

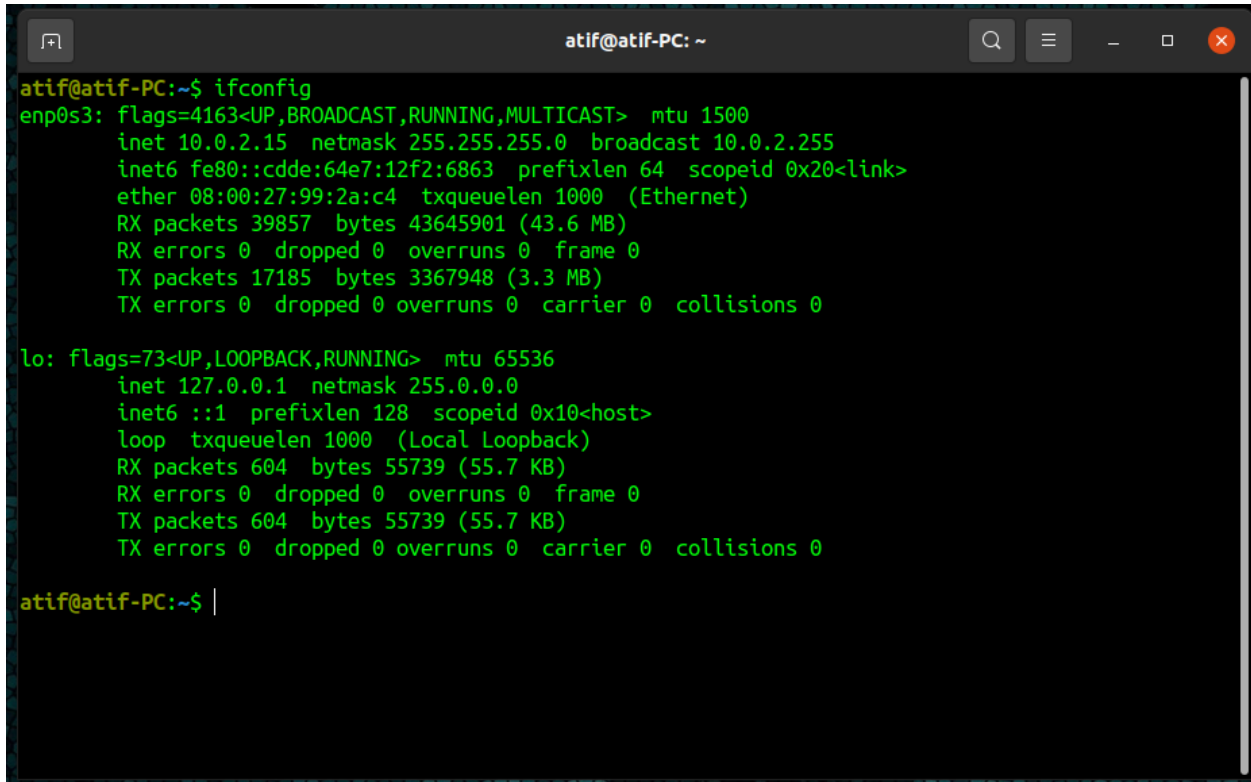
## CSE 232: Assignment 1

By :- **Mohammad Atif Quamar**

Roll No :- 2020523

### Answer 1

Screenshot of the **ifconfig** command :-



```
atif@atif-PC:~$ 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::cdde:64e7:12f2:6863 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:99:2a:c4 txqueuelen 1000 (Ethernet)
    RX packets 39857 bytes 43645901 (43.6 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 17185 bytes 3367948 (3.3 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 604 bytes 55739 (55.7 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 604 bytes 55739 (55.7 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

atif@atif-PC:~$ |
```

Above is the attached screenshot of the “ifconfig” command.

The IP addresses are mentioned under the tab named “enp0s3”.

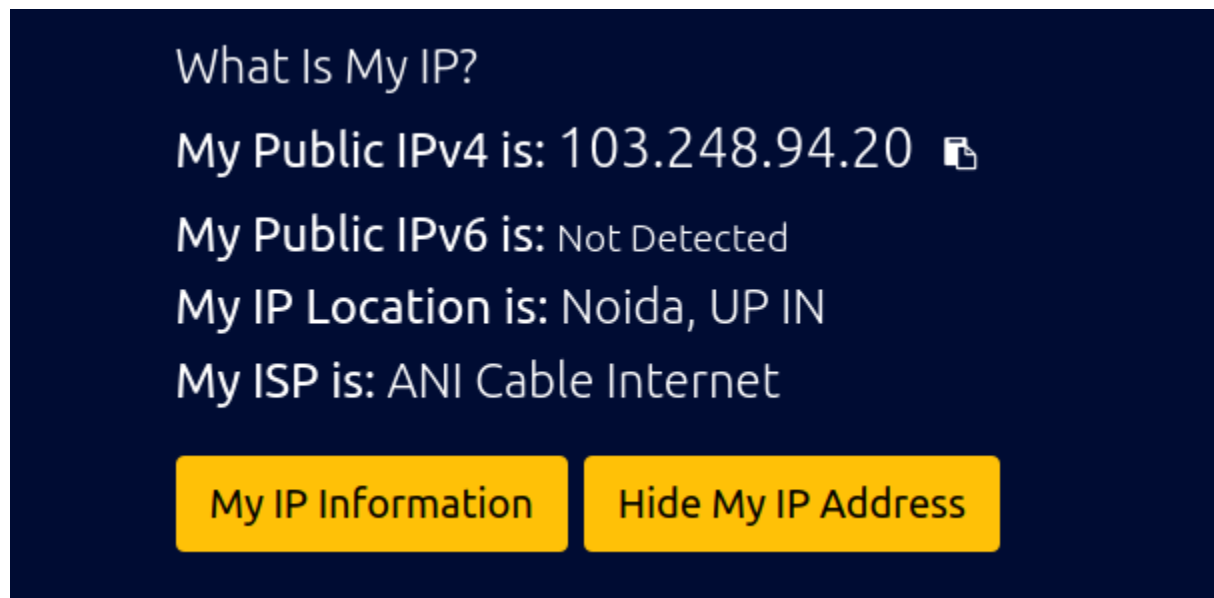
The “en” stands for Ethernet, “p0” is a bus number of the Ethernet card and “s3” is a slot number.

