

Memtest

memtest is an program it is used to check faults in ram. read the data, write memory address patterns, check the errors.

Installing memtester

```
sathish@dark:~$ sudo apt install memtester
```

```
[sudo] password for sathish:
```

```
Reading package lists... Done
```

```
Building dependency tree... Done
```

```
Reading state information... Done
```

```
The following NEW packages will be installed:
```

```
  memtester
```

```
0 upgraded, 1 newly installed, 0 to remove and 265 not upgraded.
```

```
Need to get 17.6 kB of archives.
```

```
After this operation, 54.3 kB of additional disk space will be used.
```

```
Get:1 http://in.archive.ubuntu.com/ubuntu jammy/universe amd64 memtester amd64  
4.5.1-1 [17.6 kB]
```

```
Fetchd 17.6 kB in 1s (14.0 kB/s)
```

```
Selecting previously unselected package memtester.
```

```
(Reading database ... 159906 files and directories currently installed.)
```

```
Preparing to unpack .../memtester_4.5.1-1_amd64.deb ...
```

```
Unpacking memtester (4.5.1-1) ...
```

```
Setting up memtester (4.5.1-1) ...
```

```
Processing triggers for man-db (2.10.2-1) ...
```

allocate ram size and iteration to check

```
sathish@dark:~$ sudo memtester 20M 1
```

```
memtester version 4.5.1 (64-bit)
```

```
Copyright (C) 2001-2020 Charles Cazabon.
```

```
Licensed under the GNU General Public License version 2 (only).
```

```
pagesize is 4096
```

pagesizemask is 0xffffffffffff000

want 20MB (20971520 bytes)

got 20MB (20971520 bytes), trying mlock ...locked.

Loop 1/1:

Stuck Address : ok

Random Value : ok

Compare XOR : ok

Compare SUB : ok

Compare MUL : ok

Compare DIV : ok

Compare OR : ok

Compare AND : ok

Sequential Increment: ok

Solid Bits : ok

Block Sequential : ok

Checkerboard : ok

Bit Spread : ok

Bit Flip : ok

Walking Ones : ok

Walking Zeroes : ok

8-bit Writes : ok

16-bit Writes : ok

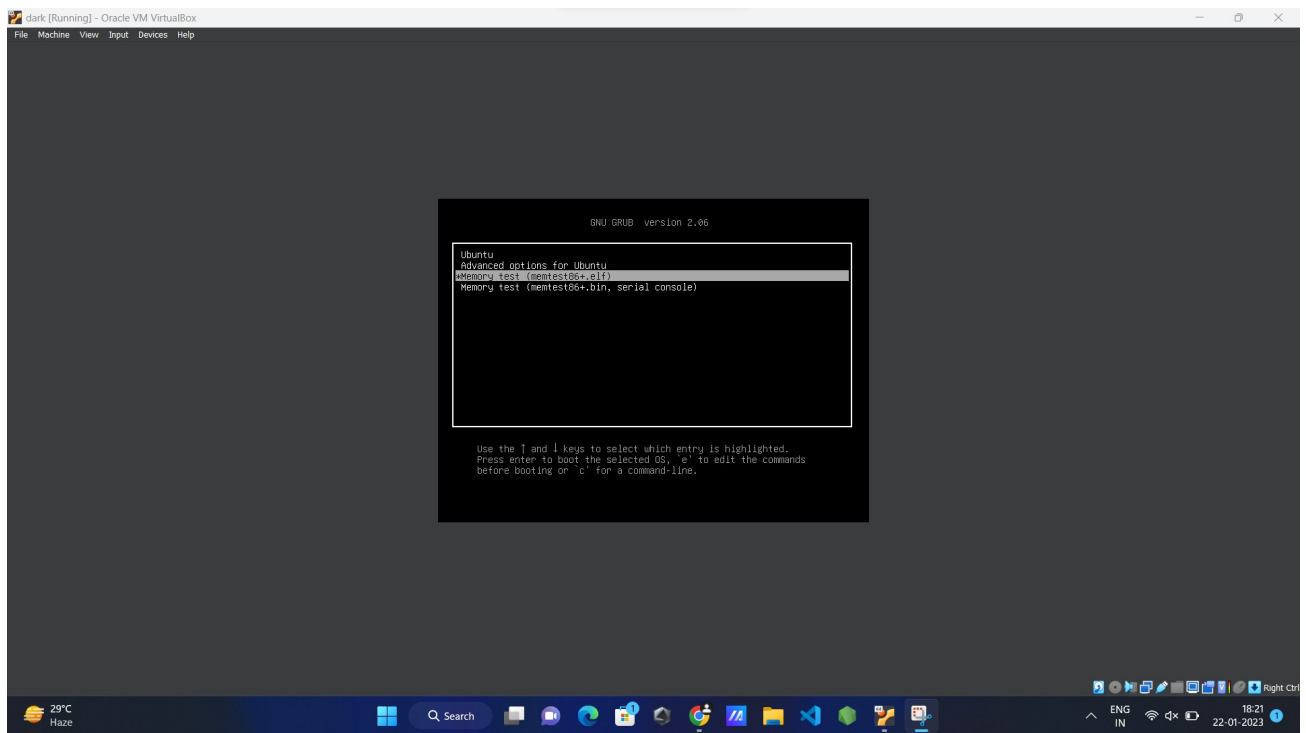
Done.

