Roll No:19P-0061

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Section: 5B

Lab No: 01

1. Ipconfig

```
Windows IP Configuration


Wireless LAN adapter Wi-Fi:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 3:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 4:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2400:adcc:100:8900:ccb:d0dd:5c14:5c79
   Temporary IPv6 Address. . . . . . : 2400:adcc:100:8900:e88a:70a:5d99:eda4
   Link-local IPv6 Address . . . . . : fe80::ccb:d0dd:5c14:5c79%19
   Autoconfiguration IPv4 Address. . : 169.254.92.121
   Subnet Mask . . . . . . . . . . . : 255.255.0.0
   Default Gateway . . . . . . . . . : fe80::1%19

C:\Users\moham>
```

2. ipconfig/all

```
C:\Users\moham>ipconfig /all

Windows IP Configuration

    Host Name . . . . . . . . . . . . : DESKTOP-AII2QDM
    Primary Dns Suffix  . . . . . . . :
    Node Type . . . . . . . . . . . . : Hybrid
    IP Routing Enabled. . . . . . . . : No
    WINS Proxy Enabled. . . . . . . . : No

Wireless LAN adapter Wi-Fi:

    Media State . . . . . . . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
    Description . . . . . . . . . . . : Intel(R) Centrino(R) Advanced-N 6205
    Physical Address. . . . . . . . . : A4-4E-31-E0-E0-B4
    DHCP Enabled. . . . . . . . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes

Wireless LAN adapter Local Area Connection* 3:

    Media State . . . . . . . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
    Description . . . . . . . . . . . : Microsoft Wi-Fi Direct Virtual Adapter #2
    Physical Address. . . . . . . . . : A4-4E-31-E0-E0-B5
    DHCP Enabled. . . . . . . . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes

Wireless LAN adapter Local Area Connection* 4:

    Media State . . . . . . . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :
    Description . . . . . . . . . . . : Microsoft Wi-Fi Direct Virtual Adapter #3
    Physical Address. . . . . . . . . : A6-4E-31-E0-E0-B4
    DHCP Enabled. . . . . . . . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . :
    Description . . . . . . . . . . . : Intel(R) 82579LM Gigabit Network Connection
    Physical Address. . . . . . . . . : 3C-97-0E-DC-49-7E
    DHCP Enabled. . . . . . . . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes
    IPv6 Address. . . . . . . . . . . : 2400:adcc:100:8900:ccb:d0dd:5c14:5c79(Preferred)
    Temporary IPv6 Address. . . . . . : 2400:adcc:100:8900:e88a:70a:5d99:eda4(Preferred)
    Link-local IPv6 Address . . . . . : fe80::ccb:d0dd:5c14:5c79%19(Preferred)
    Autoconfiguration IPv4 Address. . : 169.254.92.121(Preferred)
    Subnet Mask . . . . . . . . . . . : 255.255.0.0
    Default Gateway . . . . . . . . . : fe80::1%19
    DHCPv6 IAID . . . . . . . . . . . : 322737934
    DHCPv6 Client DUID. . . . . . . . : 00-01-00-01-28-91-06-82-3C-97-0E-DC-49-7E
    DNS Servers . . . . . . . . . . . : fe80::1%19
    NetBIOS over Tcpip. . . . . . . . : Enabled

C:\Users\moham>
```

3. **ipconfig /all | findstr /v 00-00-00 | findstr Physical**
4. **ipconfig /all | findstr v4**

```
C:\Users\moham>ipconfig /all | findstr /v 00-00-00 | findstr Physical
   Physical Address. . . . . . . . . : A4-4E-31-E0-E0-B5
   Physical Address. . . . . . . . . : A6-4E-31-E0-E0-B4
   Physical Address. . . . . . . . . : 3C-97-0E-DC-49-7E
   Physical Address. . . . . . . . . : A4-4E-31-E0-E0-B4

C:\Users\moham>
C:\Users\moham>
C:\Users\moham>ipconfig /all | findstr v4
   IPv4 Address. . . . . . . . . . . : 192.168.100.100(Preferred)
   IPv4 Address. . . . . . . . . . . : 192.168.100.182(Preferred)

C:\Users\moham>
```

5. **ipconfig /all | findstr IPv4**

```
C:\Users\moham>
C:\Users\moham>
C:\Users\moham>ipconfig /all | findstr IPv4
   IPv4 Address. . . . . . . . . . . : 192.168.100.100(Preferred)
   IPv4 Address. . . . . . . . . . . : 192.168.100.182(Preferred)

C:\Users\moham>
```

