

1.Get me the IP address of a particular domain (guvi.in)

```
ubuntu@ip-172-31-30-187:~$ ping guvi.in
PING guvi.in (104.26.4.88) 56(84) bytes of data.
64 bytes from 104.26.4.88: icmp_seq=1 ttl=58 time=4.05 ms
64 bytes from 104.26.4.88: icmp_seq=2 ttl=58 time=4.01 ms
64 bytes from 104.26.4.88: icmp_seq=3 ttl=58 time=3.98 ms
64 bytes from 104.26.4.88: icmp_seq=4 ttl=58 time=4.11 ms
64 bytes from 104.26.4.88: icmp_seq=5 ttl=58 time=4.00 ms
64 bytes from 104.26.4.88: icmp_seq=6 ttl=58 time=3.99 ms
64 bytes from 104.26.4.88: icmp_seq=7 ttl=58 time=4.04 ms
^C
--- guvi.in ping statistics ---
7 packets transmitted, 7 received, 0% packet loss, time 6008ms
rtt min/avg/max/mdev = 3.977/4.022/4.105/0.040 ms
ubuntu@ip-172-31-30-187:~$ host guvi.in
guvi.in has address 172.67.70.207
guvi.in has address 104.26.4.88
guvi.in has address 104.26.5.88
guvi.in has IPv6 address 2606:4700:20::ac43:46cf
guvi.in has IPv6 address 2606:4700:20::681a:558
guvi.in has IPv6 address 2606:4700:20::681a:458
guvi.in mail is handled by 5 alt1.aspmx.l.google.com.
guvi.in mail is handled by 5 alt2.aspmx.l.google.com.
guvi.in mail is handled by 1 aspmx.l.google.com.
guvi.in mail is handled by 10 alt3.aspmx.l.google.com.
guvi.in mail is handled by 10 alt4.aspmx.l.google.com.
guvi.in mail is handled by 10 mailstore1.secureserver.net.
guvi.in mail is handled by 20 smtp.secureserver.net.
ubuntu@ip-172-31-30-187:~$ nslookup guvi.in
Server:      127.0.0.53
Address:     127.0.0.53#53

Non-authoritative answer:
Name:   guvi.in
Address: 104.26.5.88
Name:   guvi.in
Address: 104.26.4.88
Name:   guvi.in
Address: 172.67.70.207
Name:   guvi.in
Address: 2606:4700:20::681a:558
Name:   guvi.in
Address: 2606:4700:20::ac43:46cf
Name:   guvi.in
Address: 2606:4700:20::681a:458

ubuntu@ip-172-31-30-187:~$ |
```

2.How do I find my CPU/memory usage of my server

- Checking cpu and memory by using top command

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
129	root	19	-1	50424	14196	13172	S	0.3	1.5	0:00:59	systemd-journal
1049	root	20	0	12020	8076	7052	S	0.3	0.9	0:00:02	sshd
2214	ubuntu	20	0	12368	5784	3608	R	0.3	0.6	0:00:04	top
1	root	20	0	22636	13716	9620	S	0.0	1.5	0:02:75	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00:01	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00:00	pool_workqueue_release
4	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/R-rcu_gp
5	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/R-sync_wq
6	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/R-kvfree_rcu_reclaim
7	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/R-slab_flushwq
8	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/R-netns
10	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/0:OH-events_highpri
13	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/R-mm_percpu_wq
14	root	20	0	0	0	0	I	0.0	0.0	0:00:00	rcu_tasks_rude_kthread
15	root	20	0	0	0	0	I	0.0	0.0	0:00:00	rcu_tasks_trace_kthread
16	root	20	0	0	0	0	S	0.0	0.0	0:00:04	ksoftirqd/0
17	root	20	0	0	0	0	I	0.0	0.0	0:00:57	rcu_sched
18	root	20	0	0	0	0	S	0.0	0.0	0:00:00	rcu_exp_par_gp_kthread_worker/0
19	root	20	0	0	0	0	S	0.0	0.0	0:00:00	rcu_exp_gp_kthread_worker
20	root	rt	0	0	0	0	S	0.0	0.0	0:00:12	migration/0
21	root	-51	0	0	0	0	S	0.0	0.0	0:00:00	idle_inject/0
22	root	20	0	0	0	0	S	0.0	0.0	0:00:00	cpuhp/0
23	root	20	0	0	0	0	S	0.0	0.0	0:00:00	cpuhp/1
24	root	-51	0	0	0	0	S	0.0	0.0	0:00:00	idle_inject/1
25	root	rt	0	0	0	0	S	0.0	0.0	0:00:17	migration/1
26	root	20	0	0	0	0	S	0.0	0.0	0:00:03	ksoftirqd/1
28	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/1:OH-events_highpri
29	root	20	0	0	0	0	S	0.0	0.0	0:00:00	kdevtmpfs
30	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/R-inet_frag_wq
31	root	20	0	0	0	0	S	0.0	0.0	0:00:00	kauditid
32	root	20	0	0	0	0	S	0.0	0.0	0:00:00	khungtaskd
34	root	20	0	0	0	0	S	0.0	0.0	0:00:00	oom_reaper
36	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/R-writeback
37	root	20	0	0	0	0	S	0.0	0.0	0:01:03	kcompactd0
38	root	25	5	0	0	0	S	0.0	0.0	0:00:00	ksmd
39	root	39	19	0	0	0	S	0.0	0.0	0:00:00	khugepaged
40	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/R-kintegrityd
41	root	0	-20	0	0	0	I	0.0	0.0	0:00:00	kworker/R-kblockd