sathish@dark:~\$

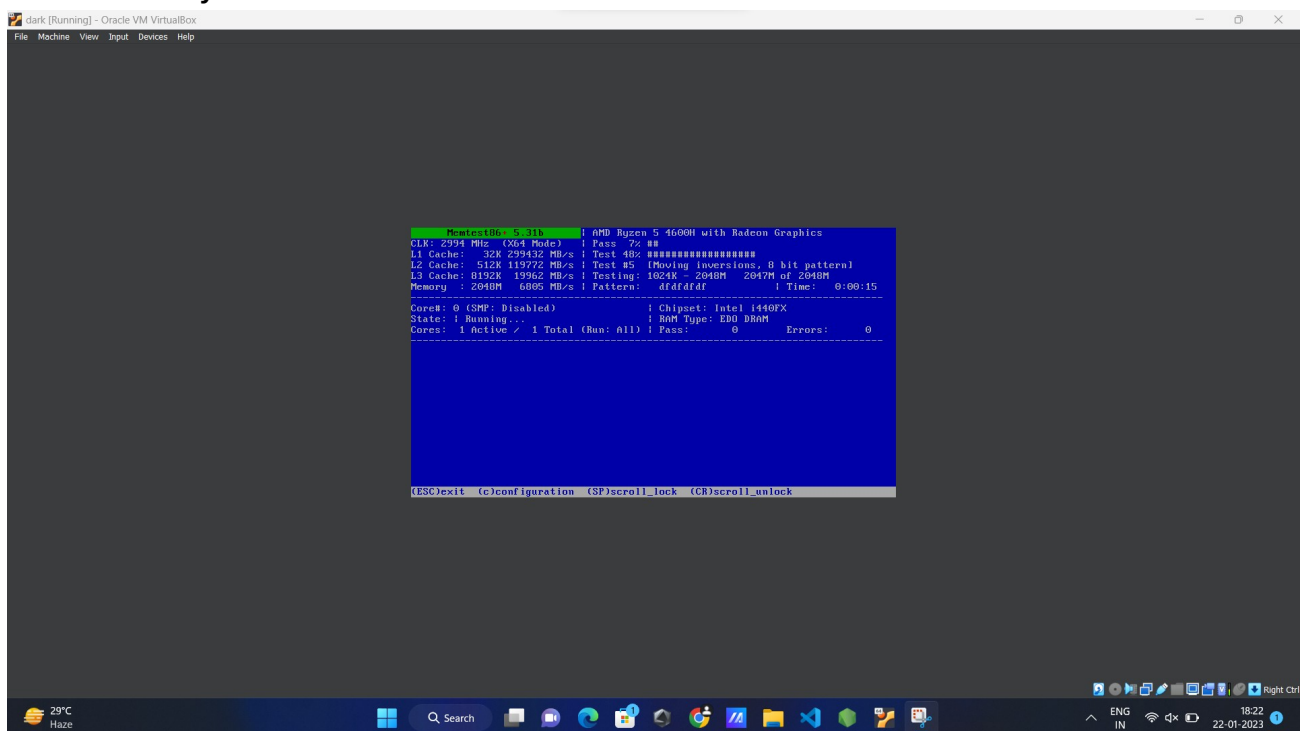
memtest86+

memtest86+ is used to test fault in memory using grub menu

power on or restart press shift long to open grub menu



select memory test to start test



want leave press esc

mprime

mprime is an stress testing program it can test cpu how cpu handle

Download mprime

```
sathish@dark:~/mprime-test$ wget
https://www.mersenne.org/download/software/v30/30.8/p95v308b17.linux64.tar.gz
--2023-01-22 21:52:12--
https://www.mersenne.org/download/software/v30/30.8/p95v308b17.linux64.tar.gz
Resolving www.mersenne.org (www.mersenne.org)... 162.212.57.131
Connecting to www.mersenne.org (www.mersenne.org)|162.212.57.131|:443...
connected.
HTTP request sent, awaiting response... 200 OK
Length: 7222132 (6.9M) [application/x-gzip]
Saving to: 'p95v308b17.linux64.tar.gz'

p95v308b17.linux64. 100%[=====>]    6.89M   380KB/s   in 22s

2023-01-22 21:52:37 (316 KB/s) - 'p95v308b17.linux64.tar.gz' saved
[7222132/7222132]
```

extracting mprime

```
sathish@dark:~/mprime-test$ ls
p95v308b17.linux64.tar.gz
sathish@dark:~/mprime-test$ tar -xvf p95v308b17.linux64.tar.gz
libgmp.so
libgmp.so.10
libgmp.so.10.4.1
license.txt
mprime
readme.txt
stress.txt
undoc.txt
whatsnew.txt
sathish@dark:~/mprime-test$ ls
libgmp.so          license.txt        readme.txt  whatsnew.txt
libgmp.so.10      mprime            stress.txt
```

libgmp.so.10.4.1 p95v308b17.linux64.tar.gz undoc.txt

running mprime

```
sathish@dark:~/mprime-test$ ./mprime
```

Welcome to GIMPS, the hunt for huge prime numbers. You will be asked a few simple questions and then the program will contact the primenet server to get some work for your computer. Good luck!

Attention OVERCLOCKERS!! Mprime has gained a reputation as a useful stress testing tool for people that enjoy pushing their hardware to the limit. You are more than welcome to use this software for that purpose. Please select the stress testing choice below to avoid interfering with the PrimeNet server. Use the Options/Torture Test menu choice for your stress tests. Also, read the stress.txt file.

If you want to both join GIMPS and run stress tests, then Join GIMPS and answer the questions. After the server gets some work for you, stop mprime, then run mprime -m and choose Options/Torture Test.

Without Joining Just Testing

Join Gimps? (Y=Yes, N=Just stress testing) (Y): n

Number of cores to torture test (2): 1

Choose a type of torture test to run.

- 1 = Smallest FFTs (tests L1/L2 caches, high power/heat/CPU stress).
- 2 = Small FFTs (tests L1/L2/L3 caches, maximum power/heat/CPU stress).
- 3 = Large FFTs (stresses memory controller and RAM).
- 4 = Blend (tests all of the above).