From the above screenshot we see that the:-

IPv4 address :- 10.0.2.15

IPv6 address :- fe80::cdde:64e7:12f2:6863

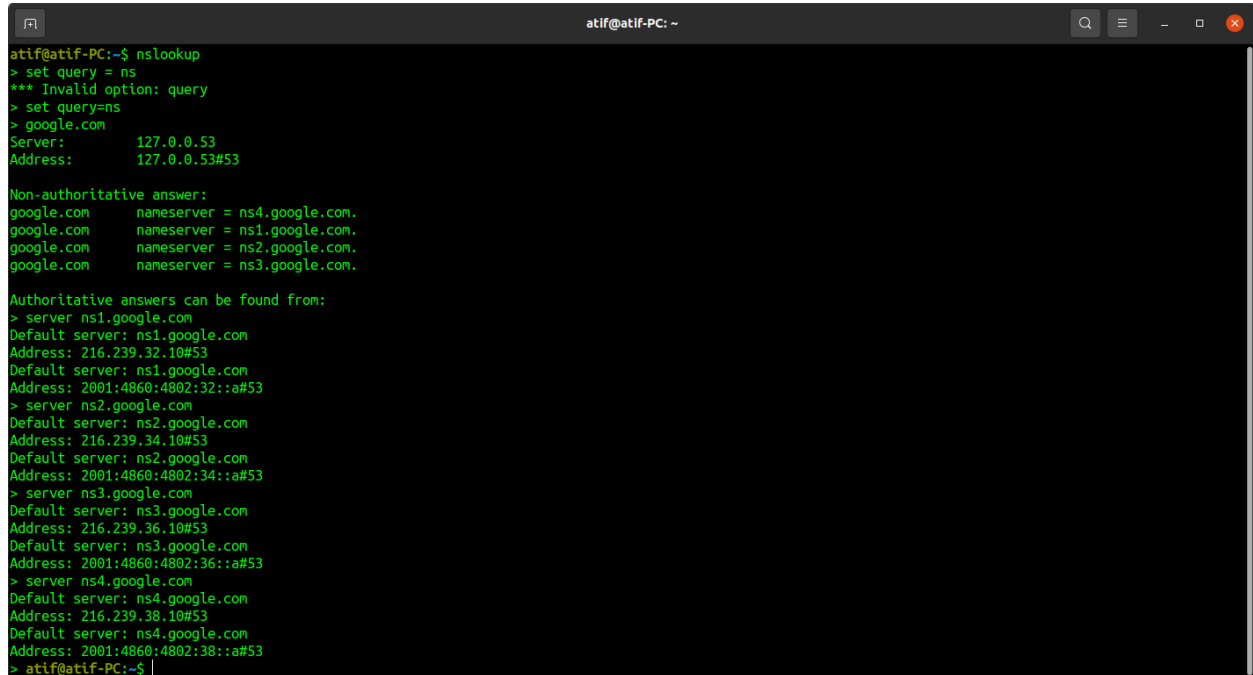
b)



The IP address shown in the from the website “whatismyip.com” is different from what is shown from the ipconfig command. Because the IPv4 shown on whatismyip.com is my public IP address but from the ifconfig command, the IP address shown is my private IP address.

## Answer 2

a)



```
atif@atif-PC: ~  
> nslookup  
> set query = ns  
*** Invalid option: query  
> set query=ns  
> google.com  
Server:          127.0.0.53  
Address:         127.0.0.53#53  
  
Non-authoritative answer:  
google.com       nameserver = ns4.google.com.  
google.com       nameserver = ns1.google.com.  
google.com       nameserver = ns2.google.com.  
google.com       nameserver = ns3.google.com.  
  
Authoritative answers can be found from:  
> server ns1.google.com  
Default server: ns1.google.com  
Address: 216.239.32.10#53  
Default server: ns1.google.com  
Address: 2001:4860:4802:32::a#53  
> server ns2.google.com  
Default server: ns2.google.com  
Address: 216.239.34.10#53  
Default server: ns2.google.com  
Address: 2001:4860:4802:34::a#53  
> server ns3.google.com  
Default server: ns3.google.com  
Address: 216.239.36.10#53  
Default server: ns3.google.com  
Address: 2001:4860:4802:36::a#53  
> server ns4.google.com  
Default server: ns4.google.com  
Address: 216.239.38.10#53  
Default server: ns4.google.com  
Address: 2001:4860:4802:38::a#53  
> atif@atif-PC: ~$
```

We can get the authoritative result in nslookup by:-

- First, typing nslookup
- Then setting the query to “ns”, by “set query=ns”
- Then the terminal gives us a list of servers from which we can get an authoritative response.
- Then, we enter “server “server name”” like “server ns1.google.com”. Then we get an authoritative response from the servers.

We were not getting authoritative access in the first place because we need the DNS server access, hence after executing the above commands we get the access and also the authoritative access.

b)