- Checking cpu by using htop

0[1[Mem[Swap[0.0% Tasks: 33, 40 thr. 76 kthr: 1 running						
1[Mem[Swap[0.0% Load average: 0.00 0.00 0.00						
				180M/914M] Uptime: 07:42:33						
				OK/[OK]						
Main	0.0%									
PID	USER	PRI	NR.	VIRT	RES	SHR	% CPU	% MEM	% TIME+	Command
2219	ubuntu	20	0	9396	13716	9623	0.0	0.0	0:00:08	httpd
129	root	20	0	22636	13716	9623	0.0	1.3	0:00:75	/sbin/init
187	root	20	0	2424	2080	6468	0.0	2.9	0:00:75	/sbin/multipathd -d -s
199	root	20	0	26484	8132	5060	0.0	0.9	0:00:24	/usr/lib/systemd/systemd-journald
200	root	20	0	282M	27080	6468	0.0	2.9	0:00:00	/sbin/multipathd -d -s
201	root	RT	0	282M	27080	6468	0.0	2.9	0:00:00	/sbin/multipathd -d -s
202	root	RT	0	282M	27080	6468	0.0	2.9	0:00:00	/sbin/multipathd -d -s
203	root	RT	0	282M	27080	6468	0.0	2.9	0:00:00	/sbin/multipathd -d -s
204	root	RT	0	282M	27080	6468	0.0	2.9	0:00:00	/sbin/multipathd -d -s
205	root	RT	0	282M	27080	6468	0.0	2.9	0:00:00	/sbin/multipathd -d -s
334	systemd-re	20	0	21592	12860	10688	0.0	1.4	0:00:17	/usr/lib/systemd/systemd-resolved
527	systemd-ne	20	0	22408	9644	8622	0.0	1.0	0:00:07	/usr/lib/systemd/systemd-networkd
580	root	20	0	27048	1984	1868	0.0	0.0	0:00:00	/usr/sbin/acpid
593	root	20	0	2724	1512	1024	0.0	0.3	0:00:00	/usr/sbin/cron -f -p
594	messagebus	20	0	9996	5640	4744	0.0	0.6	0:00:76	ibus-daemon --system --address=systemd: --nofork --nopidfile --systemd-activation --syslog-only
600	root	20	0	82920	4444	4188	0.0	0.5	0:00:73	/usr/sbin/irbalance
602	root	20	0	3240	20532	10420	0.0	2.2	0:00:14	/usr/bin/python3 /usr/bin/network-dispatcher --run-startup-triggers
603	polkitd	20	0	374M	8586	7540	0.0	1.3	0:00:10	/usr/lib/polkit-1/polkitd --no-debug
606	root	20	0	19420	4444	4188	0.0	0.5	0:00:00	/usr/sbin/irbalance
622	root	20	0	18172	8580	7684	0.0	0.9	0:00:18	/usr/lib/systemd/systemd-logind
631	root	20	0	458M	13664	11488	0.0	1.5	0:00:15	/usr/libexec/udisks2/udisksd
632	root	20	0	1949M	36772	24024	0.0	3.9	0:00:10	/usr/lib/snapd/snap
633	root	20	0	1949M	36772	24024	0.0	3.9	0:00:03	/usr/lib/snapd/snap
634	root	20	0	1949M	36772	24024	0.0	3.9	0:00:00	/usr/lib/snapd/snap
635	root	20	0	1949M	36772	24024	0.0	3.9	0:00:00	/usr/lib/snapd/snap
657	root	20	0	458M	13664	11488	0.0	1.5	0:00:42	/usr/libexec/udisks2/udisksd
658	root	20	0	458M	13664	11488	0.0	1.5	0:00:00	/usr/libexec/udisks2/udisksd