Blend is the default. NOTE: if you fail the blend test but pass the smaller FFT tests then your problem is likely bad memory or bad memory controller.

Type of torture test to run (4): 2

Customize settings (N): n

Run a weaker torture test (not recommended) (N): n

Accept the answers above? (Y): y

started checking..

[Main thread Jan 22 21:54] Starting worker.

[Work thread Jan 22 21:54] Worker starting

[Work thread Jan 22 21:54] Beginning a continuous torture test on your computer.

[Work thread Jan 22 21:54] Please read stress.txt. Hit ^C to end this test.

[Work thread Jan 22 21:54] Test 1, 220000 Lucas-Lehmer in-place iterations of M1633941 using AVX FFT length 80K, Pass1=320, Pass2=256, clm=1.

[Work thread Jan 22 21:55] Test 2, 220000 Lucas-Lehmer in-place iterations of M1611557 using AVX FFT length 80K, Pass1=320, Pass2=256, clm=1.

[Work thread Jan 22 21:56] Test 3, 220000 Lucas-Lehmer in-place iterations of M1599549 using AVX FFT length 80K, Pass1=320, Pass2=256, clm=1.

[Work thread Jan 22 21:57] Self-test 80K passed!

[Work thread Jan 22 21:57] Test 1, 180000 Lucas-Lehmer in-place iterations of M1699779 using AVX FFT length 84K, Pass1=448, Pass2=192, clm=1.

[Work thread Jan 22 21:57] Test 2, 180000 Lucas-Lehmer in-place iterations of M1677323 using AVX FFT length 84K, Pass1=448, Pass2=192, clm=1.

[Work thread Jan 22 21:58] Test 3, 220000 Lucas-Lehmer in-place iterations of M1633941 using AVX FFT length 84K, Pass1=448, Pass2=192, clm=1.

^C[Main thread Jan 22 21:58] Stopping all worker windows.

[Work thread Jan 22 21:58] Torture Test completed 5 tests in 4 minutes - 0 errors, 0 warnings.

[Work thread Jan 22 21:58] Worker stopped.

[Main thread Jan 22 21:58] Execution halted.

Menu for mprime

Main Menu

1. Test/Primenet
2. Test/Workers
3. Test/Status
4. Test/Continue
5. Test/Exit
6. Advanced/Test
7. Advanced/Time
8. Advanced/P-1
9. Advanced/ECM
10. Advanced/Manual Communication
11. Advanced/Unreserve Exponent
12. Advanced/Quit Gimps
13. Options/CPU
14. Options/Resource Limits
15. Options/Preferences
16. Options/Torture Test
17. Options/Benchmark
18. Help/About
19. Help/About PrimeNet Server

Your choice:

check Power supply state motherboard (vm not showing full details)

```
sathish@dark:~/mprime-test$ sudo dmidecode |grep -B 2 Stat
```

```
Serial Number: Not Specified
```

```
Asset Tag: Not Specified
```

```
Boot-up State: Safe
```

```
Power Supply State: Safe
```

```
Thermal State: Safe
```

```
Security Status: None
```

```
sathish@dark:~/mprime-test$
```

Smart Status of Hdd using smartmontools

```
sathish@dark:/$ sudo apt install smartmontools
```

```
Reading package lists... Done
```

```
Building dependency tree... Done
```

```
Reading state information... Done
```

```
Suggested packages:
```

```
  gsmartcontrol smart-notifier mailx | mailutils
```

```
The following NEW packages will be installed:
```

```
  smartmontools
```

```
0 upgraded, 1 newly installed, 0 to remove and 264 not upgraded.
```

```
Need to get 583 kB of archives.
```

```
After this operation, 1,980 kB of additional disk space will be used.
```

```
Get:1 http://in.archive.ubuntu.com/ubuntu jammy/main amd64 smartmontools amd64  
7.2-1build2 [583 kB]
```

```
Fetched 583 kB in 3s (173 kB/s)
```

```
Selecting previously unselected package smartmontools.
```

```
(Reading database ... 159914 files and directories currently installed.)
```

```
Preparing to unpack .../smartmontools_7.2-1build2_amd64.deb ...
```

```
Unpacking smartmontools (7.2-1build2) ...
```

```
Setting up smartmontools (7.2-1build2) ...
```

