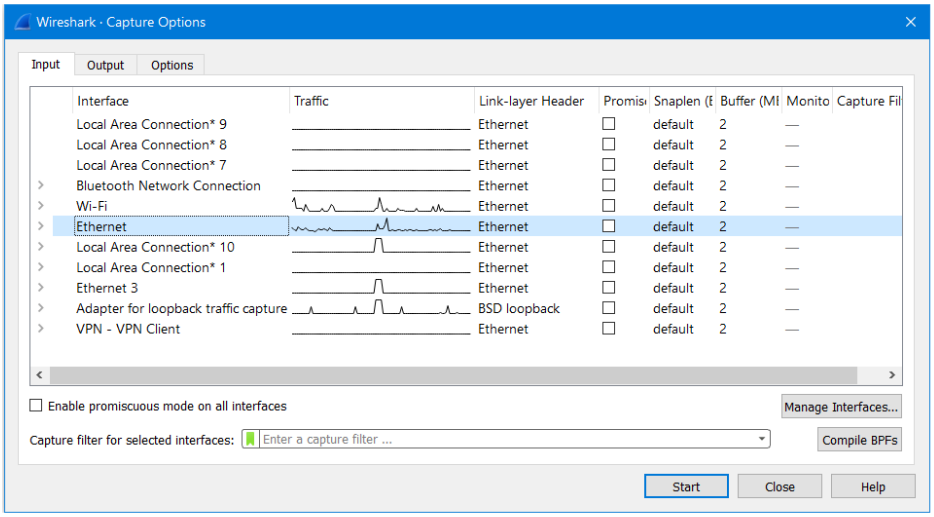
CNS - Wireshark Assignment

Name: Vatsalkumar Sojitra
Roll: 197286
Section C

Q1 To demonstrate how to sniff for router traffic by using Wireshark

Step 1: Select Ethernet to capture packets on LAN

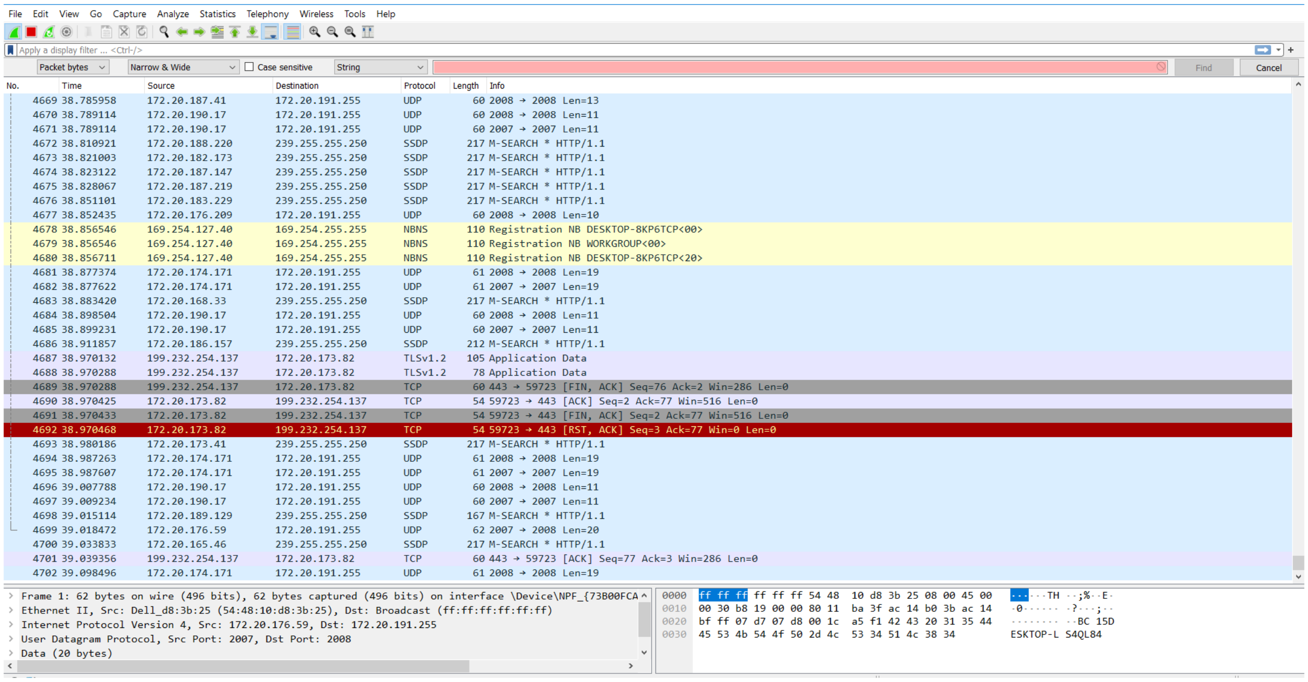


	Interface	Traffic	Link-layer Header	Promis	Snaplen (E	Buffer (MI	Monito	Capture Fil
	Local Area Connection* 9		Ethernet	□	default	2	—	
	Local Area Connection* 8		Ethernet	□	default	2	—	
	Local Area Connection* 7		Ethernet	□	default	2	—	
>	Bluetooth Network Connection		Ethernet	□	default	2	—	
>	Wi-Fi		Ethernet	□	default	2	—	
>	Ethernet		Ethernet	□	default	2	—	
>	Local Area Connection* 10		Ethernet	□	default	2	—	
>	Local Area Connection* 1		Ethernet	□	default	2	—	
>	Ethernet 3		Ethernet	□	default	2	—	
>	Adapter for loopback traffic capture		BSD loopback	□	default	2	—	
>	VPN - VPN Client		Ethernet	□	default	2	—	

□ Enable promiscuous mode on all interfaces

Capture filter for selected interfaces: Enter a capture filter ...

