

LAB-3

1. Verify the IP address to which the DNS message(obtained from wireshark) is sent using ipconfig.

```
Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix  . : 
Description . . . . . : Realtek RTL8723BE 802.11 bgn Wi-Fi Adapter
Physical Address. . . . . : CC-B0-DA-5D-94-E7
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::c2d:beb6:f79c:5177%19(Preferred)
IPv4 Address. . . . . : 192.168.0.8(Preferred)
Subnet Mask . . . . . : 255.255.255.0
Lease Obtained. . . . . : Wednesday, September 30, 2020 9:34:48 AM
Lease Expires . . . . . : Wednesday, September 30, 2020 1:34:45 PM
Default Gateway . . . . . : fe80::f68c:ebff:fea7:c6ab%19
                             192.168.0.1
DHCP Server . . . . . : 192.168.0.1
DHCPv6 IAID . . . . . : 147632346
DHCPv6 Client DUID. . . . . : 00-01-00-01-00-00-A4-E7-98-E7-F4-D7-78-BD
DNS Servers . . . . . : 106.51.115.154
                             106.51.115.144
NetBIOS over Tcpip. . . . . : Enabled

Ethernet adapter Bluetooth Network Connection:
```

No.	Time	Source	Destination	Protocol	Length	Info
1568	14.314752	192.168.0.8	106.51.115.154	DNS	78	Standard query 0x061c A outlook.office.com
1571	14.318861	106.51.115.154	192.168.0.8	DNS	236	Standard query response 0x061c A outlook.office.com CNAME substrate.office.com CNAME substrate.ms-acdc.offi...
3171	30.671268	192.168.0.8	106.51.115.154	DNS	87	Standard query 0x0001 PTR 154.115.51.106.in-addr.arpa
3174	30.687630	106.51.115.154	192.168.0.8	DNS	121	Standard query response 0x0001 PTR 154.115.51.106.in-addr.arpa PTR broadband.actcorp.in
3177	30.711259	192.168.0.8	106.51.115.154	DNS	78	Standard query 0x0002 A www.unimelb.edu.au
3218	31.086038	106.51.115.154	192.168.0.8	DNS	147	Standard query response 0x0002 A www.unimelb.edu.au CNAME gtm-cms.unimelb.edu.au CNAME uom.squizedge.net A ...
3220	31.101569	192.168.0.8	106.51.115.154	DNS	78	Standard query 0x0003 AAAA www.unimelb.edu.au
3222	31.125823	106.51.115.154	192.168.0.8	DNS	216	Standard query response 0x0003 AAAA www.unimelb.edu.au CNAME gtm-cms.unimelb.edu.au CNAME uom.squizedge.net...
3381	32.071673	192.168.0.8	106.51.115.154	DNS	83	Standard query 0xafd7 A ctld1.windowsupdate.com
3382	32.078558	106.51.115.154	192.168.0.8	DNS	306	Standard query response 0xafd7 A ctld1.windowsupdate.com CNAME au-bg-shim.trafficmanager.net CNAME audownlo...

Source Port: 57703
Destination Port: 53
Length: 44
Checksum: 0xd4a5 [unverified]
[Checksum Status: Unverified]
[Stream Index: 34]
[Timestamps]
Domain Name System (query)
Transaction ID: 0x0002
Flags: 0x0100 Standard query