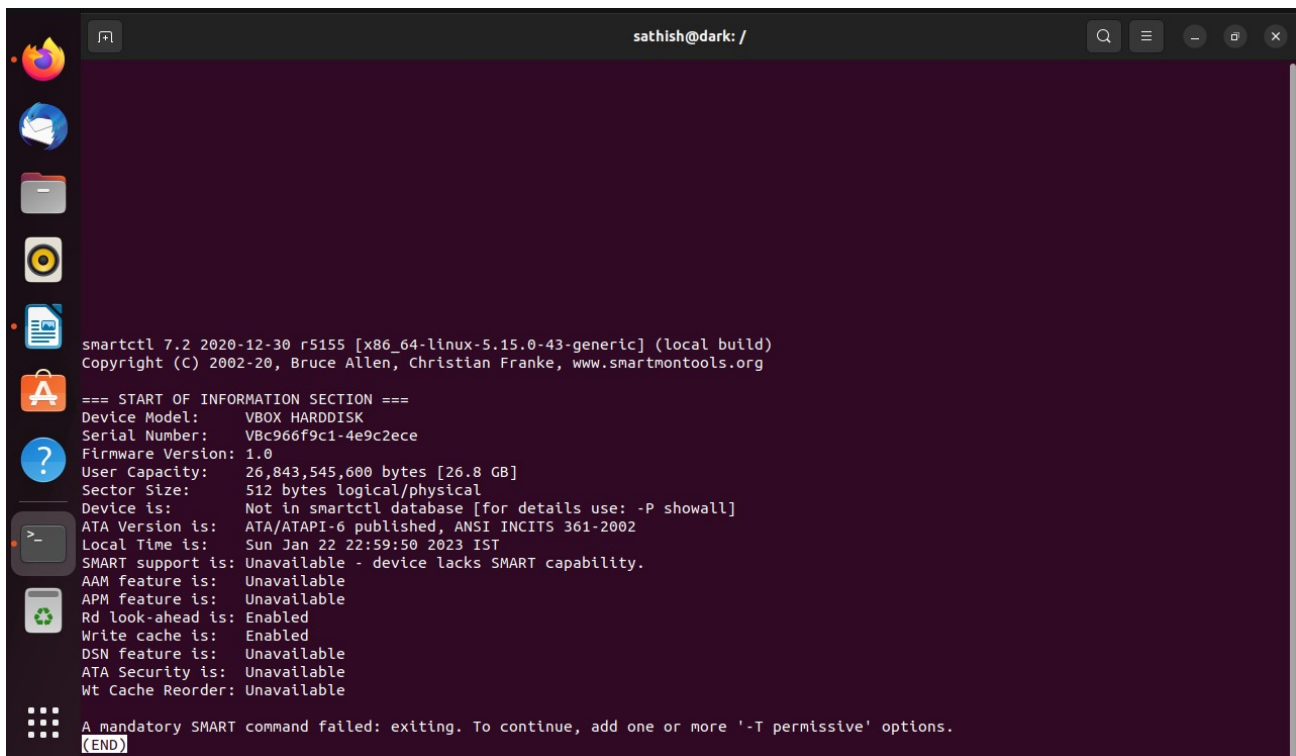
```
Created symlink /etc/systemd/system/smartd.service → /lib/systemd/system/smartmo  
ntools.service.
```

```
Created symlink /etc/systemd/system/multi-user.target.wants/smartmontools.servic  
e → /lib/systemd/system/smartmontools.service.
```

```
Processing triggers for man-db (2.10.2-1) ...
```

checking hdd command

```
sudo smartctl /dev/sda3 -x | less
```


A terminal window titled 'sathish@dark: /' with a dark purple background. The left sidebar shows various application icons. The terminal output displays the version and copyright information for smartctl 7.2, followed by a 'START OF INFORMATION SECTION' for a VBOX HARDISK. It lists various attributes like Device Model, Serial Number, Firmware Version, User Capacity, Sector Size, and SMART support status. At the bottom, it states 'A mandatory SMART command failed: exiting. To continue, add one or more '-T permissive' options.' and '(END)'.

```
sathish@dark: /  
  
smartctl 7.2 2020-12-30 r5155 [x86_64-linux-5.15.0-43-generic] (local build)  
Copyright (C) 2002-20, Bruce Allen, Christian Franke, www.smartmontools.org  
  
=== START OF INFORMATION SECTION ===  
Device Model:          VBOX HARDISK  
Serial Number:         VbC966f9c1-4e9c2ece  
Firmware Version:      1.0  
User Capacity:         26,843,545,600 bytes [26.8 GB]  
Sector Size:           512 bytes logical/physical  
Device is:             Not in smartctl database [for details use: -P showall]  
ATA Version is:        ATA/ATAPI-6 published, ANSI INCITS 361-2002  
Local Time is:         Sun Jan 22 22:59:50 2023 IST  
SMART support is:      Unavailable - device lacks SMART capability.  
AAM feature is:        Unavailable  
APM feature is:        Unavailable  
Rd look-ahead is:      Enabled  
Write cache is:        Enabled  
DSN feature is:        Unavailable  
ATA Security is:       Unavailable  
Wt Cache Reorder:      Unavailable  
  
A mandatory SMART command failed: exiting. To continue, add one or more '-T permissive' options.  
(END)
```

Networking Basics

ifconfig (view network interface)

```
sathish@dark:/$ sudo apt install net-tools
```

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

The following NEW packages will be installed:

net-tools

0 upgraded, 1 newly installed, 0 to remove and 264 not upgraded.

Need to get 204 kB of archives.

After this operation, 819 kB of additional disk space will be used.

Get:1 http://in.archive.ubuntu.com/ubuntu jammy/main amd64 net-tools amd64

1.60+git20181103.0eebece-1ubuntu5 [204 kB]

Fetched 204 kB in 2s (85.1 kB/s)

Selecting previously unselected package net-tools.

(Reading database ... 159959 files and directories currently installed.)

```
Preparing to unpack .../net-tools_1.60+git20181103.0eebece-1ubuntu5_amd64.deb ...
Unpacking net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Setting up net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Processing triggers for man-db (2.10.2-1) ...
```

inet is an ip address

```
sathish@dark:/$ ifconfig
```

```
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::c9fa:550f:a25d:7a0d prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:32:24:3a txqueuelen 1000 (Ethernet)
    RX packets 104536 bytes 74390751 (74.3 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 76296 bytes 16542261 (16.5 MB)
    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 25880 bytes 2909820 (2.9 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 25880 bytes 2909820 (2.9 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

Down interface

```
sathish@dark:/$ sudo ifconfig enp0s3 down
```

```
sathish@dark:/$ ifconfig
```

```
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 31920 bytes 3673302 (3.6 MB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 31920 bytes 3673302 (3.6 MB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

up intework interface

```
sathish@dark:/$ sudo ifconfig enp0s3 up
```

```
sathish@dark:/$ ifconfig
```

```
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::c9fa:550f:a25d:7a0d prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:32:24:3a txqueuelen 1000 (Ethernet)
    RX packets 121961 bytes 83912643 (83.9 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 90683 bytes 19710113 (19.7 MB)
    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 32350 bytes 3704893 (3.7 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 32350 bytes 3704893 (3.7 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
sathish@dark:/$
```

Ping Testing

```
sathish@dark:/$ ping tnlinks.in
```

PING tnlinks.in (103.170.132.153) 56(84) bytes of data.