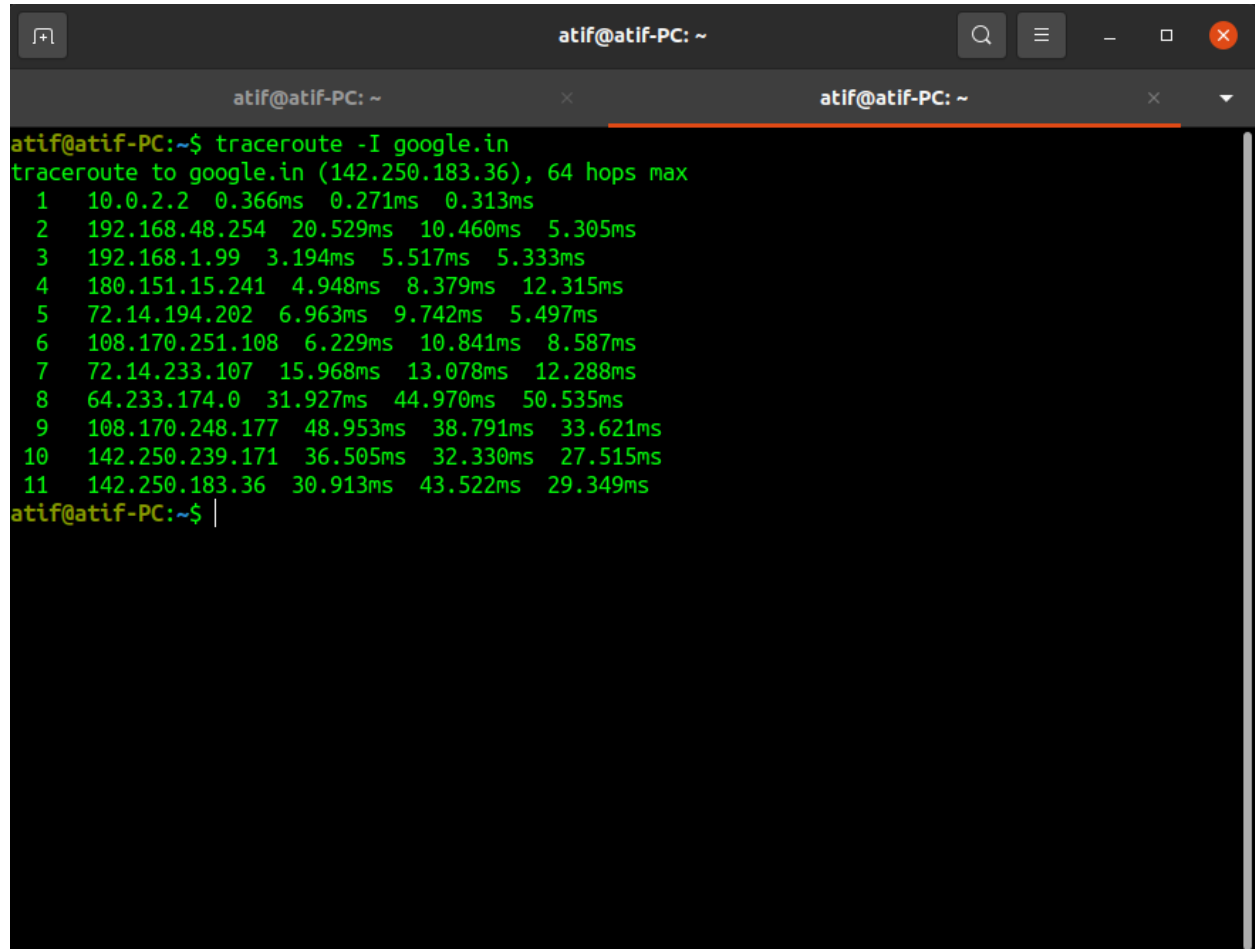
```
atif@atif-PC: ~  
atif@atif-PC:~$ dig A NS google.com @ns1.google.com  
;; Warning, extra type option  
  
; <<>> DiG 9.16.1-Ubuntu <<>> A NS google.com @ns1.google.com  
;; global options: +cmd  
;; Got answer:  
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 56605  
;; flags: qr aa rd; QUERY: 1, ANSWER: 4, AUTHORITY: 0, ADDITIONAL: 9  
;; WARNING: recursion requested but not available  
  
;; OPT PSEUDOSECTION:  
;; EDNS: version: 0, flags:; udp: 512  
;; QUESTION SECTION:  
google.com. IN NS  
  
;; ANSWER SECTION:  
google.com. 345600 IN NS ns3.google.com.  
google.com. 345600 IN NS ns2.google.com.  
google.com. 345600 IN NS ns4.google.com.  
google.com. 345600 IN NS ns1.google.com.  
  
;; ADDITIONAL SECTION:  
ns3.google.com. 345600 IN A 216.239.36.10  
ns3.google.com. 345600 IN AAAA 2001:4860:4802:36::a  
ns2.google.com. 345600 IN A 216.239.34.10  
ns2.google.com. 345600 IN AAAA 2001:4860:4802:34::a  
ns4.google.com. 345600 IN A 216.239.38.10  
ns4.google.com. 345600 IN AAAA 2001:4860:4802:38::a  
ns1.google.com. 345600 IN A 216.239.32.10  
ns1.google.com. 345600 IN AAAA 2001:4860:4802:32::a  
  
;; Query time: 76 msec  
;; SERVER: 216.239.32.10#53(216.239.32.10)  
;; WHEN: Thu Sep 22 21:50:08 IST 2022  
;; MSG SIZE rcvd: 287  
  
atif@atif-PC:~$ |
```

The time to live for [www.google.com](http://www.google.com) is 345600 seconds.

This time is shown as the second argument of the **ANSWER SECTION**. The time after which the entry would expire is 345600 seconds.

## Answer 3

a)



```
atif@atif-PC: ~  
atif@atif-PC:~$ traceroute -I google.in  
traceroute to google.in (142.250.183.36), 64 hops max  
 1  10.0.2.2  0.366ms  0.271ms  0.313ms  
 2  192.168.48.254  20.529ms  10.460ms  5.305ms  
 3  192.168.1.99  3.194ms  5.517ms  5.333ms  
 4  180.151.15.241  4.948ms  8.379ms  12.315ms  
 5  72.14.194.202  6.963ms  9.742ms  5.497ms  
 6  108.170.251.108  6.229ms  10.841ms  8.587ms  
 7  72.14.233.107  15.968ms  13.078ms  12.288ms  
 8  64.233.174.0  31.927ms  44.970ms  50.535ms  
 9  108.170.248.177  48.953ms  38.791ms  33.621ms  
10  142.250.239.171  36.505ms  32.330ms  27.515ms  
11  142.250.183.36  30.913ms  43.522ms  29.349ms  
atif@atif-PC:~$
```

As seen in the above screenshot, there are 11 intermediate hosts.

The average latency of each host is (serial wise):-

1. 10.0.2.2	-	0.316ms
2. 192.168.48.254	-	12.098ms
3. 192.168.1.99	-	4.681ms
4. 180.151.15.241	-	8.547ms
5. 72.14.194.202	-	7.400ms

6. 108.170.251.108	-	8.552ms
7. 72.14.233.107	-	13.778ms
8. 64.233.174.0	-	42.477ms
9. 108.170.248.177	-	40.455ms
10. 142.250.239.171	-	32.116ms
11. 142.250.183.36	-	34.594ms

b) 100 pings to [www.google.in](http://www.google.in)

```
Administrator: Command Prompt
Reply from 142.250.183.67: bytes=68 (sent 600) time=25ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=25ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=25ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=27ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=26ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=26ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=24ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=26ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=27ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=28ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=38ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=26ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=28ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=25ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=31ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=26ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=25ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=29ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=26ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=29ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=27ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=27ms TTL=117
Reply from 142.250.183.67: bytes=68 (sent 600) time=29ms TTL=117

Ping statistics for 142.250.183.67:
    Packets: Sent = 100, Received = 100, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 24ms, Maximum = 409ms, Average = 33ms

C:\Windows\System32>
```