Step 2: Different types of Packets captures, highlighted by different colors

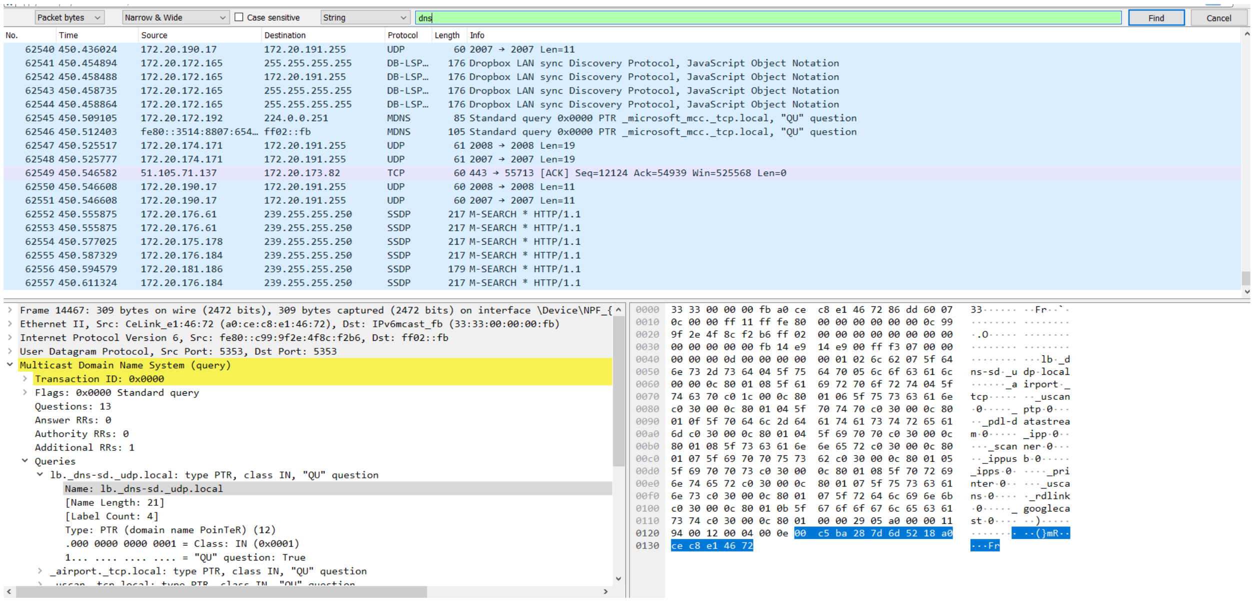


No.	Time	Source	Destination	Protocol	Length	Info
4669	38.785958	172.20.187.41	172.20.191.255	UDP	60	2008 → 2008 Len=13
4670	38.789114	172.20.190.17	172.20.191.255	UDP	60	2008 → 2008 Len=11
4671	38.789114	172.20.190.17	172.20.191.255	UDP	60	2007 → 2007 Len=11
4672	38.810921	172.20.188.220	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
4673	38.821003	172.20.182.173	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
4674	38.823122	172.20.187.147	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
4675	38.828067	172.20.187.219	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
4676	38.851101	172.20.183.229	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
4677	38.852435	172.20.176.209	172.20.191.255	UDP	60	2008 → 2008 Len=10
4678	38.856546	169.254.127.40	169.254.255.255	NBNS	110	Registration NB DESKTOP-8KP6TCP<00>
4679	38.856546	169.254.127.40	169.254.255.255	NBNS	110	Registration NB WORKGROUP<00>
4680	38.856711	169.254.127.40	169.254.255.255	NBNS	110	Registration NB DESKTOP-8KP6TCP<20>
4681	38.877374	172.20.174.171	172.20.191.255	UDP	61	2008 → 2008 Len=19
4682	38.877622	172.20.174.171	172.20.191.255	UDP	61	2007 → 2007 Len=19
4683	38.883420	172.20.168.33	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
4684	38.898504	172.20.190.17	172.20.191.255	UDP	60	2008 → 2008 Len=11
4685	38.899231	172.20.190.17	172.20.191.255	UDP	60	2007 → 2007 Len=11
4686	38.911857	172.20.186.157	239.255.255.250	SSDP	212	M-SEARCH * HTTP/1.1
4687	38.970132	199.232.254.137	172.20.173.82	TLSv1.2	105	Application Data
4688	38.970288	199.232.254.137	172.20.173.82	TLSv1.2	78	Application Data
4689	38.970288	199.232.254.137	172.20.173.82	TCP	60	443 → 59723 [FIN, ACK] Seq=76 Ack=2 Win=286 Len=0