64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=1 ttl=49 time=85.7 ms

64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=2 ttl=49 time=250 ms

64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=3 ttl=49 time=95.2 ms

64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=4 ttl=49 time=72.3 ms

64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=5 ttl=49 time=71.4 ms

64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=6 ttl=49 time=68.7 ms

64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=7 ttl=49 time=101 ms

64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=8 ttl=49 time=74.5 ms

^C

--- tnlinks.in ping statistics ---

8 packets transmitted, 8 received, 0% packet loss, time 7033ms

rtt min/avg/max/mdev = 68.686/102.301/250.112/56.941 ms

sathish@dark:/\$

ping Ipv4/Ipv6 use -4 , -6

sathish@dark:/\$ ping -4 103.170.132.153

PING 103.170.132.153 (103.170.132.153) 56(84) bytes of data.

64 bytes from 103.170.132.153: icmp_seq=1 ttl=49 time=192 ms

64 bytes from 103.170.132.153: icmp_seq=2 ttl=49 time=73.3 ms

64 bytes from 103.170.132.153: icmp_seq=3 ttl=49 time=65.5 ms

64 bytes from 103.170.132.153: icmp_seq=4 ttl=49 time=238 ms

64 bytes from 103.170.132.153: icmp_seq=5 ttl=49 time=67.0 ms

^C

--- 103.170.132.153 ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 4009ms

rtt min/avg/max/mdev = 65.487/127.072/237.632/73.085 ms

interval between check ping

sathish@dark:/\$ ping -i 1 trockerz.in

PING trockerz.in (103.170.132.153) 56(84) bytes of data.

64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=1 ttl=49 time=63.3 ms

```
64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=2 ttl=49 time=63.0 ms
64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=3 ttl=49 time=92.3 ms
64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=4 ttl=49 time=281 ms
64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=5 ttl=49 time=81.1 ms
64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=6 ttl=49 time=67.1 ms
64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=7 ttl=49 time=110 ms
64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=8 ttl=49 time=69.0 ms
^C
```

```
--- trockerz.in ping statistics ---
```

```
8 packets transmitted, 8 received, 0% packet loss, time 7146ms
```

```
rtt min/avg/max/mdev = 62.960/103.284/280.902/68.845 ms
```

no of packets limit to checksathish@dark:/\$ ping -c 3 trockerz.in

```
PING trockerz.in (103.170.132.153) 56(84) bytes of data.
```

```
64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=1 ttl=49 time=60.8 ms
```

```
64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=2 ttl=49 time=58.7 ms
```

```
64 bytes from 103.170.132.153 (103.170.132.153): icmp_seq=3 ttl=49 time=70.2 ms
```

```
--- trockerz.in ping statistics ---
```

```
3 packets transmitted, 3 received, 0% packet loss, time 2432ms
```

```
rtt min/avg/max/mdev = 58.655/63.218/70.192/5.008 ms
```

without packets to check ping

```
sathish@dark:~$ ping -q trockerz.in
```

```
PING trockerz.in (103.170.132.153) 56(84) bytes of data.
```

```
^C
```

```
--- trockerz.in ping statistics ---
```

```
5 packets transmitted, 5 received, 0% packet loss, time 4080ms
```

```
rtt min/avg/max/mdev = 60.037/87.237/139.831/28.394 ms
```

Links (open links in terminal view html page)sathish@dark:~\$ sudo apt-get
install links

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

The following additional packages will be installed:

liblz1

Suggested packages:

mc

The following NEW packages will be installed:

liblz1 links

0 upgraded, 2 newly installed, 0 to remove and 264 not upgraded.

Need to get 792 kB of archives.

After this operation, 2,468 kB of additional disk space will be used.

Do you want to continue? [Y/n] y

Get:1 [http://in.archive.ubuntu.com/ubuntu/jammy/universe amd64 liblz1](http://in.archive.ubuntu.com/ubuntu/jammy/universe/amd64/liblz1)

amd64 1.13-1 [37.6 kB]

Get:2 [http://in.archive.ubuntu.com/ubuntu/jammy/universe amd64 links](http://in.archive.ubuntu.com/ubuntu/jammy/universe/amd64/links)

amd64 2.25-1build1 [754 kB]

Fetched 792 kB in 2s (332 kB/s)

Selecting previously unselected package liblz1:amd64.

(Reading database ... 160008 files and directories currently installed.)

Preparing to unpack .../liblz1_1.13-1_amd64.deb ...

Unpacking liblz1:amd64 (1.13-1) ...

Selecting previously unselected package links.

Preparing to unpack .../links_2.25-1build1_amd64.deb ...

Unpacking links (2.25-1build1) ...

Setting up liblz1:amd64 (1.13-1) ...

Setting up links (2.25-1build1) ...