c) 100 pings to [www.columbia.edu](http://www.columbia.edu)

```
Administrator: Command Prompt
Reply from 128.59.105.24: bytes=600 time=245ms TTL=234
Reply from 128.59.105.24: bytes=600 time=244ms TTL=234
Reply from 128.59.105.24: bytes=600 time=243ms TTL=234
Reply from 128.59.105.24: bytes=600 time=439ms TTL=234
Reply from 128.59.105.24: bytes=600 time=248ms TTL=234
Reply from 128.59.105.24: bytes=600 time=246ms TTL=234
Reply from 128.59.105.24: bytes=600 time=245ms TTL=234
Reply from 128.59.105.24: bytes=600 time=245ms TTL=234
Reply from 128.59.105.24: bytes=600 time=274ms TTL=234
Reply from 128.59.105.24: bytes=600 time=243ms TTL=234
Reply from 128.59.105.24: bytes=600 time=258ms TTL=234
Reply from 128.59.105.24: bytes=600 time=247ms TTL=234
Reply from 128.59.105.24: bytes=600 time=249ms TTL=234
Reply from 128.59.105.24: bytes=600 time=250ms TTL=234
Reply from 128.59.105.24: bytes=600 time=253ms TTL=234
Reply from 128.59.105.24: bytes=600 time=266ms TTL=234
Reply from 128.59.105.24: bytes=600 time=249ms TTL=234
Request timed out.
Reply from 128.59.105.24: bytes=600 time=246ms TTL=234
Reply from 128.59.105.24: bytes=600 time=244ms TTL=234
Reply from 128.59.105.24: bytes=600 time=243ms TTL=234
Reply from 128.59.105.24: bytes=600 time=246ms TTL=234
Reply from 128.59.105.24: bytes=600 time=244ms TTL=234

Ping statistics for 128.59.105.24:
    Packets: Sent = 100, Received = 99, Lost = 1 (1% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 242ms, Maximum = 439ms, Average = 249ms

C:\Windows\System32>
```

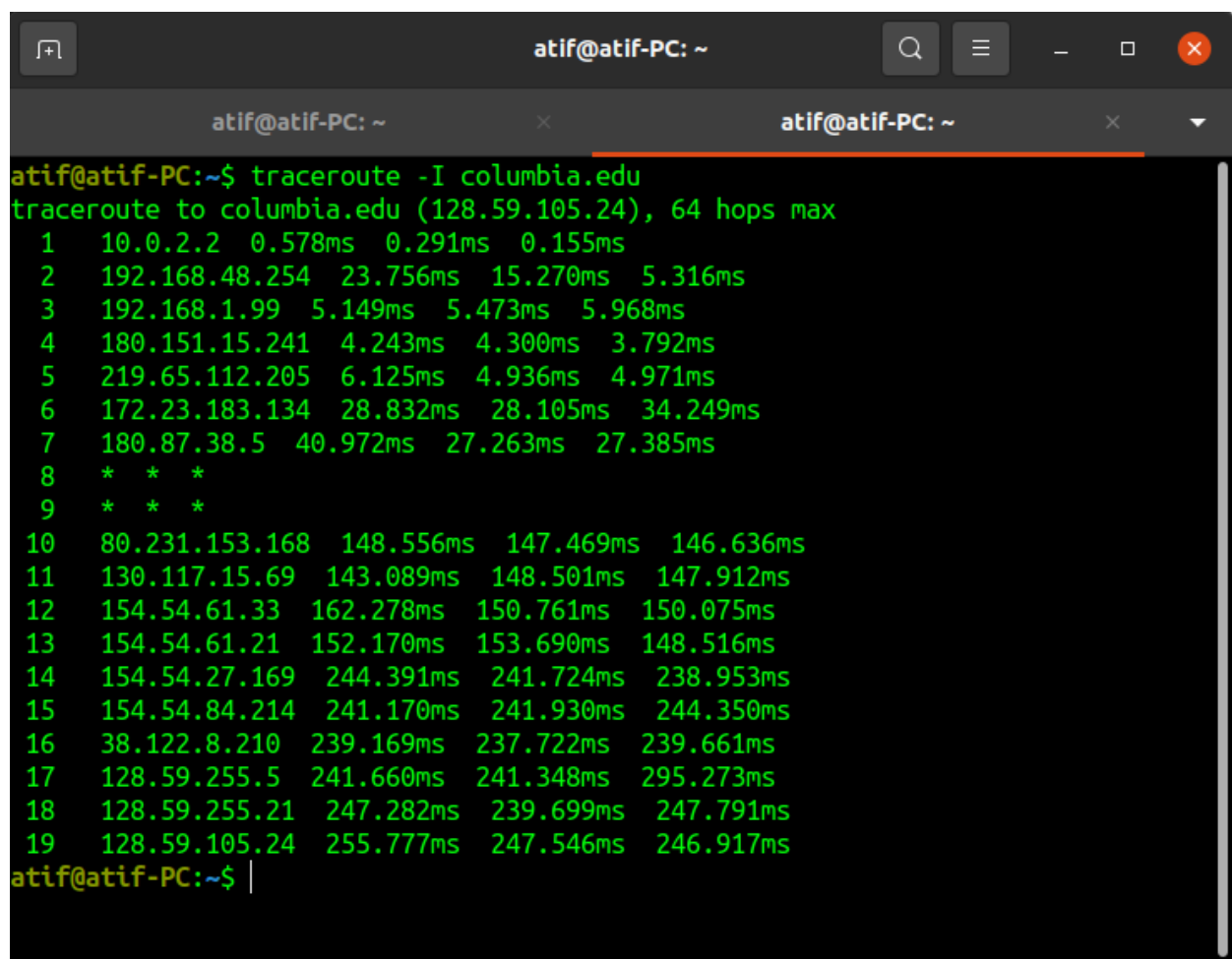
d)

The sum of all the average time of the intermediate hosts is 205.014 ms. While the average time for direct pinging to google.in is 33 ms. The variation is so much because in traceroute the packet gets a reply from all the intermediate nodes so the sum of all times would be much greater than the direct communication of the packets from the google.in server. Hence , there is much more variation in the duration.

e)

The maximum ping latency among all the intermediate nodes is : 42.477 ms  
The average latency to ping google.in is 33 ms. These two latencies are similar because the maximum latency which is 42.477 ms which is coming from the intermediate node, would be much closer to the google.in server. Hence the maximum latency among all intermediate nodes and average latency to ping google.in is almost similar.

f)