4690	38.970425	172.20.173.82	199.232.254.137	TCP	54	59723 → 443 [ACK] Seq=2 Ack=77 Win=516 Len=0
4691	38.970433	172.20.173.82	199.232.254.137	TCP	54	59723 → 443 [FIN, ACK] Seq=2 Ack=77 Win=516 Len=0
4692	38.970468	172.20.173.82	199.232.254.137	TCP	54	59723 → 443 [RST, ACK] Seq=3 Ack=77 Win=0 Len=0
4693	38.980186	172.20.173.41	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
4694	38.987263	172.20.174.171	172.20.191.255	UDP	61	2008 → 2008 Len=19
4695	38.987607	172.20.174.171	172.20.191.255	UDP	61	2007 → 2007 Len=19
4696	39.007788	172.20.190.17	172.20.191.255	UDP	60	2008 → 2008 Len=11
4697	39.009234	172.20.190.17	172.20.191.255	UDP	60	2007 → 2007 Len=11
4698	39.015114	172.20.189.129	239.255.255.250	SSDP	167	M-SEARCH * HTTP/1.1
4699	39.018472	172.20.176.59	172.20.191.255	UDP	62	2007 → 2008 Len=20
4700	39.033833	172.20.165.46	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
4701	39.039356	199.232.254.137	172.20.173.82	TCP	60	443 → 59723 [ACK] Seq=77 Ack=3 Win=286 Len=0
4702	39.098496	172.20.174.171	172.20.191.255	UDP	61	2008 → 2008 Len=19

```
> Frame 1: 62 bytes on wire (496 bits), 62 bytes captured (496 bits) on interface \Device\NPF_{73B00FCA
> Ethernet II, Src: Dell_d8:3b:25 (54:48:10:d8:3b:25), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
> Internet Protocol Version 4, Src: 172.20.176.59, Dst: 172.20.191.255
> User Datagram Protocol, Src Port: 2007, Dst Port: 2008
> Data (20 bytes)
```

```
0000  ff ff ff ff ff ff 54 48  10 d8 3b 25 08 00 45 00   ······TH ··;%··E·
0010  00 30 b8 19 00 00 80 11  ba 3f ac 14 b0 3b ac 14   ·0······ ·?···;··
0020  bf ff 07 d7 07 d8 00 1c  a5 f1 42 43 20 31 35 44   ········ ··BC 15D
0030  45 53 4b 54 4f 50 2d 4c  53 34 51 4c 38 34         ESKTOP-L S4QL84
```