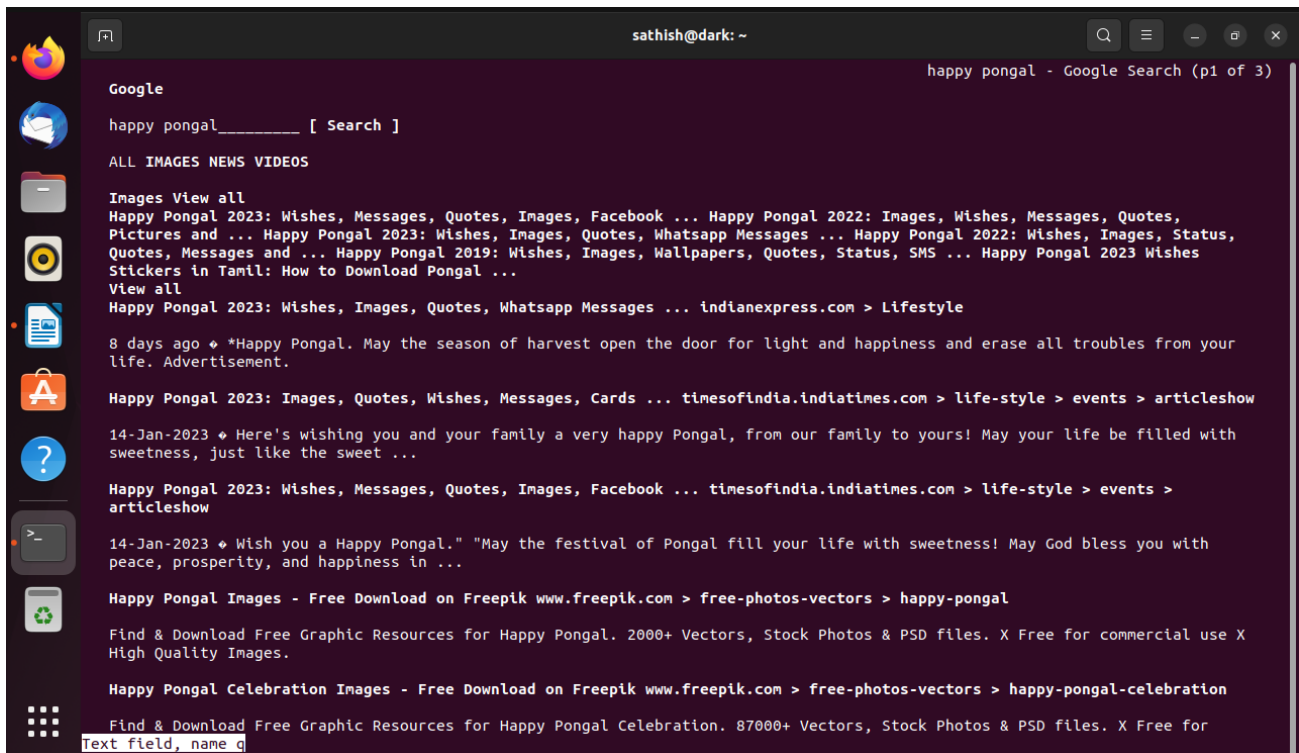
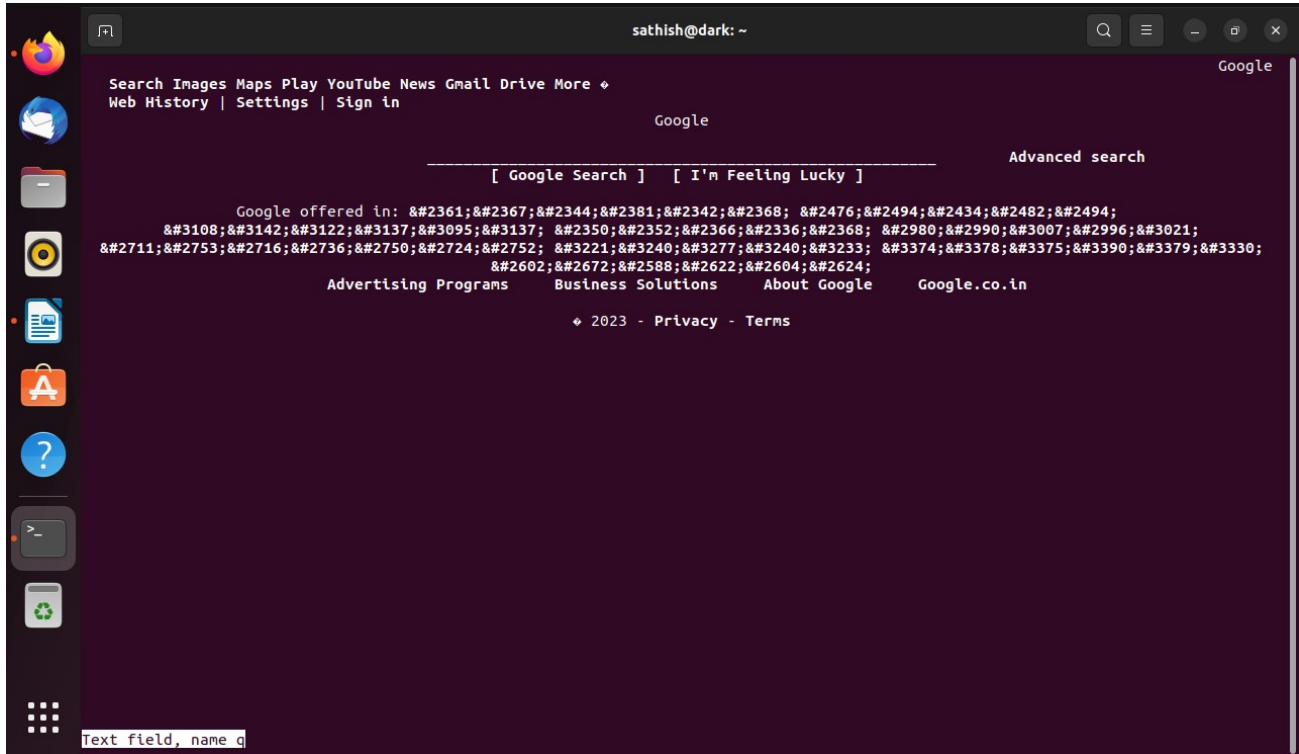
Processing triggers for mailcap (3.70+nmu1ubuntu1) ...