6. ipconfig /release


```
C:\WINDOWS\system32\cmd.exe

C:\Users\moham>ipconfig /release

Windows IP Configuration

No operation can be performed on Local Area Connection* 3 while it has its media disconnected.
No operation can be performed on Local Area Connection* 4 while it has its media disconnected.

Wireless LAN adapter Local Area Connection* 3:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 4:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2400:adcc:100:8900:ccb:d0dd:5c14:5c79
   Temporary IPv6 Address. . . . . . : 2400:adcc:100:8900:e88a:70a:5d99:eda4
   Link-local IPv6 Address . . . . . : fe80::ccb:d0dd:5c14:5c79%19
   Default Gateway . . . . . . . . . : fe80::1%19

Wireless LAN adapter Wi-Fi:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2400:adcc:100:8900::4
   IPv6 Address. . . . . . . . . . . : 2400:adcc:100:8900:34b9:d0a9:e636:3613
   Temporary IPv6 Address. . . . . . : 2400:adcc:100:8900:7513:cdaa:fdcc:7366
   Link-local IPv6 Address . . . . . : fe80::34b9:d0a9:e636:3613%6
   Default Gateway . . . . . . . . . : fe80::1%6

C:\Users\moham>
```

7. ipconfig /all | displaydns

```
C:\Users\moham>ipconfig /displaydns

Windows IP Configuration

    play.google.com
    ----------------------------------------
    Record Name . . . . . : play.google.com
    Record Type . . . . . : 28
    Time To Live  . . . . : 266
    Data Length . . . . . : 16
    Section . . . . . . . : Answer
    AAAA Record . . . . . : 2a00:1450:4019:806::200e


    ssl.gstatic.com
    ----------------------------------------
    Record Name . . . . . : ssl.gstatic.com
    Record Type . . . . . : 28
    Time To Live  . . . . : 57
    Data Length . . . . . : 16
    Section . . . . . . . : Answer
    AAAA Record . . . . . : 2a00:1450:4019:801::2003


    signaler-pa.clients6.google.com
    ----------------------------------------
    Record Name . . . . . : signaler-pa.clients6.google.com
    Record Type . . . . . : 28
    Time To Live  . . . . : 213
    Data Length . . . . . : 16
    Section . . . . . . . : Answer
    AAAA Record . . . . . : 2a00:1450:4019:806::200a


    chat.google.com
    ----------------------------------------
    Record Name . . . . . : chat.google.com
    Record Type . . . . . : 28
    Time To Live  . . . . : 78
    Data Length . . . . . : 16
    Section . . . . . . . : Answer
    AAAA Record . . . . . : 2a00:1450:4019:809::200e


    media.fpew1-1.fna.whatsapp.net
    ----------------------------------------
    Record Name . . . . . : media.fpew1-1.fna.whatsapp.net
    Record Type . . . . . : 28
    Time To Live  . . . . : 2
    Data Length . . . . . : 16
    Section . . . . . . . : Answer
    AAAA Record . . . . . : 2400:adc0:c111:0:face:b00c:3333:7020
```

8. ipconfig /release6

```
C:\Users\moham>ipconfig /release6

Windows IP Configuration

No operation can be performed on Wi-Fi while it has its media disconnected.
No operation can be performed on Local Area Connection* 3 while it has its media disconnected.
No operation can be performed on Local Area Connection* 4 while it has its media disconnected.

Wireless LAN adapter Wi-Fi:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 3:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 4:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2400:adcc:100:8900:ccb:d0dd:5c14:5c79
   Temporary IPv6 Address. . . . . . : 2400:adcc:100:8900:e88a:70a:5d99:eda4
   Link-local IPv6 Address . . . . . : fe80::ccb:d0dd:5c14:5c79%19
   Autoconfiguration IPv4 Address. . : 169.254.92.121
   Subnet Mask . . . . . . . . . . . : 255.255.0.0
   Default Gateway . . . . . . . . . : fe80::1%19

C:\Users\moham>
```

9. ipconfig /flushdns

```
C:\Users\moham>ipconfig /flushdns

Windows IP Configuration

Successfully flushed the DNS Resolver Cache.

C:\Users\moham>
```

10. ipconfig /all >D:\My_ipconfig-results.txt

```
C:\Users\moham>ipconfig /all >D:\My_ipconfig-results.txt

C:\Users\moham>
```