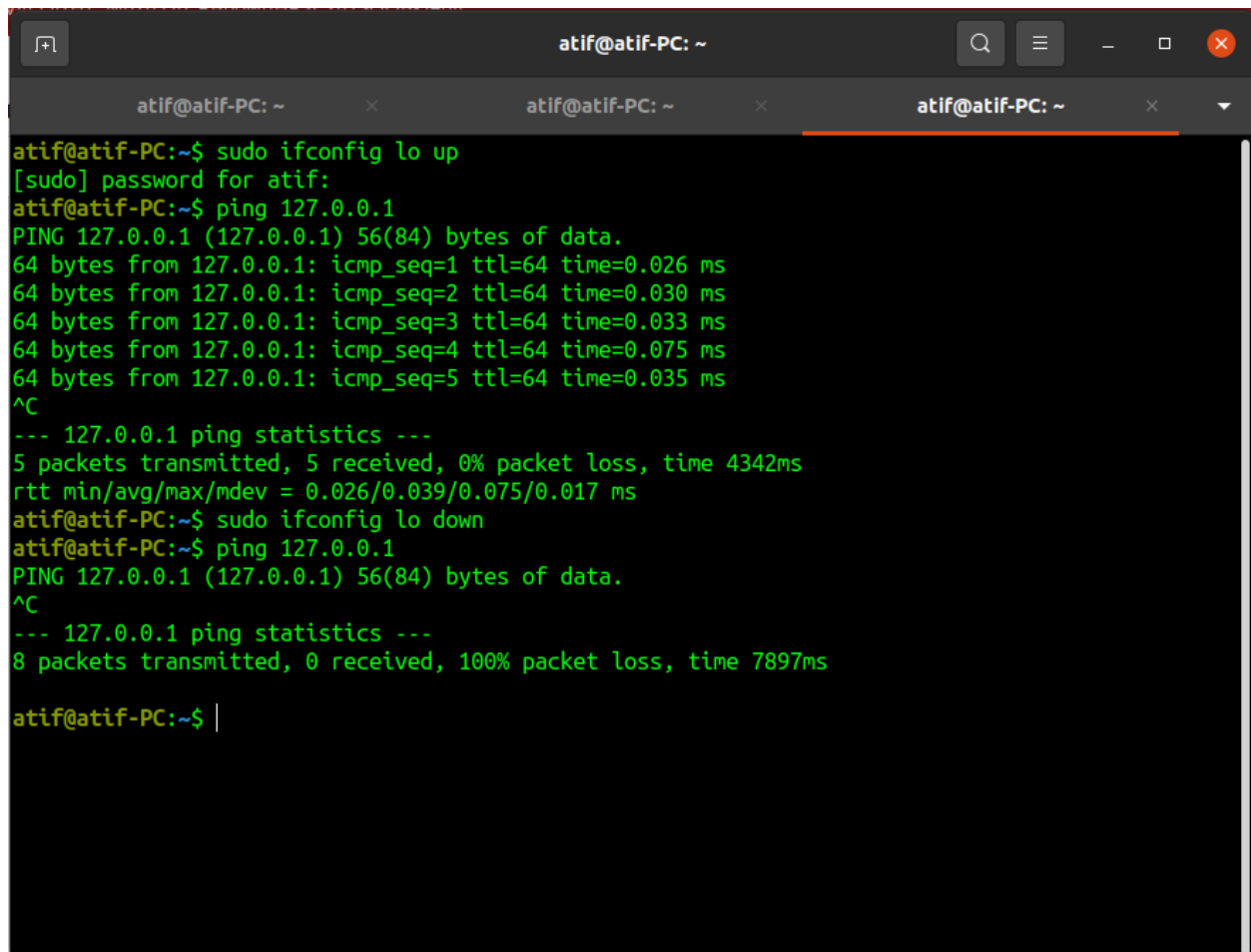


```
atif@atif-PC: ~  
atif@atif-PC:~$ traceroute -I columbia.edu  
traceroute to columbia.edu (128.59.105.24), 64 hops max  
 1  10.0.2.2  0.578ms  0.291ms  0.155ms  
 2  192.168.48.254  23.756ms  15.270ms  5.316ms  
 3  192.168.1.99  5.149ms  5.473ms  5.968ms  
 4  180.151.15.241  4.243ms  4.300ms  3.792ms  
 5  219.65.112.205  6.125ms  4.936ms  4.971ms  
 6  172.23.183.134  28.832ms  28.105ms  34.249ms  
 7  180.87.38.5  40.972ms  27.263ms  27.385ms  
 8  * * *  
 9  * * *  
10  80.231.153.168  148.556ms  147.469ms  146.636ms  
11  130.117.15.69  143.089ms  148.501ms  147.912ms  
12  154.54.61.33  162.278ms  150.761ms  150.075ms  
13  154.54.61.21  152.170ms  153.690ms  148.516ms  
14  154.54.27.169  244.391ms  241.724ms  238.953ms  
15  154.54.84.214  241.170ms  241.930ms  244.350ms  
16  38.122.8.210  239.169ms  237.722ms  239.661ms  
17  128.59.255.5  241.660ms  241.348ms  295.273ms  
18  128.59.255.21  247.282ms  239.699ms  247.791ms  
19  128.59.105.24  255.777ms  247.546ms  246.917ms  
atif@atif-PC:~$
```



The number of hops between columbia.edu is 19 whereas the number of hops for google.in is 11. Hops are less for google.in because google.in's server is located in India so there will be less number of intermediate nodes than a server which is in Columbia.