Processing triggers for libc-bin (2.35-0ubuntu3.1) ...

```
Processing triggers for man-db (2.10.2-1) ...
```

view links

```
sathish@dark:~$ links google.com
```



DHCLIENT (DHCP) - release , renew ip

inet ip

sathish@dark:~\$ ifconfig

```
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::c9fa:550f:a25d:7a0d prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:32:24:3a txqueuelen 1000 (Ethernet)
    RX packets 3220 bytes 2482710 (2.4 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2113 bytes 399146 (399.1 KB)
    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 725 bytes 79203 (79.2 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 725 bytes 79203 (79.2 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

sathish@dark:~\$ sudo dhclient -r enp0s3

sathish@dark:~\$ ifconfig

```
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet6 fe80::c9fa:550f:a25d:7a0d prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:32:24:3a txqueuelen 1000 (Ethernet)
    RX packets 3826 bytes 2974231 (2.9 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2508 bytes 516103 (516.1 KB)
    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 841 bytes 89598 (89.5 KB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 841 bytes 89598 (89.5 KB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
sathish@dark:~$ sudo dhclient -v enp0s3
```

```
Internet Systems Consortium DHCP Client 4.4.1
```

```
Copyright 2004-2018 Internet Systems Consortium.
```

```
All rights reserved.
```

```
For info, please visit https://www.isc.org/software/dhcp/
```

```
Listening on LPF/enp0s3/08:00:27:32:24:3a
```

```
Sending on LPF/enp0s3/08:00:27:32:24:3a
```

```
Sending on Socket/fallback
```

```
DHCPDISCOVER on enp0s3 to 255.255.255.255 port 67 interval 3 (xid=0x5562b45a)
```

```
DHCPOFFER of 10.0.2.15 from 10.0.2.2
```

```
DHCPREQUEST for 10.0.2.15 on enp0s3 to 255.255.255.255 port 67 (xid=0x5ab46255)
```

```
DHCPACK of 10.0.2.15 from 10.0.2.2 (xid=0x5562b45a)
```

```
bound to 10.0.2.15 -- renewal in 32688 seconds.
```

```
sathish@dark:~$ ifconfig
```

```
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
```

```
inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
```

```
inet6 fe80::c9fa:550f:a25d:7a0d prefixlen 64 scopeid 0x20<link>
```

```
ether 08:00:27:32:24:3a txqueuelen 1000 (Ethernet)
```

```
RX packets 3926 bytes 2995732 (2.9 MB)
```

```
RX errors 0 dropped 0 overruns 0 frame 0
```

```
TX packets 2707 bytes 537941 (537.9 KB)
```

```
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 1124 bytes 114420 (114.4 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1124 bytes 114420 (114.4 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

