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1.ipconfig

```
C:\Windows\System32>ipconfig

Windows IP Configuration


Ethernet adapter vEthernet (WSL (Hyper-V firewall)):

   Connection-specific DNS Suffix  . :
   Link-local IPv6 Address . . . . . : fe80::8c68:d3b4:b060:6a53%33
   IPv4 Address. . . . . . . . . . . : 172.21.80.1
   Subnet Mask . . . . . . . . . . . : 255.255.240.0
   Default Gateway . . . . . . . . . :

Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . : VESITSTUDENT
   Link-local IPv6 Address . . . . . : fe80::7a9b:89b4:987a:7650%18
   IPv4 Address. . . . . . . . . . . : 192.168.43.111
   Subnet Mask . . . . . . . . . . . : 255.255.240.0
   Default Gateway . . . . . . . . . : 192.168.32.1

Wireless LAN adapter Local Area Connection* 1:

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

Wireless LAN adapter Wi-Fi:
```

2.ipconfig /all

```
   Autoconfiguration Enabled . . . . : Yes

C:\Windows\System32>ipconfig /all

Windows IP Configuration

   Host Name . . . . . . . . . . . . : LAPTOP-L4QVQDMG
   Primary Dns Suffix  . . . . . . . :
   Node Type . . . . . . . . . . . . : Hybrid
   IP Routing Enabled. . . . . . . . : No
   WINS Proxy Enabled. . . . . . . . : No
   DNS Suffix Search List. . . . . . : VESITSTUDENT

Ethernet adapter vEthernet (WSL (Hyper-V firewall)):

   Connection-specific DNS Suffix  . :
   Description . . . . . . . . . . . : Hyper-V Virtual Ethernet Adapter
   Physical Address. . . . . . . . . : 00-15-5D-CC-3B-C3
   DHCP Enabled. . . . . . . . . . . : No
   Autoconfiguration Enabled . . . . : Yes
   Link-local IPv6 Address . . . . . : fe80::8c68:d3b4:b060:6a53%33(Preferred)
   IPv4 Address. . . . . . . . . . . : 172.21.80.1(Preferred)
   Subnet Mask . . . . . . . . . . . : 255.255.240.0
   Default Gateway . . . . . . . . . :
   DHCPv6 IAID . . . . . . . . . . . : 553653597
   DHCPv6 Client DUID. . . . . . . . : 00-01-00-01-2D-8A-B4-B0-40-C2-BA-F2-64-75
   NetBIOS over Tcpip. . . . . . . . : Enabled

Ethernet adapter Ethernet:
```

3.PING

```
C:\Windows\System32>ping www.google.com

Pinging www.google.com [142.250.182.228] with 32 bytes of data:
Reply from 142.250.182.228: bytes=32 time=1ms TTL=117
Reply from 142.250.182.228: bytes=32 time=1ms TTL=117
Reply from 142.250.182.228: bytes=32 time=1ms TTL=117
Reply from 142.250.182.228: bytes=32 time=2ms TTL=117

Ping statistics for 142.250.182.228:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\Windows\System32>
```

4.tracert

```
C:\Windows\System32>tracert google.com

Tracing route to google.com [142.250.199.174]
over a maximum of 30 hops:

  1    <1 ms    <1 ms    <1 ms  192.168.32.1
  2    <1 ms    <1 ms    <1 ms  103.197.221.161
  3     1 ms     1 ms     1 ms  103.197.223.17
  4    <1 ms    <1 ms    <1 ms  183.87.161.249.server.jprdigital.in [183.87.161.249]
  5     1 ms    <1 ms    <1 ms  72.14.209.97
  6     2 ms     1 ms     1 ms  192.178.111.151
  7     1 ms     1 ms     1 ms  108.170.234.157
  8     1 ms     1 ms     1 ms  bom07s37-in-f14.1e100.net [142.250.199.174]

Trace complete.

C:\Windows\System32>
```

5.nslookup

```
C:\Windows\System32>nslookup yahoo.com
Server:  UnKnown
Address:  192.168.32.1

Non-authoritative answer:
Name:    yahoo.com
Addresses:  2001:4998:44:3507::8001
          2001:4998:24:120d::1:0
          2001:4998:44:3507::8000
          2001:4998:124:1507::f000
          2001:4998:24:120d::1:1
          2001:4998:124:1507::f001
          98.137.11.163
          74.6.231.21
          74.6.143.26
          98.137.11.164
          74.6.231.20
          74.6.143.25


C:\Windows\System32>
                              74.6.143.26
```

6.dig


```
s   📧 Terminal ▾                Mon 20:20                      🖧

                          student@ubuntu: ~

File  Edit  View  Search  Terminal  Help
student@ubuntu:~$ dig google.com

; <<>> DiG 9.11.3-1ubuntu1.3-Ubuntu <<>> google.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 31945
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;google.com.                        IN      A

;; ANSWER SECTION:
google.com.               5         IN      A        142.251.42.78

;; Query time: 1 msec
;; SERVER: 127.0.0.53#53(127.0.0.53)
;; WHEN: Mon Sep 30 20:20:22 PDT 2024
;; MSG SIZE  rcvd: 55

student@ubuntu:~$ S
```

7.whois


```
sushant@DESKTOP-TUH3NL7:~$ whois
Usage: whois [OPTION]... OBJECT...

-h HOST, --host HOST    connect to server HOST
-p PORT, --port PORT    connect to PORT
-I                      query whois.iana.org and follow its referral
-H                      hide legal disclaimers
      --verbose         explain what is being done
      --no-recursion    disable recursion from registry to registrar servers
      --help            display this help and exit
      --version         output version information and exit

These flags are supported by whois.ripe.net and some RIPE-like servers:
-l                      find the one level less specific match
-L                      find all levels less specific matches
-m                      find all one level more specific matches
-M                      find all levels of more specific matches
-c                      find the smallest match containing a mnt-irt attribut
e
-x                      exact match
-b                      return brief IP address ranges with abuse contact
-B                      turn off object filtering (show email addresses)
-G                      turn off grouping of associated objects
-d                      return DNS reverse delegation objects too
-i ATTR[,ATTR]...       do an inverse look-up for specified ATTRibutes
-T TYPE[,TYPE]...       only look for objects of TYPE
-K                      only primary keys are returned
-r                      turn off recursive look-ups for contact information
-R                      force to show local copy of the domain object even
                        if it contains referral
-a                      also search all the mirrored databases
-s SOURCE[,SOURCE]...   search the database mirrored from SOURCE
-g SOURCE:FIRST-LAST    find updates from SOURCE from serial FIRST to LAST
-t TYPE                 request template for object of TYPE
-v TYPE                 request verbose template for object of TYPE
-q [version|sources|types]  query specified server info
sushant@DESKTOP-TUH3NL7:~$ |
```