ESTABLISHED
tcp        0      0 192.168.1.102:38190    18.239.208.100:443      ESTABLISHED
tcp        0      0 192.168.1.102:38192    18.239.208.100:443      ESTABLISHED
tcp        0      0 192.168.1.102:35298    35.186.224.41:443      ESTABLISHED
tcp        0      0 192.168.1.102:56938    74.125.206.188:5228      ESTABLISHED
tcp        0      0 192.168.1.102:34148    35.186.224.24:443      ESTABLISHED
tcp        0      0 192.168.1.102:34150    35.186.224.24:443      ESTABLISHED
tcp        0      0 192.168.1.102:47148    172.64.155.119:443      ESTABLISHED
tcp        0      0 192.168.1.102:36148    172.217.23.110:443      ESTABLISHED
udp        0      0 192.168.1.102:53572    35.186.224.28:443      ESTABLISHED
udp        0      0 192.168.1.102:42411    216.239.38.120:443      ESTABLISHED
udp        0      0 192.168.1.103:68      192.168.1.1:67      ESTABLISHED
mushroomyumi@Mushroom:~$ netstat -n | grep tcp
tcp        0      0 192.168.1.102:54856    35.186.224.44:443      ESTABLISHED
tcp        0      0 192.168.1.102:46750    142.250.186.110:443      ESTABLISHED
tcp        0      0 192.168.1.102:46762    142.250.186.110:443      ESTABLISHED
tcp        0      0 192.168.1.102:50898    142.250.185.202:443      ESTABLISHED
tcp        0      0 192.168.1.102:42024    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:42028    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:42032    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:42044    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:56416    52.0.66.35:443      ESTABLISHED
tcp        0      0 192.168.1.102:45094    18.244.18.38:443      ESTABLISHED
```

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mushroomyumi@Mushroom: ~
mushroomyumi@Mushroom:~$ netstat -n | grep tcp
tcp        0      0 192.168.1.102:36148    172.217.23.110:443      ESTABLISHED
udp        0      0 192.168.1.102:53572    35.186.224.28:443      ESTABLISHED
udp        0      0 192.168.1.102:42411    216.239.38.120:443      ESTABLISHED
udp        0      0 192.168.1.103:68       192.168.1.1:67        ESTABLISHED
mushroomyumi@Mushroom:~$ netstat -n | grep udp
tcp        0      0 192.168.1.102:54856    35.186.224.44:443      ESTABLISHED
tcp        0      0 192.168.1.102:46750    142.250.186.110:443      ESTABLISHED
tcp        0      0 192.168.1.102:46762    142.250.186.110:443      ESTABLISHED
tcp        0      0 192.168.1.102:50898    142.250.185.202:443      ESTABLISHED
tcp        0      0 192.168.1.102:42024    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:42028    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:42032    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:42044    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:56416    52.0.66.35:443        ESTABLISHED
tcp        0      0 192.168.1.102:45094    18.244.18.38:443        ESTABLISHED
tcp        0      0 192.168.1.102:46018    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:46028    146.75.122.248:443      ESTABLISHED
tcp        0      0 192.168.1.102:37868    172.64.155.209:443      ESTABLISHED
tcp        0      0 192.168.1.102:55270    104.18.32.47:443        ESTABLISHED
tcp        0      0 192.168.1.102:50772    18.244.18.38:443        ESTABLISHED
tcp        0      0 192.168.1.102:51926    142.250.186.78:443      ESTABLISHED
tcp        0      0 192.168.1.102:44376    142.250.185.163:443      ESTABLISHED
tcp        0      0 192.168.1.102:36112    65.9.175.23:443        ESTABLISHED
tcp        0      0 192.168.1.102:36138    65.9.175.23:443        ESTABLISHED
tcp        0      0 192.168.1.102:51406    151.101.3.42:443        ESTABLISHED
tcp        0      0 192.168.1.102:58026    142.250.181.232:443      ESTABLISHED
tcp        0      0 192.168.1.102:36060    146.75.116.157:443      ESTABLISHED
tcp        0      0 192.168.1.102:36076    146.75.116.157:443      ESTABLISHED
tcp        0      0 192.168.1.102:53884    35.186.224.24:443        ESTABLISHED
tcp        0      0 192.168.1.102:35610    151.101.66.91:443        ESTABLISHED
tcp        0      1 192.168.1.102:49568    10.10.34.36:443        SYN_SENT