Step3 : Filtered search, highlighted in green, and result produced in white box below

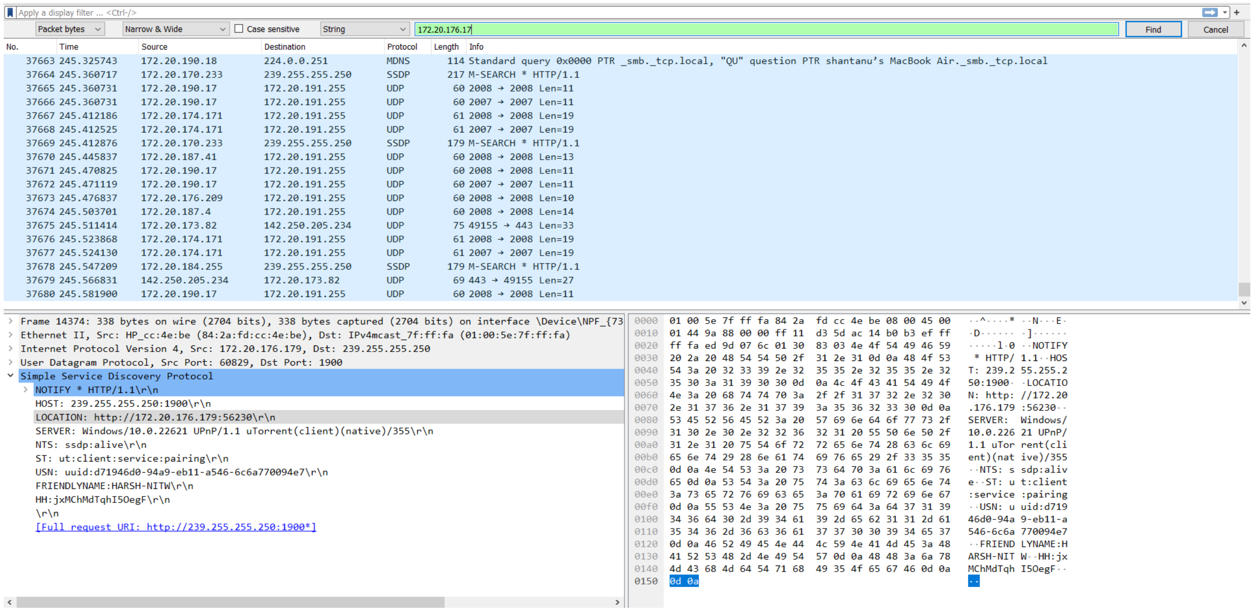


Packet bytes | Narrow & Wide | □ Case sensitive | String | dns

```
No.   Time       Source                Destination      Protocol Length Info
62540 450.436024 172.20.190.17         172.20.191.255   UDP       60 2007 → 2007 Len=11
62541 450.454894 172.20.172.165        255.255.255.255  DB-LSP…  176 Dropbox LAN sync Discovery Protocol, JavaScript Object Notation
62542 450.458488 172.20.172.165        172.20.191.255   DB-LSP…  176 Dropbox LAN sync Discovery Protocol, JavaScript Object Notation
62543 450.458735 172.20.172.165        255.255.255.255  DB-LSP…  176 Dropbox LAN sync Discovery Protocol, JavaScript Object Notation
62544 450.458864 172.20.172.165        255.255.255.255  DB-LSP…  176 Dropbox LAN sync Discovery Protocol, JavaScript Object Notation
62545 450.509105 172.20.172.192        224.0.0.251      MDNS      85 Standard query 0x0000 PTR _microsoft_mcc._tcp.local, "QU" question
62546 450.512403 fe80::3514:8807:654…  ff02::fb         MDNS     105 Standard query 0x0000 PTR _microsoft_mcc._tcp.local, "QU" question
62547 450.525517 172.20.174.171        172.20.191.255   UDP       61 2008 → 2008 Len=19
62548 450.525777 172.20.174.171        172.20.191.255   UDP       61 2007 → 2007 Len=19
62549 450.546582 51.105.71.137         172.20.173.82    TCP       60 443 → 55713 [ACK] Seq=12124 Ack=54939 Win=525568 Len=0
62550 450.546608 172.20.190.17         172.20.191.255   UDP       60 2008 → 2008 Len=11
62551 450.546608 172.20.190.17         172.20.191.255   UDP       60 2007 → 2007 Len=11
62552 450.555875 172.20.176.61         239.255.255.250  SSDP     217 M-SEARCH * HTTP/1.1
62553 450.555875 172.20.176.61         239.255.255.250  SSDP     217 M-SEARCH * HTTP/1.1
62554 450.577025 172.20.175.178        239.255.255.250  SSDP     217 M-SEARCH * HTTP/1.1
62555 450.587329 172.20.176.184        239.255.255.250  SSDP     217 M-SEARCH * HTTP/1.1
62556 450.594579 172.20.181.186        239.255.255.250  SSDP     179 M-SEARCH * HTTP/1.1
62557 450.611324 172.20.176.184        239.255.255.250  SSDP     217 M-SEARCH * HTTP/1.1
```

```
> Frame 14467: 309 bytes on wire (2472 bits), 309 bytes captured (2472 bits) on interface \Device\NPF_{