11.ipconfig /? >E:\My_TEST.txt

My_TEST - Notepad

File   Edit   Format   View   Help

```
USAGE:
    ipconfig [/allcompartments] [/? | /all |
                                 /renew [adapter] | /release [adapter] |
                                 /renew6 [adapter] | /release6 [adapter] |
                                 /flushdns | /displaydns | /registerdns |
                                 /showclassid adapter |
                                 /setclassid adapter [classid] |
                                 /showclassid6 adapter |
                                 /setclassid6 adapter [classid] ]

where
    adapter             Connection name
                        (wildcard characters * and ? allowed, see examples)

    Options:
        /?              Display this help message
        /all            Display full configuration information.
        /release        Release the IPv4 address for the specified adapter.
        /release6       Release the IPv6 address for the specified adapter.
        /renew          Renew the IPv4 address for the specified adapter.
        /renew6         Renew the IPv6 address for the specified adapter.
        /flushdns       Purges the DNS Resolver cache.
        /registerdns    Refreshes all DHCP leases and re-registers DNS names
        /displaydns     Display the contents of the DNS Resolver Cache.
        /showclassid    Displays all the dhcp class IDs allowed for adapter.
        /setclassid     Modifies the dhcp class id.
        /showclassid6   Displays all the IPv6 DHCP class IDs allowed for adapter.
        /setclassid6    Modifies the IPv6 DHCP class id.


The default is to display only the IP address, subnet mask and
default gateway for each adapter bound to TCP/IP.

For Release and Renew, if no adapter name is specified, then the IP address
leases for all adapters bound to TCP/IP will be released or renewed.

For Setclassid and Setclassid6, if no ClassId is specified, then the ClassId is removed.

Examples:
    > ipconfig                      ... Show information
    > ipconfig /all                 ... Show detailed information
    > ipconfig /renew               ... renew all adapters
    > ipconfig /renew EL*           ... renew any connection that has its
                                        name starting with EL
    > ipconfig /release *Con*       ... release all matching connections,
                                        eg. "Wired Ethernet Connection 1" or
                                            "Wired Ethernet Connection 2"
    > ipconfig /allcompartments     ... Show information about all
                                        compartments
    > ipconfig /allcompartments /all ... Show detailed information about all
                                        compartments
```

12.nslookup flex.nu.edu.pk

```
C:\Users\moham>nslookup flex.nu.edu.pk
Server:  UnKnown
Address: fe80::1

Non-authoritative answer:
Name:    flex.nu.edu.pk
Address: 210.56.9.83


C:\Users\moham>
```

13.ipconfig /renew

```
C:\Users\moham>ipconfig /renew

Windows IP Configuration

No operation can be performed on Wi-Fi while it has its media disconnected.
No operation can be performed on Local Area Connection* 3 while it has its media disconnected.
No operation can be performed on Local Area Connection* 4 while it has its media disconnected.

Wireless LAN adapter Wi-Fi:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 3:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 4:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2400:adcc:100:8900:ccb:d0dd:5c14:5c79
   Temporary IPv6 Address. . . . . . : 2400:adcc:100:8900:e88a:70a:5d99:eda4
   Link-local IPv6 Address . . . . . : fe80::ccb:d0dd:5c14:5c79%19
   IPv4 Address. . . . . . . . . . . : 192.168.100.100
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : fe80::1%19
                                       192.168.100.1

C:\Users\moham>
C:\Users\moham>
```

14.ipconfig /renew6

```
C:\Users\moham>ipconfig /renew6

Windows IP Configuration

No operation can be performed on Wi-Fi while it has its media disconnected.
No operation can be performed on Local Area Connection* 3 while it has its media disconnected.
No operation can be performed on Local Area Connection* 4 while it has its media disconnected.

Wireless LAN adapter Wi-Fi:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 3:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 4:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2400:adcc:100:8900::3
   IPv6 Address. . . . . . . . . . . : 2400:adcc:100:8900:ccb:d0dd:5c14:5c79
   Temporary IPv6 Address. . . . . . : 2400:adcc:100:8900:e88a:70a:5d99:eda4
   Link-local IPv6 Address . . . . . : fe80::ccb:d0dd:5c14:5c79%19
   IPv4 Address. . . . . . . . . . . : 192.168.100.100
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : fe80::1%19
                                       192.168.100.1

C:\Users\moham>
```

15.ipconfig /nslookup 210.56.9.83

```
C:\Users\moham>nslookup 210.56.9.83
Server:   UnKnown
Address:  fe80::1

Name:     210-56-9-83.Dialup.isb.comsats.net.pk
Address:  210.56.9.83


C:\Users\moham>
```