tcp        0      1 192.168.1.102:49576    10.10.34.36:443        SYN_SENT
tcp        0      1 192.168.1.102:49592    10.10.34.36:443        SYN_SENT
tcp        0      1 192.168.1.102:49606    10.10.34.36:443        SYN_SENT
tcp        0     180 192.168.1.103:42990    104.18.39.21:443        ESTABLISHED
tcp        0      0 192.168.1.102:33010    199.232.210.250:443      ESTABLISHED
tcp        0      0 192.168.1.102:33026    199.232.210.250:443      ESTABLISHED
tcp        0      0 192.168.1.102:32930    216.239.32.181:443        ESTABLISHED
tcp        0      0 192.168.1.102:32940    216.239.32.181:443        ESTABLISHED
tcp        0      0 192.168.1.102:35090    142.251.143.67:443        ESTABLISHED
tcp        0      1 192.168.1.103:57950    172.64.155.209:443      FIN_WAIT1
tcp        0      1 192.168.1.103:58846    74.125.130.188:5228      FIN_WAIT1
tcp        0      0 192.168.1.102:33478    35.186.224.26:443        ESTABLISHED
tcp        0      0 192.168.1.102:38190    18.239.208.100:443        ESTABLISHED
tcp        0      0 192.168.1.102:38192    18.239.208.100:443        ESTABLISHED
tcp        0      0 192.168.1.102:35298    35.186.224.41:443        ESTABLISHED
tcp        0      0 192.168.1.102:56938    74.125.206.188:5228      ESTABLISHED
tcp        0      0 192.168.1.102:34148    35.186.224.24:443        ESTABLISHED
tcp        0      0 192.168.1.102:34150    35.186.224.24:443        ESTABLISHED
tcp        0      0 192.168.1.102:47148    172.64.155.119:443        ESTABLISHED
tcp        0      0 192.168.1.102:36148    172.217.23.110:443      ESTABLISHED
mushroomyumi@Mushroom:~$ netstat -n | grep udp
udp        0      0 192.168.1.102:42411    216.239.38.120:443      ESTABLISHED
udp        0      0 192.168.1.103:68       192.168.1.1:67        ESTABLISHED
mushroomyumi@Mushroom:~$ ';
```

```
mushroomyumi@Mushroom: ~
mushroomyumi@Mushroom:~$ netstat -h
usage: netstat [-vWeenNcCF] [<Af>] -r          netstat {-V|--version|-h|--help}
               netstat [-vWnNcaeol] [<Socket> ...]
               netstat { [-vWeenNac] -i | [-cnNe] -M | -s [-6tuw] }

-r, --route           display routing table
-i, --interfaces     display interface table
-g, --groups          display multicast group memberships
-s, --statistics      display networking statistics (like SNMP)
-M, --masquerade     display masqueraded connections

-v, --verbose         be verbose
-W, --wide             don't truncate IP addresses
-n, --numeric          don't resolve names
--numeric-hosts       don't resolve host names
--numeric-ports       don't resolve port names
--numeric-users        don't resolve user names
-N, --symbolic        resolve hardware names
-e, --extend            display other/more information
-p, --programs         display PID/Program name for sockets
-o, --timers           display timers
-c, --continuous       continuous listing

-l, --listening       display listening server sockets
-a, --all              display all sockets (default: connected)
-F, --fib              display Forwarding Information Base (default)
-C, --cache            display routing cache instead of FIB
-Z, --context          display SELinux security context for sockets

<Socket>={-t|--tcp} { -u|--udp} { -U|--udplite} { -S|--sctp} { -w|--raw}
           { -x|--unix} --ax25 --ipx --netrom
<Af>=Use '-6|-4' or '-A <af>' or '--<af>'; default: inet
List of possible address families (which support routing):
  inet (DARPA Internet) inet6 (IPv6) ax25 (AMPR AX.25)
  netrom (AMPR NET/ROM) rose (AMPR ROSE) ipx (Novell IPX)
  ddp (Appletalk DDP) x25 (CCITT X.25)
mushroomyumi@Mushroom:~$ netstat -s
Ip:
  Forwarding: 2
  34220 total packets received
    11 with invalid addresses
    0 forwarded
    0 incoming packets discarded
  34150 incoming packets delivered
  24172 requests sent out
    771 dropped because of missing route
  OutTransmits: 24675
Icmp:
  188 ICMP messages received
  0 input ICMP message failed
  ICMP input histogram:
    destination unreachable: 131
    timeout in transit: 30
    echo replies: 27
  608 ICMP messages sent
```