> Ethernet II, Src: CeLink_e1:46:72 (a0:ce:c8:e1:46:72), Dst: IPv6mcast_fb (33:33:00:00:00:fb)
> Internet Protocol Version 6, Src: fe80::c99:9f2e:4f8c:f2b6, Dst: ff02::fb
> User Datagram Protocol, Src Port: 5353, Dst Port: 5353
v Multicast Domain Name System (query)
  > Transaction ID: 0x0000
  > Flags: 0x0000 Standard query
    Questions: 13
    Answer RRs: 0
    Authority RRs: 0
    Additional RRs: 1
  v Queries
    v lb._dns-sd._udp.local: type PTR, class IN, "QU" question
        Name: lb._dns-sd._udp.local
        [Name Length: 21]
        [Label Count: 4]
        Type: PTR (domain name PoinTeR) (12)
        .000 0000 0000 0001 = Class: IN (0x0001)
        1... .... .... .... = "QU" question: True
    > _airport._tcp.local: type PTR, class IN, "QU" question
```

```
0000  33 33 00 00 00 fb a0 ce  c8 e1 46 72 86 dd 60 07   33······ ··Fr··`·
0010  0c 00 00 ff 11 ff fe 80  00 00 00 00 00 00 0c 99   ········ ········
0020  9f 2e 4f 8c f2 b6 ff 02  00 00 00 00 00 00 00 00   ·.O····· ········
0030  00 00 00 00 00 fb 14 e9  14 e9 00 ff f3 07 00 00   ········ ········
0040  00 00 00 0d 00 00 00 00  00 01 02 6c 62 07 5f 64   ········ ···lb·_d
0050  6e 73 2d 73 64 04 5f 75  64 70 05 6c 6f 63 61 6c   ns-sd·_u dp·local
0060  00 00 0c 80 01 08 5f 61  69 72 70 6f 72 74 04 5f   ······_a irport·_
0070  74 63 70 c0 1c 00 0c 80  01 06 5f 75 73 63 61 6e   tcp····· ··_uscan
0080  c0 30 00 0c 80 01 04 5f  70 74 70 c0 30 00 0c 80   ·0·····_ ptp·0···
0090  01 0f 5f 70 64 6c 2d 64  61 74 61 73 74 72 65 61   ··_pdl-d atastrea
00a0  6d c0 30 00 0c 80 01 04  5f 69 70 70 c0 30 00 0c   m·0····· _ipp·0··
00b0  80 01 08 5f 73 63 61 6e  6e 65 72 c0 30 00 0c 80   ···_scan ner·0···
00c0  01 07 5f 69 70 70 75 73  62 c0 30 00 0c 80 01 05   ··_ippus b·0·····
00d0  5f 69 70 70 73 c0 30 00  0c 80 01 08 5f 70 72 69   _ipps·0· ····_pri
00e0  6e 74 65 72 c0 30 00 0c  80 01 07 5f 75 73 63 61   nter·0·· ···_usca
00f0  6e 73 c0 30 00 0c 80 01  07 5f 72 64 6c 69 6e 6b   ns·0···· ·_rdlink
0100  c0 30 00 0c 80 01 0b 5f  67 6f 6f 67 6c 65 63 61   ·0·····_ googleca
0110  73 74 c0 30 00 0c 80 01  00 00 29 05 a0 00 00 11   st·0···· ··)·····
0120  94 00 12 00 04 00 0e 00  c5 ba 28 7d 6d 52 18 a0   ········ ··(}mR··
0130  ce c8 e1 46 72                                      ···Fr
```



