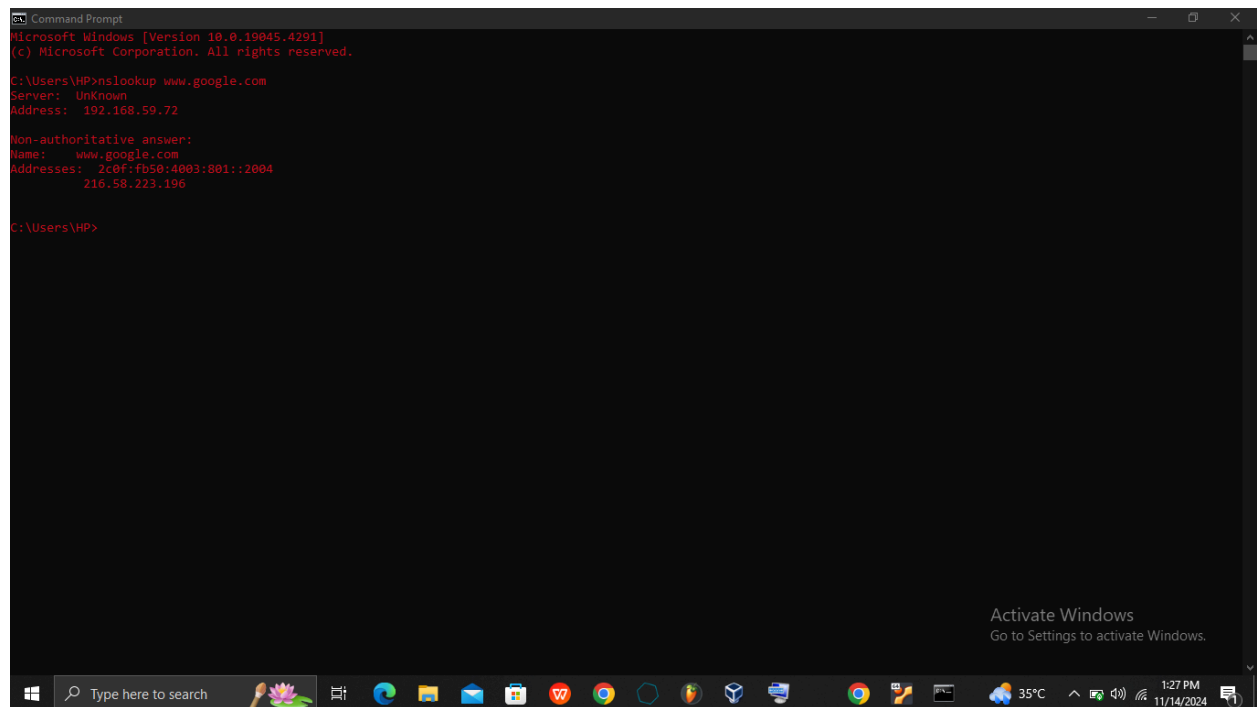


LAB 16

Nslookup Command

Tool: Windows or Linux

STEP 1: We will begin by finding the IP address of a host. To do this, type the following:
nslookup **www.google.com**



```
Command Prompt
Microsoft Windows [Version 10.0.19045.4291]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>nslookup www.google.com
Server:      Unknown
Address:     192.168.59.72

Non-authoritative answer:
Name:       www.google.com
Addresses:  2c0f:fb50:4003:801::2004
           216.58.223.196

C:\Users\HP>
```

The screenshot shows a Windows Command Prompt window with a dark background. The title bar reads "Command Prompt". The text inside shows the execution of the 'nslookup www.google.com' command. The output displays the server as 'Unknown' at IP '192.168.59.72', followed by a 'Non-authoritative answer' section listing the name 'www.google.com' and its IP addresses: '2c0f:fb50:4003:801::2004' and '216.58.223.196'. The Windows taskbar is visible at the bottom with various application icons and a system tray showing the temperature as 35°C and the date as 11/14/2024.

STEP 2: We will now perform a reverse lookup which will match an IP address to a domain name. This is also called the DNS PTR record, and can be thought of as the exact opposite of the DNS A record. To do this type:

nslookup 216.58.223.196

```
C:\Users\HP>nslookup 216.58.223.196
Server:      Unknown
Address:     192.168.59.72

Name:       los82s03-in-f4.1e100.net
Address:    216.58.223.196
```

```
C:\Users\HP>
```

STEP 3: We can also find any “Mail eXchange” servers for a particular domain. To do this, type:

nslookup -querytype=mx google.com

```
C:\Users\HP>nslookup -querytype=mx google.com
Server:      Unknown
Address:     192.168.59.72

Non-authoritative answer:
google.com   MX preference = 10, mail exchanger = smtp.google.com
```

```
C:\Users\HP>
```