#### Answer 4

A terminal window titled 'atif@atif-PC: ~' with three tabs. The terminal shows the following commands and output:

```
atif@atif-PC:~$ sudo ifconfig lo up
[sudo] password for atif:
atif@atif-PC:~$ ping 127.0.0.1
PING 127.0.0.1 (127.0.0.1) 56(84) bytes of data.
64 bytes from 127.0.0.1: icmp_seq=1 ttl=64 time=0.026 ms
64 bytes from 127.0.0.1: icmp_seq=2 ttl=64 time=0.030 ms
64 bytes from 127.0.0.1: icmp_seq=3 ttl=64 time=0.033 ms
64 bytes from 127.0.0.1: icmp_seq=4 ttl=64 time=0.075 ms
64 bytes from 127.0.0.1: icmp_seq=5 ttl=64 time=0.035 ms
^C
--- 127.0.0.1 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4342ms
rtt min/avg/max/mdev = 0.026/0.039/0.075/0.017 ms
atif@atif-PC:~$ sudo ifconfig lo down
atif@atif-PC:~$ ping 127.0.0.1
PING 127.0.0.1 (127.0.0.1) 56(84) bytes of data.
^C
--- 127.0.0.1 ping statistics ---
8 packets transmitted, 0 received, 100% packet loss, time 7897ms

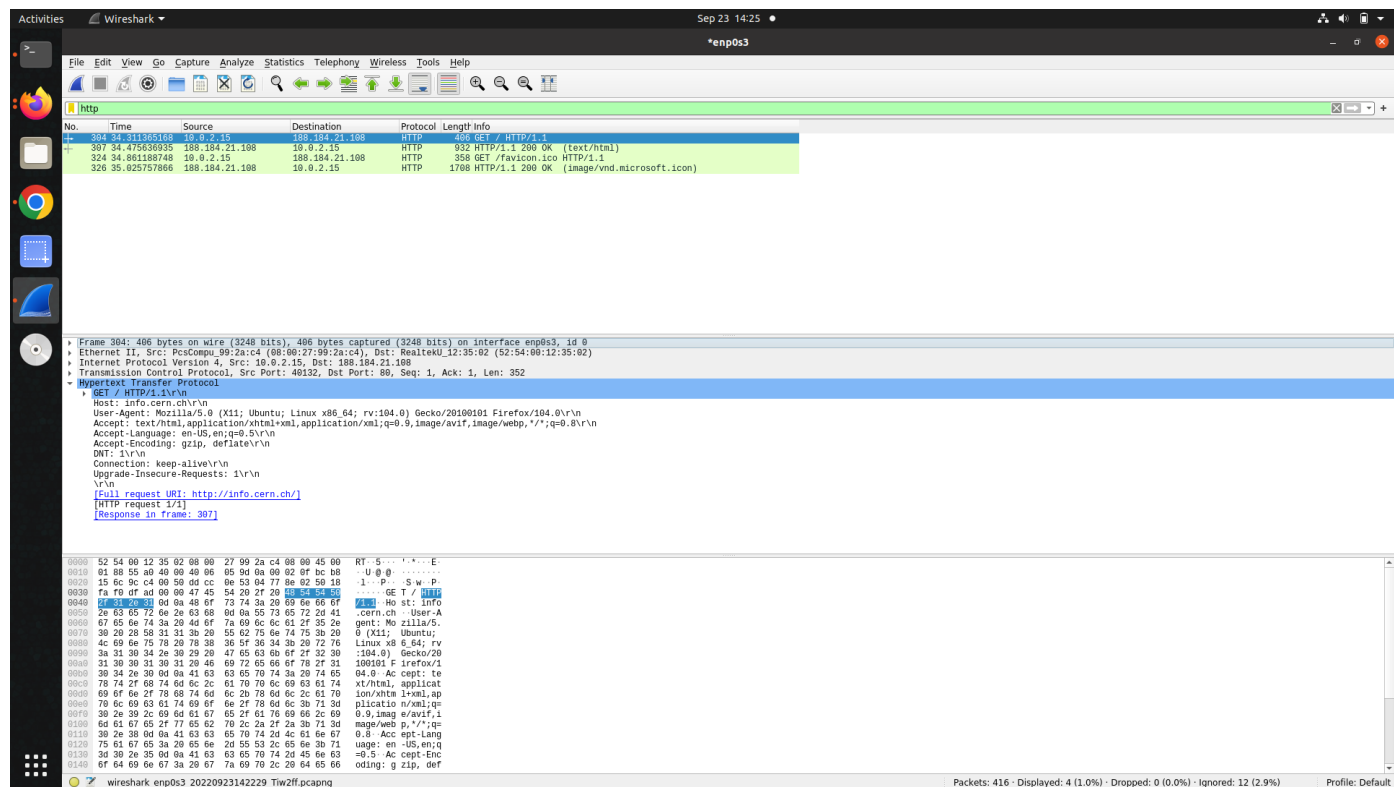
atif@atif-PC:~$ |
```

We see that earlier when we enter the command “sudo ifconfig lo up”, the pinging is successful and we receive all the packets transmitted, with 0% packet loss.

After entering the command “sudo ifconfig lo down”, the ping is unsuccessful and we aren’t able to receive any packets. Hence we have successfully failed the ping command for 127.0.0.1 with 100% packet loss.

This happens because when we enter the command “sudo ifconfig lo up”, the local host becomes active, it is reachable. Now when we run the command, “sudo ifconfig lo down”, the localhost turns down and we are not able to ping 127.0.0.1

## Answer 5



Wireshark interface showing a packet capture on interface `enp0s3`. The packet list shows three HTTP packets. The selected packet (No. 304) is an HTTP GET request to `http://info.cern.ch/`. The packet details pane shows the request structure, including the `Host: info.cern.ch` header. The packet bytes pane shows the raw data in hexadecimal and ASCII.