2. What was the type of DNS query ?

Type A, Type AAAA

No.	Time	Source	Destination	Protocol	Length	Info
1568	14.314752	192.168.0.8	106.51.115.154	DNS	78	Standard query 0x061c A outlook.office.com
1571	14.318861	106.51.115.154	192.168.0.8	DNS	236	Standard query response 0x061c A outlook.office.com CNAME substrate.office.com CNAME substrate.ms-acdc.offi...
3171	30.671268	192.168.0.8	106.51.115.154	DNS	87	Standard query 0x0001 PTR 154.115.51.106.in-addr.arpa
3174	30.687630	106.51.115.154	192.168.0.8	DNS	121	Standard query response 0x0001 PTR 154.115.51.106.in-addr.arpa PTR broadband.actcorp.in
3177	30.711259	192.168.0.8	106.51.115.154	DNS	78	Standard query 0x0002 A www.unimelb.edu.au
3218	31.086038	106.51.115.154	192.168.0.8	DNS	147	Standard query response 0x0002 A www.unimelb.edu.au CNAME gtm-cms.unimelb.edu.au CNAME uom.squizedge.net A ...
3220	31.101569	192.168.0.8	106.51.115.154	DNS	78	Standard query 0x0003 AAAA www.unimelb.edu.au
3222	31.125823	106.51.115.154	192.168.0.8	DNS	216	Standard query response 0x0003 AAAA www.unimelb.edu.au CNAME gtm-cms.unimelb.edu.au CNAME uom.squizedge.net...
3381	32.871673	192.168.0.8	106.51.115.154	DNS	83	Standard query 0xafd7 A ctldl.windowsupdate.com
3382	32.878558	106.51.115.154	192.168.0.8	DNS	306	Standard query response 0xafd7 A ctldl.windowsupdate.com CNAME au-bg-shim.trafficmanager.net CNAME audownlo...

> Internet Protocol Version 4, Src: 106.51.115.154, Dst: 192.168.0.8
> User Datagram Protocol, Src Port: 53, Dst Port: 57703
▼ Domain Name System (response)
Transaction ID: 0x0002
> Flags: 0x0100 Standard query response, No error
Questions: 1
Answer RRs: 3
Authority RRs: 0
Additional RRs: 0
▼ Queries
> www.unimelb.edu.au: type A, class IN
▼ Answers

No.	Time	Source	Destination	Protocol	Length	Info
1568	14.314752	192.168.0.8	106.51.115.154	DNS	78	Standard query 0x061c A outlook.office.com
1571	14.318861	106.51.115.154	192.168.0.8	DNS	236	Standard query response 0x061c A outlook.office.com CNAME substrate.office.com CNAME substrate.ms-acdc.offi...
3171	30.671268	192.168.0.8	106.51.115.154	DNS	87	Standard query 0x0001 PTR 154.115.51.106.in-addr.arpa
3174	30.687630	106.51.115.154	192.168.0.8	DNS	121	Standard query response 0x0001 PTR 154.115.51.106.in-addr.arpa PTR broadband.actcorp.in
3177	30.711259	192.168.0.8	106.51.115.154	DNS	78	Standard query 0x0002 A www.unimelb.edu.au
3218	31.086038	106.51.115.154	192.168.0.8	DNS	147	Standard query response 0x0002 A www.unimelb.edu.au CNAME gtm-cms.unimelb.edu.au CNAME uom.squizedge.net A ...
3220	31.101569	192.168.0.8	106.51.115.154	DNS	78	Standard query 0x0003 AAAA www.unimelb.edu.au
3222	31.125823	106.51.115.154	192.168.0.8	DNS	216	Standard query response 0x0003 AAAA www.unimelb.edu.au CNAME gtm-cms.unimelb.edu.au CNAME uom.squizedge.net...
3381	32.871673	192.168.0.8	106.51.115.154	DNS	83	Standard query 0xafd7 A ctldl.windowsupdate.com
3382	32.878558	106.51.115.154	192.168.0.8	DNS	306	Standard query response 0xafd7 A ctldl.windowsupdate.com CNAME au-bg-shim.trafficmanager.net CNAME audownlo...

> [Timestamps]
▼ Domain Name System (response)
Transaction ID: 0x0003
> Flags: 0x0100 Standard query response, No error
Questions: 1
Answer RRs: 2
Authority RRs: 1
Additional RRs: 0
▼ Queries
> www.unimelb.edu.au: type AAAA, class IN
▼ Answers