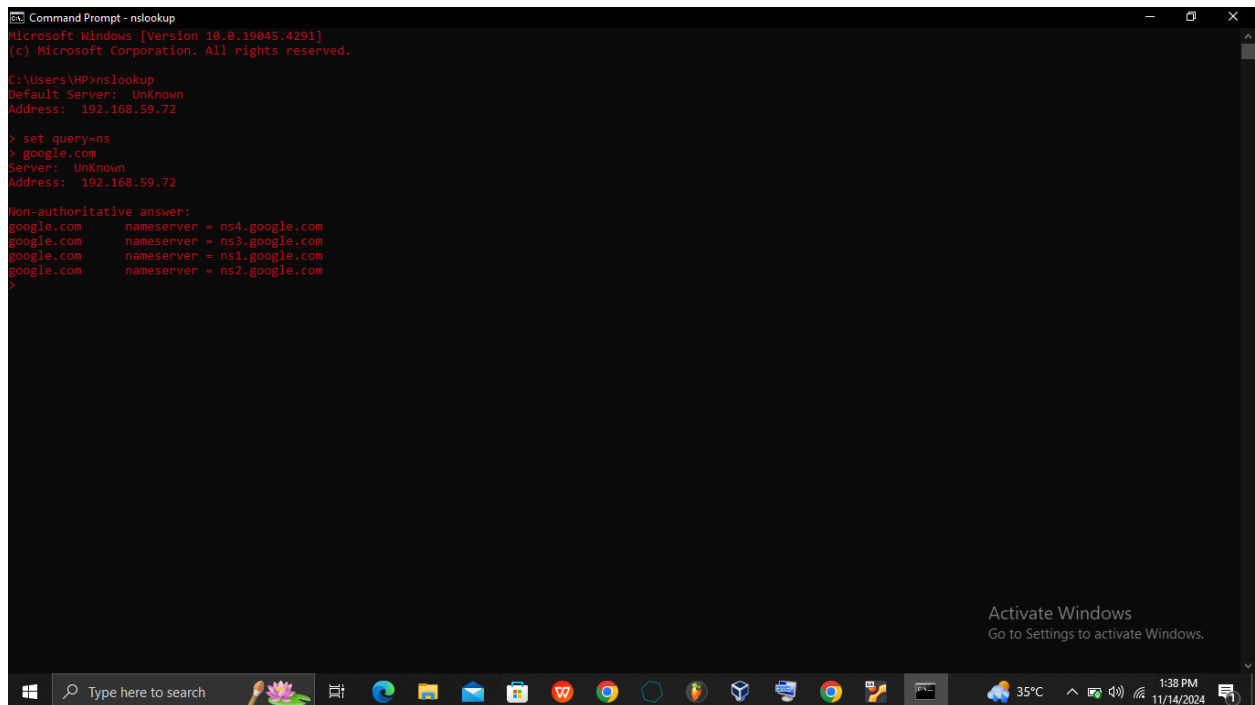
Activate Windows
Go to Settings to activate Windows.



STEP 4: We can also find the “Name Servers” responsible for a domain. In other words, only those servers which are authoritative sources to keep DNS records of the google.com domain name. To do this, first open an interactive console by typing “nslookup”. Then, type:

```
set query=ns
```

Then, type the domain name into the terminal.



```
Command Prompt - nslookup
Microsoft Windows [Version 10.0.19045.4291]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP>nslookup
Default Server: UnKnown
Address: 192.168.59.72

> set query=ns
> google.com
Server: UnKnown
Address: 192.168.59.72

Non-authoritative answer:
google.com    nameserver = ns4.google.com
google.com    nameserver = ns3.google.com
google.com    nameserver = ns1.google.com
google.com    nameserver = ns2.google.com
>
```

The screenshot shows a Windows Command Prompt window titled "Command Prompt - nslookup". The window displays the output of the nslookup command for the domain google.com. The output shows the default server as UnKnown with address 192.168.59.72. After setting the query type to ns and querying google.com, the output shows a non-authoritative answer with four nameservers: ns4.google.com, ns3.google.com, ns1.google.com, and ns2.google.com. The Windows taskbar is visible at the bottom, showing the search bar, task view button, and various application icons. The system tray shows the temperature as 35°C, the time as 1:38 PM, and the date as 11/14/2024.

STEP 5: It is possible to access domain verification data by making a DNS TXT query.
nslookup -querytype=txt google.com

```
cmd Command Prompt
C:\Users\HP>nslookup -querytype=txt google.com
Server:      Unknown
Address:     192.168.59.72

Non-authoritative answer:
google.com   text =
            "apple-domain-verification=30afIBcvSu0V2PLX"
google.com   text =
            "v=spf1 include:_spf.google.com ~all"
google.com   text =
            "onetrust-domain-verification=de01ed21f2fa4d8781cbc3ffb89cf4ef"
google.com   text =
            "google-site-verification=41bFug8-wXLQ_S7vsXVomSTVamu0XB1VAzpR5I287D0"
google.com   text =
            "docuSign=1b0a6754-49b1-4db5-8540-d2c1264b289"
google.com   text =
            "google-site-verification=TV9-DBe4R80X4v0M4U_bd_J9cp0JM0nikft0jAgjmsQ"
google.com   text =
            "globalsign-smime-dv=CDYX+XFHw2wml6/Cb8+59Bsh3IKzUr6c1128PvqKX8="
google.com   text =
            "google-site-verification=w08N7i1J7NTkezJ49swvMM48f8_9xveREV4o8-0Hf5o"
google.com   text =
            "docuSign=05958488-4752-4ef2-95eb-aa7ba8a3bd0e"
google.com   text =
            "facebook-domain-verification=22rm5S1cu4k0ab0bxsw536tlds4h95"
google.com   text =
            "cisco-ci-domain-verification=479146de172eb01dde38b1a455ab9e8bb51542ddd7f1fa298557dfa7b22d963"
google.com   text =
            "MS=E4A68B9A828B96708CE15412F62916164C08208B"

C:\Users\HP>
```

Activate Windows
Go to Settings to activate Windows.

35°C 1:40 PM 11/14/2024