

30.7.2024

Linux commands

[illegible]

EXP.NO:1B

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```
student@kali: ~  
$ netstat  
Active Internet connections (w/o servers)  
Proto Recv-Q Send-Q Local Address           Foreign Address         State  
tcp        0      0 kali:55594             93.243.107.34.bc.:https ESTABLISHED  
tcp        0      0 kali:52302             maa05s20-in-f5.1e:https ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.142:57226     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.171:46808     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.172:41444     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.148:53856     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.166:43218     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.164:51924     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.145:41456     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.168:44144     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.175:46438     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.149:57886     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.170:40720     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.150:35562     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.146:38238     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.151:39120     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.141:59982     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.169:37584     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.144:36528     ESTABLISHED  
tcp6       0      0 172.16.52.152:35034     172.16.52.162:1716     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.173:39308     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.147:59646     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.165:52082     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.153:39906     ESTABLISHED  
tcp6       0      0 172.16.52.152:1716     172.16.52.143:53538     ESTABLISHED  
Active UNIX domain sockets (w/o servers)  
Proto RefCnt Flags               Type           State         I-Node  Path  
unix    3      [ ]               STREAM         CONNECTED    18883  
unix    2      [ ]               DGRAM          CONNECTED    15065  
  
$ nslookup www.google.com  
Server:      172.16.52.1  
Address:     172.16.52.1#53  
  
Non-authoritative answer:  
Name:   www.google.com  
Address: 142.250.182.4  
Name:   www.google.com  
Address: 2404:6800:4007:819::2004
```

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```
(student@kali)-[~]
$ ping www.google.com
PING www.google.com (142.250.182.4) 56(84) bytes of data.
64 bytes from maa05s18-in-f4.1e100.net (142.250.182.4): icmp_seq=1 ttl=120 time=3.47 ms
64 bytes from maa05s18-in-f4.1e100.net (142.250.182.4): icmp_seq=2 ttl=120 time=3.93 ms
64 bytes from maa05s18-in-f4.1e100.net (142.250.182.4): icmp_seq=3 ttl=120 time=3.77 ms
64 bytes from maa05s18-in-f4.1e100.net (142.250.182.4): icmp_seq=4 ttl=120 time=3.57 ms
64 bytes from maa05s18-in-f4.1e100.net (142.250.182.4): icmp_seq=5 ttl=120 time=3.67 ms
64 bytes from maa05s18-in-f4.1e100.net (142.250.182.4): icmp_seq=6 ttl=120 time=3.55 ms
64 bytes from maa05s18-in-f4.1e100.net (142.250.182.4): icmp_seq=7 ttl=120 time=3.68 ms
64 bytes from maa05s18-in-f4.1e100.net (142.250.182.4): icmp_seq=8 ttl=120 time=3.94 ms
^C
--- www.google.com ping statistics ---
8 packets transmitted, 8 received, 0% packet loss, time 7013ms
rtt min/avg/max/mdev = 3.468/3.696/3.939/0.161 ms

(student@kali)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 172.16.52.152 netmask 255.255.252.0 broadcast 172.16.55.255
    inet6 fe80::8aae:ddff:fe15:db24 prefixlen 64 scopeid 0x20<link>
    ether 88:ae:dd:15:db:24 txqueuelen 1000 (Ethernet)
    RX packets 100941 bytes 67340498 (64.2 MiB)
    RX errors 0 dropped 2214 overruns 0 frame 0
    TX packets 38235 bytes 10458587 (9.9 MiB)
    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 25 bytes 1520 (1.4 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 25 bytes 1520 (1.4 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

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The screenshot shows a Kali Linux desktop environment. In the foreground, a window titled "MyTraceroute" is open. It has a dark theme and a header bar with "Apps" and "Places" menus. The main area shows the hostname "google.com" and a speed of "1.00". Below this is a table of network statistics. The table has columns: Hostname, Loss, Snt, Last, Avg, Best, Worst, and StDev. The data rows show the path from the gateway to google.com, including intermediate hops like static-41.229.249.49-tataidc.co.in and 142.250.171.162. All loss percentages are 0.0%.

Hostname	Loss	Snt	Last	Avg	Best	Worst	StDev
_gateway	0.0%	29	0	0	0	1	0.27
static-41.229.249.49-tataidc.co.in	0.0%	29	77	10	2	83	23.12
142.250.171.162	0.0%	29	2	3	2	14	2.83
142.251.227.217	0.0%	29	4	9	3	51	11.89
142.251.55.223	0.0%	28	2	3	2	14	2.29
maa05s24-in-f14.1e100.net	0.0%	28	3	4	2	18	3.50

Below the MyTraceroute window, a terminal window is open. It shows the command `sudo apt install mtr-tiny` being executed. The output indicates that mtr is being installed. The terminal also shows the command `mtr google.com` being entered.

```
student@kali:~$ sudo apt install mtr-tiny
$ sudo apt install mtr
Installing:
mtr

Summary:
Upgrading: 0, Installing: 1, Removing: 0, Not Upgrading: 885
Download size: 83.4 kB
Space needed: 215 kB / 111 GB available

Get:1 http://http.kali.org/kali kali-rolling/main amd64 mtr amd64 0.95-1.1+b1 [83.4 kB]
Fetched 83.4 kB in 1s (125 kB/s)
Selecting previously unselected package mtr.
(Reading database ... 498213 files and directories currently installed.)
Preparing to unpack .../mtr_0.95-1.1+b1_amd64.deb ...
Unpacking mtr (0.95-1.1+b1) ...
Setting up mtr (0.95-1.1+b1) ...
Processing triggers for man-db (2.12.1-1) ...
Processing triggers for kali-menu (2023.4.7) ...

student@kali:~$
$ mtr google.com
```


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```
(student@kali)-[~]
$ ip address show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
   link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
   inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
   inet6 ::1/128 scope host noprefixroute
       valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
   link/ether 88:ae:dd:15:db:24 brd ff:ff:ff:ff:ff:ff
   inet 172.16.52.152/22 brd 172.16.55.255 scope global noprefixroute eth0
       valid_lft forever preferred_lft forever
   inet6 fe80::8aae:ddff:fe15:db24/64 scope link noprefixroute
       valid_lft forever preferred_lft forever

(student@kali)-[~]
$
```