sathish@dark:~\$

Hostname

set hostname

sathish@black:~\$ sudo nano /etc/hostname



set hostname in command

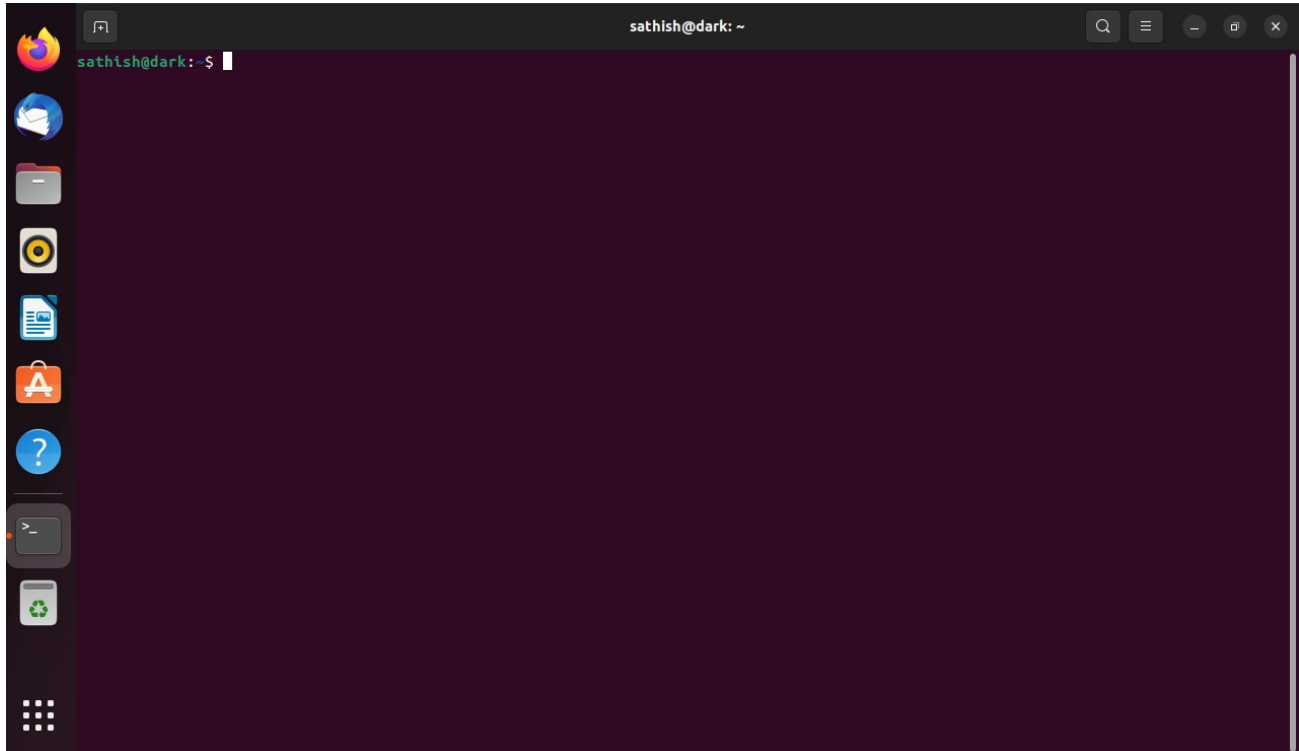
sathish@black:~\$ sudo hostname dark

check hostname

```
sathish@black:~$ sudo hostname
```

```
dark
```

hostname changed after restart os



ARP (view gateway ip)

```
sathish@dark:~$ arp -a
```

```
_gateway (10.0.2.2) at 52:54:00:12:35:02 [ether] on enp0s3
```

```
sathish@dark:~$ ping 10.0.2.2
```

```
PING 10.0.2.2 (10.0.2.2) 56(84) bytes of data.
```

```
64 bytes from 10.0.2.2: icmp_seq=1 ttl=64 time=0.883 ms
```

```
64 bytes from 10.0.2.2: icmp_seq=2 ttl=64 time=0.882 ms
```

```
64 bytes from 10.0.2.2: icmp_seq=3 ttl=64 time=0.926 ms
```

```
^C
```

```
--- 10.0.2.2 ping statistics ---
```

```
3 packets transmitted, 3 received, 0% packet loss, time 2002ms
```

```
rtt min/avg/max/mdev = 0.882/0.897/0.926/0.020 ms
```

```
sathish@dark:~$
```

list network connection information enable or disable

```
sathish@dark:~$ sudo lshw -C network
```

```
[sudo] password for sathish:
```

```
*-network
```

```
description: Ethernet interface
```

```
product: 82540EM Gigabit Ethernet Controller
```

```
vendor: Intel Corporation
```

```
physical id: 3
```

```
bus info: pci@0000:00:03.0
```

```
logical name: enp0s3
```

```
version: 02
```

```
serial: 08:00:27:32:24:3a
```

```
size: 1Gbit/s
```

```
capacity: 1Gbit/s
```

```
width: 32 bits
```

```
clock: 66MHz
```

```
capabilities: pm pcix bus_master cap_list ethernet physical tp 10bt 10bt-  
fd 100bt 100bt-fd 1000bt-fd autonegotiation
```

```
configuration: autonegotiation=on broadcast=yes driver=e1000
```

```
driverversion=5.15.0-43-generic duplex=full ip=10.0.2.15 latency=64 link=yes  
mingnt=255 multicast=yes port=twisted pair speed=1Gbit/s
```

```
resources: irq:19 memory:f0200000-f021ffff ioport:d020(size=8)
```

```
sathish@dark:~$ sudo ifconfig enp0s3 down
```

```
sathish@dark:~$ sudo lshw -C network
```

```
*-network DISABLED
```

```
description: Ethernet interface
```

```
product: 82540EM Gigabit Ethernet Controller
```

```
vendor: Intel Corporation
```

```
physical id: 3
```

```
bus info: pci@0000:00:03.0
```

```
logical name: enp0s3
```

```
version: 02
```

```
serial: 08:00:27:32:24:3a
size: 1Gbit/s
capacity: 1Gbit/s
width: 32 bits
clock: 66MHz
capabilities: pm pcix bus_master cap_list ethernet physical tp 10bt 10bt-
fd 100bt 100bt-fd 1000bt-fd autonegotiation
configuration: autonegotiation=on broadcast=yes driver=e1000
driverversion=5.15.0-43-generic duplex=full latency=64 link=no mingnt=255
multicast=yes port=twisted pair speed=1Gbit/s
resources: irq:19 memory:f0200000-f021ffff ioport:d020(size=8)
sathish@dark:~$ sudo ifconfig enp0s3 up
sathish@dark:~$ sudo lshw -C network
*-network
description: Ethernet interface
product: 82540EM Gigabit Ethernet Controller
vendor: Intel Corporation
physical id: 3
bus info: pci@0000:00:03.0
logical name: enp0s3
version: 02
serial: 08:00:27:32:24:3a
size: 1Gbit/s
capacity: 1Gbit/s
width: 32 bits
clock: 66MHz
capabilities: pm pcix bus_master cap_list ethernet physical tp 10bt 10bt-
fd 100bt 100bt-fd 1000bt-fd autonegotiation
configuration: autonegotiation=on broadcast=yes driver=e1000
driverversion=5.15.0-43-generic duplex=full ip=10.0.2.15 latency=64 link=yes
mingnt=255 multicast=yes port=twisted pair speed=1Gbit/s
resources: irq:19 memory:f0200000-f021ffff ioport:d020(size=8)
```

sathish@dark:~\$

speed test

sathish@dark:~\$ sudo apt install speedtest-cli

[sudo] password for sathish:

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

speedtest-cli is already the newest version (2.1.3-2).

0 upgraded, 0 newly installed, 0 to remove and 264 not upgraded.

sathish@dark:~\$ speedtest

Retrieving speedtest.net configuration...

Testing from Airtel Broadband (122.173.244.13)...

Retrieving speedtest.net server list...

Selecting best server based on ping...

Hosted by Jio (Bangalore) [285.99 km]: 54.765 ms

Testing download

speed.....

.....

Download: 27.94 Mbit/s

Testing upload

speed.....

.....

Upload: 55.71 Mbit/s

speed test simple

sathish@dark:~\$ speedtest --simple

Ping: 35.242 ms

Download: 22.08 Mbit/s

Upload: 46.73 Mbit/s

sathish@dark:~\$