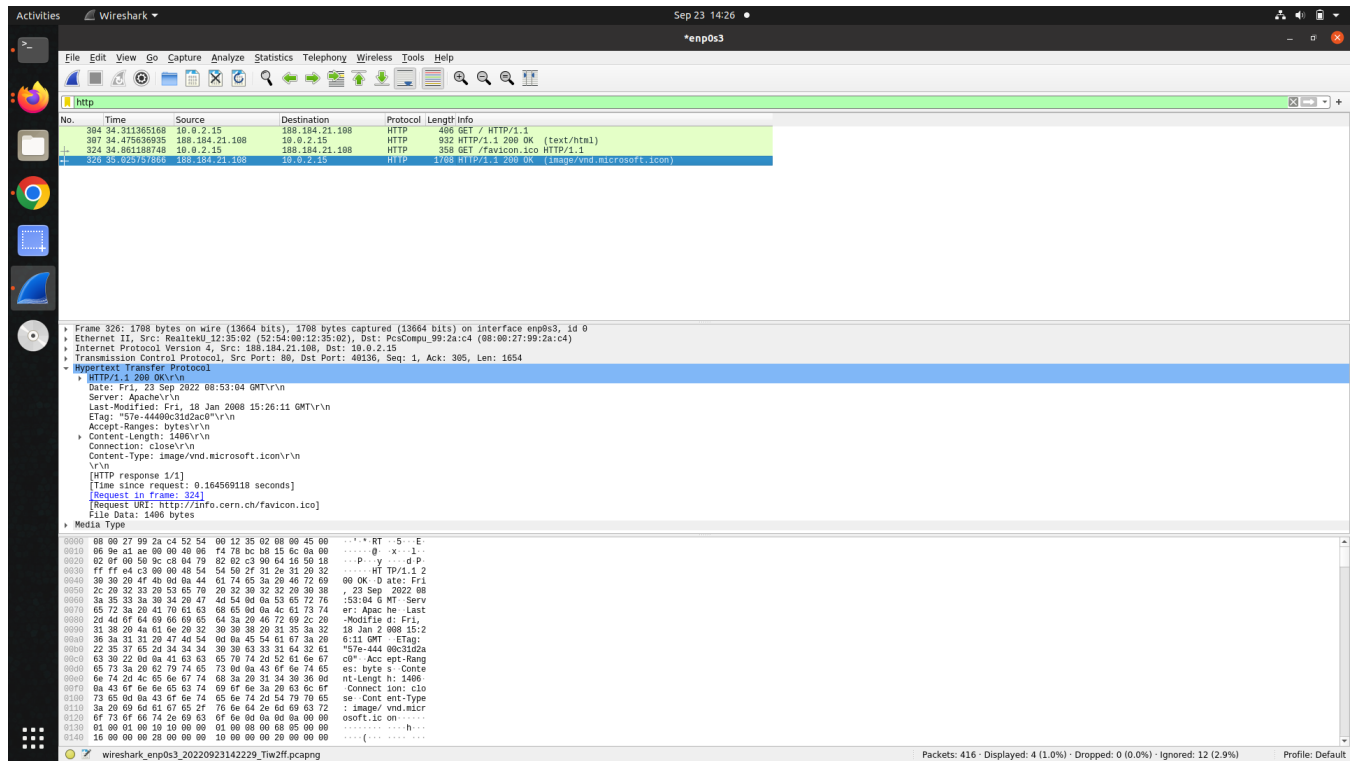
No.	Time	Source	Destination	Protocol	Length	Info
304	34.311365168	10.0.2.15	188.184.21.108	HTTP	406	GET / HTTP/1.1
305	34.311365168	188.184.21.108	10.0.2.15	HTTP	932	HTTP/1.1 200 OK (text/html)
326	35.025757866	188.184.21.108	10.0.2.15	HTTP	1788	HTTP/1.1 200 OK (image/vnd.microsoft.icon)

Frame 307: 932 bytes on wire (7456 bits), 932 bytes captured (7456 bits) on interface `enp0s3`, id 0  
Ethernet II, Src: RealtekU12:35:02 (52:54:00:12:35:02), Dst: PcsCompu99:2a:c4 (08:00:27:99:2a:c4)  
Internet Protocol Version 4, Src: 188.184.21.108, Dst: 10.0.2.15  
Transmission Control Protocol, Src Port: 80, Dst Port: 40132, Seq: 1, Ack: 353, Len: 878  
Hypertext Transfer Protocol  
GET / HTTP/1.1 200 OK  
Date: Fri, 23 Sep 2022 08:53:04 GMT  
Server: Apache/2.4.18 (Ubuntu)  
Last-Modified: Wed, 05 Feb 2014 16:00:31 GMT  
ETag: "286-af1aadb3185c0b"\n\nAccept-Ranges: bytes  
Content-Length: 646  
Content-Type: text/html  
[HTTP response 1/1]  
[Time since request: 0.164271767 seconds]  
[Request in frame: 304]  
Request URI: http://info.cern.ch/  
File Data: 646 bytes  
Line-based text data: text/html (13 lines)

Wireshark interface showing a packet capture on interface `enp0s3`. The packet list shows three HTTP packets. The selected packet (No. 326) is an HTTP GET request to `http://info.cern.ch/favicon.ico`. The packet details pane shows the request structure, including the `Host: info.cern.ch` header. The packet bytes pane shows the raw data in hexadecimal and ASCII.

No.	Time	Source	Destination	Protocol	Length	Info
304	34.311365168	10.0.2.15	188.184.21.108	HTTP	406	GET / HTTP/1.1
305	34.311365168	188.184.21.108	10.0.2.15	HTTP	932	HTTP/1.1 200 OK (text/html)
326	35.025757866	188.184.21.108	10.0.2.15	HTTP	1788	HTTP/1.1 200 OK (image/vnd.microsoft.icon)

Frame 324: 358 bytes on wire (2864 bits), 358 bytes captured (2864 bits) on interface `enp0s3`, id 0  
Ethernet II, Src: PcsCompu99:2a:c4 (08:00:27:99:2a:c4), Dst: RealtekU12:35:02 (52:54:00:12:35:02)  
Internet Protocol Version 4, Src: 10.0.2.15, Dst: 188.184.21.108  
Transmission Control Protocol, Src Port: 40136, Dst Port: 80, Seq: 1, Ack: 1, Len: 304  
Hypertext Transfer Protocol  
GET /favicon.ico HTTP/1.1  
Host: info.cern.ch  
User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86\_64; rv:104.0) Gecko/20100101 Firefox/104.0  
Accept: image/avif,image/webp,\*/\*  
Accept-Language: en-US,en;q=0.5  
Accept-Encoding: gzip, deflate  
DNT: 1  
Connection: keep-alive  
Referer: http://info.cern.ch/  
[Full request URI: http://info.cern.ch/favicon.ico]  
[HTTP request 1/1]  
[Response in frame: 326]



For HTTP request packet types:-

- HTTP request type :- GET
- User agent type :- Mozilla/5.0 (X11; Ubuntu; Linux x86\_64; rv:104.0) Gecko/20100101 Firefox/104.0\r\n
- HTTP request packet URL :- <http://info.cern.ch>

For HTTP response packet types:-

- HTTP response code :- 200
- HTTP response description :- OK
- Name and version of the web server :- Apache