Ba –h statistics ro peyda mikonim (-s) va sepas etelate morede nazar ro daryaft mikonim.

```
mushroomyumi@Mushroom:~$ nslookup google.com
Server:      127.0.0.53
Address:     127.0.0.53#53

Non-authoritative answer:
Name:   google.com
Address: 216.239.38.120

mushroomyumi@Mushroom:~$ nslookup 8.8.8.8
8.8.8.in-addr.arpa    name = dns.google.

Authoritative answers can be found from:

mushroomyumi@Mushroom:~$ nslookup google.com 8.8.8.8
Server:      8.8.8.8
Address:     8.8.8.8#53

Non-authoritative answer:
Name:   google.com
Address: 216.239.38.120
Name:   google.com
Address: 2001:4860:4802:32::78

mushroomyumi@Mushroom:~$
```

```
mushroomyumi@Mushroom: ~
mushroomyumi@Mushroom:~$ sudo nano /etc/hosts
```

```
mushroomyumi@Mushroom: ~ — sudo nano /etc/hosts
GNU nano 8.4
/etc/hosts
127.0.0.1 localhost
127.0.1.1 Mushroom
192.168.1.50 myserver.local

# The following lines are desirable for IPv6 capable hosts
::1      ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters

[ Read 11 lines ]
^G Help      ^O Write Out    ^F Where Is    ^K Cut        ^T Execute    ^C Location   M-U Undo
^X Exit      ^R Read File   ^\ Replace     ^U Paste      ^J Justify    ^/ Go To Line M-E Redo
```

```
mushroomyumi@Mushroom:~$ nslookup myserver.local
Server:      127.0.0.53
Address:     127.0.0.53#53

Name:   myserver.local
Address: 192.168.1.50

mushroomyumi@Mushroom:~$ nslookup 192.168.1.50
50.1.168.192.in-addr.arpa      name = myserver.local.

mushroomyumi@Mushroom:~$
```

Yek address custom ijad karde va myserver.local ijad karde va yek IP custom midahim va mitavan an ra lookup ya reverse lookup kard.

HTTP:

GET: baraye daryaft etelaat.

POST: baraye ersale etelaat jaded.

PUT: baraye update kardan etelaat va jaygozin kardan.

DELETE: baraye pak kardan etelaat.

IP: address va makan baraye mabda va maghsad ersal etelaat mibashad.

TCP: in protocol manand peik amal mikonad va motmaen mishavad ke etelaat ersal mishavad va agar baraye mesal packet loss bokhorad dobare ersal mikonad amniat bishtari nesbat be UDP darad va UDP be onvane protocol baraye kar haei ke sorat ahamiat bishtari darad estefade mishavad.

Routers: modem va gateway baraye etesal be global internet mibashad.

Switch: Etesal chand host be ham dar yek network.

DNS: manande dictionary baraye tabdil domain name be address mibashad

127.0.0.53 ham address local dns linux mibashad va mitavan query kardan az yek dns digar estefade kard.