663	root	20	0	458M	13664	11488	0.0	1.5	0:00:08	/usr/libexec/udisks2/udisksd
701	root	20	0	6148	1894	1893	0.0	0.2	0:00:00	/sbin/agetty -l uucp -u uucp -baud 115200,57600,38400,9600 - v220
710	chrony	20	0	1016	1116	1024	0.0	0.4	0:00:00	/usr/sbin/chronyd -F -f
719	chrony	20	0	11072	2328	1772	0.0	0.2	0:00:00	/usr/sbin/chronyd -F -f
737	root	20	0	107M	2864	1522	0.0	2.4	0:00:44	/usr/bin/python3 /usr/share/unattended-upgrades/unattended-upgrade-shutdown --wait-for-signal
749	polkitd	20	0	374M	8586	7540	0.0	1.1	0:00:47	/usr/lib/polkit-1/polkitd --no-debug
750	polkitd	20	0	374M	8586	7540	0.0	1.1	0:00:00	/usr/lib/polkit-1/polkitd --no-debug
752	syslog	20	0	237M	8136	4908	0.0	0.7	0:00:00	/usr/sbin/rsyslogd -n -NONE
753	syslog	20	0	237M	8136	4908	0.0	0.7	0:00:00	/usr/sbin/rsyslogd -n -NONE
774	root	20	0	458M	13664	11488	0.0	1.5	0:00:00	/usr/libexec/udisks2/udisksd
795	root	20	0	1949M	36772	24024	0.0	3.9	0:00:06	/usr/lib/snapd/snap
811	root	20	0	382M	12764	10972	0.0	1.4	0:00:08	/usr/sbin/ModemManager
827	root	20	0	6104	2000	1872	0.0	0.2	0:00:00	/sbin/agetty -p - 1 u -u nouclear - Linux
838	root	20	0	388M	16080	14888	0.0	1.4	0:00:00	/usr/libexec/udisks2/udisksd
848	root	20	0	1949M	36772	24024	0.0	3.9	0:00:08	/usr/lib/snapd/snap
853	syslog	20	0	217M	6156	4620	0.0	0.7	0:00:04	/usr/sbin/rsyslogd -n -NONE
854	syslog	20	0	217M	6156	4620	0.0	0.7	0:00:00	/usr/sbin/rsyslogd -n -NONE
855	syslog	20	0	217M	6156	4620	0.0	0.7	0:00:02	/usr/sbin/rsyslogd -n -NONE
860	root	20	0	382M	12764	10972	0.0	1.4	0:00:00	/usr/sbin/ModemManager
863	root	20	0	382M	12764	10972	0.0	1.4	0:00:00	/usr/sbin/ModemManager

- Cpu checking by using mpstat command

```
ubuntu@ip-172-31-30-187:~$ mpstat
Linux 6.14.0-1015-aws (ip-172-31-30-187)        12/10/25        _x86_64_        (2 CPU)

13:40:27      CPU    %usr   %nice   %sys %iowait   %irq   %soft   %steal   %guest   %gnice   %idle
13:40:27     all    0.03    0.00    0.02    0.01    0.00    0.00    0.02    0.00    0.00    0.00   99.92
ubuntu@ip-172-31-30-187:~$
```

- Checking memory by using free -m command

```
ubuntu@ip-172-31-30-187:~$ free -m
              total        used        free      shared  buff/cache   available
Mem:       914         345         328          2        399        568
Swap:        0          0          0
ubuntu@ip-172-31-30-187:~$
```