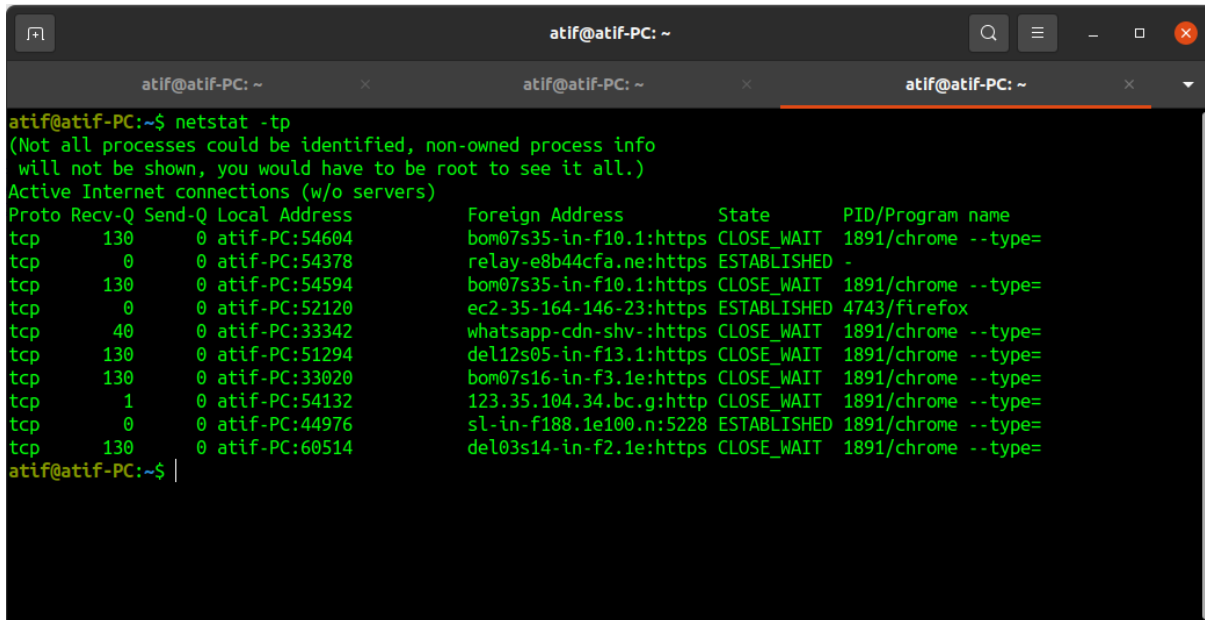
1. 2 web objects get downloaded. They were over different connections.
2. As 2 web objects were downloaded, hence it was HTTP non-persistent.

## Answer 6

a)

Command used = **netstat -tp**

“netstat -tp” command is used to display all active tcp connections with pids.

A terminal window titled 'atif@atif-PC: ~' showing the output of the 'netstat -tp' command. The output lists active TCP connections with columns for protocol, receive/send queue sizes, local address, foreign address, state, and PID/program name. The connections are primarily from Chrome and Firefox to various external servers.

```
atif@atif-PC:~$ netstat -tp
(Not all processes could be identified, non-owned process info
 will not be shown, you would have to be root to see it all.)
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        130      0 atif-PC:54604           bom07s35-in-f10.1:https CLOSE_WAIT  1891/chrome --type=
tcp         0      0 atif-PC:54378           relay-e8b44cfa.ne:https ESTABLISHED -
tcp        130      0 atif-PC:54594           bom07s35-in-f10.1:https CLOSE_WAIT  1891/chrome --type=
tcp         0      0 atif-PC:52120           ec2-35-164-146-23:https ESTABLISHED 4743/firefox
tcp         40      0 atif-PC:33342           whatsapp-cdn-shv-:https CLOSE_WAIT  1891/chrome --type=
tcp        130      0 atif-PC:51294           del12s05-in-f13.1:https CLOSE_WAIT  1891/chrome --type=
tcp        130      0 atif-PC:33020           bom07s16-in-f3.1e:https CLOSE_WAIT  1891/chrome --type=
tcp         1      0 atif-PC:54132           123.35.104.34.bc.g:http CLOSE_WAIT  1891/chrome --type=
tcp         0      0 atif-PC:44976           sl-in-f188.1e100.n:5228 ESTABLISHED 1891/chrome --type=
tcp        130      0 atif-PC:60514           del03s14-in-f2.1e:https CLOSE_WAIT  1891/chrome --type=
atif@atif-PC:~$ |
```

b)

```
atif@atif-PC: ~  
atif@atif-PC: ~  
atif@atif-PC: ~$ netstat -tp http://info.cern.ch  
(Not all processes could be identified, non-owned process info  
will not be shown, you would have to be root to see it all.)  
Active Internet connections (w/o servers)  
Proto Recv-Q Send-Q Local Address Foreign Address State PID/Program name  
tcp 0 0 atif-PC:59630 del12s02-in-f10.1:https ESTABLISHED 1891/chrome --type=  
tcp 0 0 atif-PC:59642 del12s02-in-f10.1:https ESTABLISHED 1891/chrome --type=  
tcp 130 0 atif-PC:54604 bom07s35-in-f10.1:https CLOSE_WAIT 1891/chrome --type=  
tcp 0 0 atif-PC:54378 relay-e8b44cfa.ne:https ESTABLISHED -  
tcp 130 0 atif-PC:54594 bom07s35-in-f10.1:https CLOSE_WAIT 1891/chrome --type=  
tcp 0 0 atif-PC:50290 bom07s18-in-f10.1:https ESTABLISHED 1891/chrome --type=  
tcp 0 0 atif-PC:52120 ec2-35-164-146-23:https ESTABLISHED 4743/firefox  
tcp 130 0 atif-PC:51294 del12s05-in-f13.1:https CLOSE_WAIT 1891/chrome --type=  
tcp 0 0 atif-PC:57938 bom07s35-in-f14.1:https ESTABLISHED 1891/chrome --type=  
tcp 0 0 atif-PC:50294 bom07s18-in-f10.1:https ESTABLISHED 1891/chrome --type=  
tcp 0 0 atif-PC:47954 bom12s17-in-f10.1:https ESTABLISHED 1891/chrome --type=  
tcp 0 0 atif-PC:38860 del12s07-in-f14.1:https ESTABLISHED 1891/chrome --type=  
tcp 0 0 atif-PC:47968 bom12s17-in-f10.1:https ESTABLISHED 1891/chrome --type=  
tcp 1 0 atif-PC:54132 123.35.104.34.bc.g:http CLOSE_WAIT 1891/chrome --type=  
tcp 136 0 atif-PC:49608 del12s08-in-f10.1:https CLOSE_WAIT 1891/chrome --type=  
tcp 0 0 atif-PC:49606 del12s08-in-f10.1:https ESTABLISHED 1891/chrome --type=  
tcp 0 0 atif-PC:45740 del11s08-in-f14.1:https ESTABLISHED 1891/chrome --type=  
tcp 0 0 atif-PC:44976 sl-in-f188.1e100.n:5228 ESTABLISHED 1891/chrome --type=  
atif@atif-PC: ~$
```

The state of the TCP connection(s) to this server is listed under the “State” column of each TCP row.