Apply a display filter … <Ctrl-/>

Packet bytes | Narrow & Wide | □ Case sensitive | String | 172.20.176.17

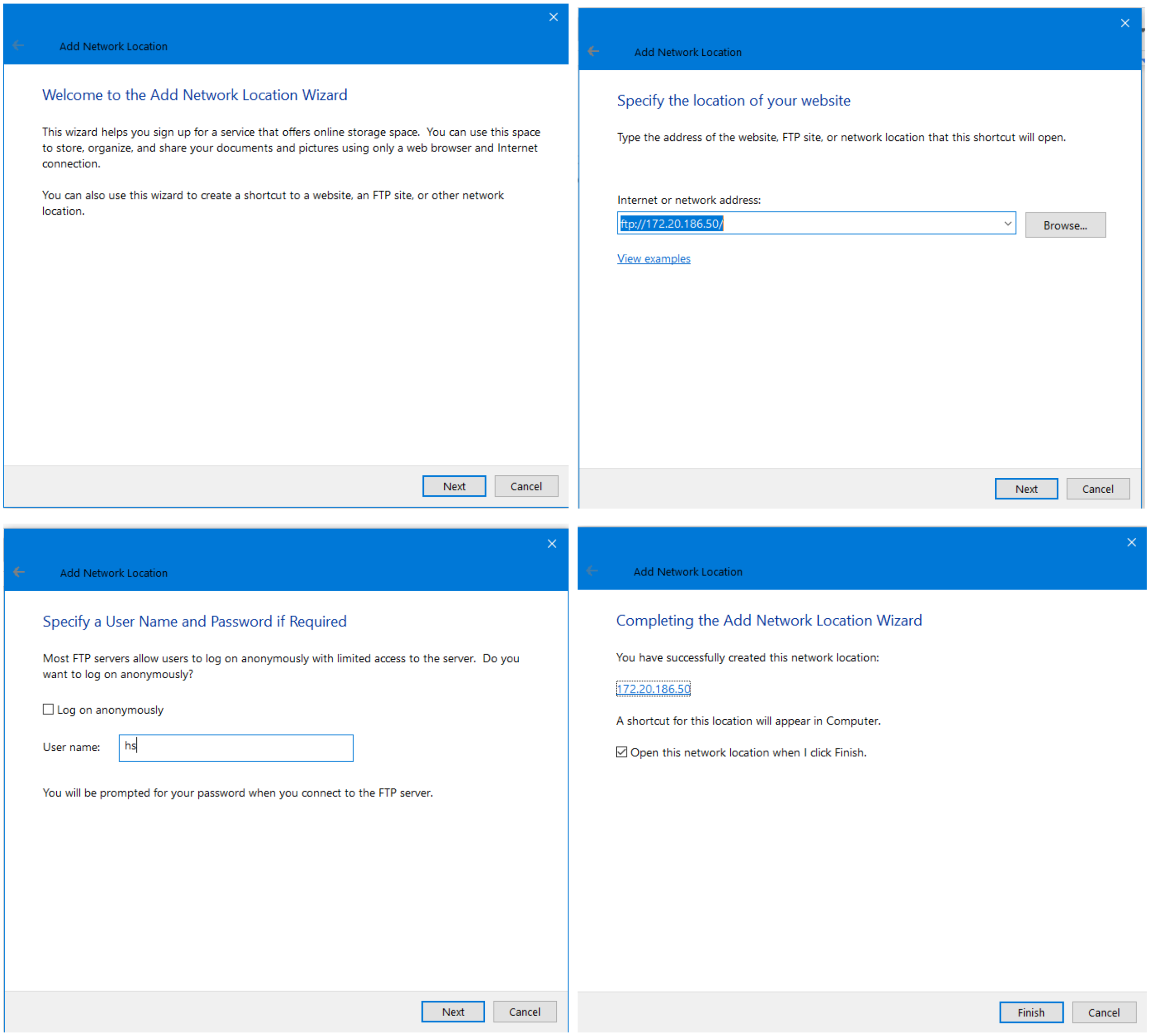
```
No.   Time       Source           Destination      Protocol Length Info
37663 245.325743 172.20.190.18    224.0.0.251      MDNS     114 Standard query 0x0000 PTR _smb._tcp.local, "QU" question PTR shantanu’s MacBook Air._smb._tcp.local
37664 245.360717 172.20.170.233   239.255.255.250  SSDP     217 M-SEARCH * HTTP/1.1
37665 245.360731 172.20.190.17    172.20.191.255   UDP       60 2008 → 2008 Len=11
37666 245.360731 172.20.190.17    172.20.191.255   UDP       60 2007 → 2007 Len=11
37667 245.412186 172.20.174.171   172.20.191.255   UDP       61 2008 → 2008 Len=19
37668 245.412525 172.20.174.171   172.20.191.255   UDP       61 2007 → 2007 Len=19
37669 245.412876 172.20.170.233   239.255.255.250  SSDP     179 M-SEARCH * HTTP/1.1
37670 245.445837 172.20.187.41    172.20.191.255   UDP       60 2008 → 2008 Len=13
37671 245.470825 172.20.190.17    172.20.191.255   UDP       60 2008 → 2008 Len=11
37672 245.471119 172.20.190.17    172.20.191.255   UDP       60 2007 → 2007 Len=11
37673 245.476837 172.20.176.209   172.20.191.255   UDP       60 2008 → 2008 Len=10
37674 245.503701 172.20.187.4     172.20.191.255   UDP       60 2008 → 2008 Len=14
37675 245.511414 172.20.173.82    142.250.205.234  UDP       75 49155 → 443 Len=33
37676 245.523868 172.20.174.171   172.20.191.255   UDP       61 2008 → 2008 Len=19