- Checking cpu and memory by using vmstat 1 command

```
ubuntu@ip-172-31-30-187:~$ vmstat 1
procs -----memory----- --swap-- -----io---- -system-- -----cpu-----
r b swpd free  buff cache si so bi bo in cs us sy id wa st gu
2 0 0 323060 20948 388512 0 0 11 9 41 0 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 207 152 1 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 121 87 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 74 59 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 56 43 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 45 46 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 49 45 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 56 49 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 54 43 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 49 43 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 38 38 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 54 47 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 50 47 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 56 47 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 43 43 0 0 100 0 0 0
0 0 0 323060 20948 388552 0 0 0 0 62 48 0 0 100 0 0 0
0 0 0 323060 20956 388544 0 0 0 0 40 59 57 0 0 100 0 0 0
0 0 0 323060 20956 388556 0 0 0 0 0 38 44 0 0 100 0 0 0
0 0 0 323060 20956 388556 0 0 0 0 41 45 0 0 100 0 0 0
0 0 0 323060 20956 388556 0 0 0 0 44 43 0 0 100 0 0 0
0 0 0 323060 20956 388556 0 0 0 0 54 42 0 0 100 0 0 0
0 0 0 323060 20956 388556 0 0 0 0 61 49 0 0 100 0 0 0
0 0 0 323060 20956 388556 0 0 0 0 40 44 0 0 100 0 0 0
0 0 0 323060 20956 388556 0 0 0 0 39 40 0 0 100 0 0 0
0 0 0 323060 20956 388556 0 0 0 0 51 43 0 0 100 0 0 0
0 0 0 323060 20956 388556 0 0 0 0 44 43 0 0 100 0 0 0
ubuntu@ip-172-31-30-187:~$
```

- Test the connectivity between 2 nodes

```
ubuntu@ip-172-31-30-187:~$ ping 13.60.8.50
PING 13.60.8.50 (13.60.8.50) 56(84) bytes of data.
^C
--- 13.60.8.50 ping statistics ---
45 packets transmitted, 0 received, 100% packet loss, time 45074ms

ubuntu@ip-172-31-30-187:~$ telnet 13.60.8.50 22
Trying 13.60.8.50...
Connected to 13.60.8.50.
Escape character is '^]'.
SSH-2.0-OpenSSH_9.6p1 Ubuntu-3ubuntu13.14
^C
Connection closed by foreign host.
ubuntu@ip-172-31-30-187:~$ nc -zv 13.60.8.50 22
Connection to 13.60.8.50 22 port [tcp/ssh] succeeded!
ubuntu@ip-172-31-30-187:~$ traceroute 13.60.8.50
traceroute to 13.60.8.50 (13.60.8.50), 30 hops max
traceroute: can't resolve 13.60.8.50: Unknown host
ubuntu@ip-172-31-30-187:~$
```

- Test the connectivity between 2 nodes by using traceroute command

```
ubuntu@ip-172-31-30-187:~$ traceroute 13.60.8.50
traceroute to 13.60.8.50 (13.60.8.50), 30 hops max, 60 byte packets
1  ec2-13-53-0-211.eu-north-1.compute.amazonaws.com (13.53.0.211)  6.877 ms 244.5.0.113 (244.5.0.113)  4.263 ms ec2-13-53-0-213.eu-north-1.compute.amazonaws.com (13.53.0.213)  5.612 ms
2  * * *
3  * * *
4  * * *
5  * * *
6  * * *
7  * * *
8  * * *
9  * * *
10 * * *
11 * * *
12 * * *
13 * * *
14 * * *
15 * * *
16 * * *
17 * * *^C
```

2.I have deployed an application in guvi.com:9000, and logs show my app is running, but I'm unable to view the page. Check whether my port is open or not ?

```
ubuntu@ip-172-31-30-187:~$ sudo ss -tulnp | grep 9000
ubuntu@ip-172-31-30-187:~$ nc -zv guvi.in 9000
^C
ubuntu@ip-172-31-30-187:~$ telnet guvi.in 9000
Trying 172.67.70.207...
^C
ubuntu@ip-172-31-30-187:~$ |
```

Port is blocked. App is not listing.