37677 245.524130 172.20.174.171   172.20.191.255   UDP       61 2007 → 2007 Len=19
37678 245.547209 172.20.184.255   239.255.255.250  SSDP     179 M-SEARCH * HTTP/1.1
37679 245.566831 142.250.205.234  172.20.173.82    UDP       69 443 → 49155 Len=27
37680 245.581900 172.20.190.17    172.20.191.255   UDP       60 2008 → 2008 Len=11
```

```
> Frame 14374: 338 bytes on wire (2704 bits), 338 bytes captured (2704 bits) on interface \Device\NPF_{73
> Ethernet II, Src: HP_cc:4e:be (84:2a:fd:cc:4e:be), Dst: IPv4mcast_7f:ff:fa (01:00:5e:7f:ff:fa)
> Internet Protocol Version 4, Src: 172.20.176.179, Dst: 239.255.255.250
> User Datagram Protocol, Src Port: 60829, Dst Port: 1900
v Simple Service Discovery Protocol
  > NOTIFY * HTTP/1.1\r\n
    HOST: 239.255.255.250:1900\r\n
    LOCATION: http://172.20.176.179:56230\r\n
    SERVER: Windows/10.0.22621 UPnP/1.1 uTorrent(client)(native)/355\r\n
    NTS: ssdp:alive\r\n
    ST: ut:client:service:pairing\r\n
    USN: uuid:d71946d0-94a9-eb11-a546-6c6a770094e7\r\n
    FRIENDLYNAME:HARSH-NITW\r\n
    HH:jxMChMdTqhI5OegF\r\n
    \r\n
    [Full request URI: http://239.255.255.250:1900*]
```

```
0000  01 00 5e 7f ff fa 84 2a  fd cc 4e be 08 00 45 00   ··^····* ··N···E·
0010  01 44 9a 88 00 00 ff 11  d3 5d ac 14 b0 b3 ef ff   ·D······ ·]······
0020  ff fa ed 9d 07 6c 01 30  83 03 4e 4f 54 49 46 59   ·····l·0 ··NOTIFY
0030  20 2a 20 48 54 54 50 2f  31 2e 31 0d 0a 48 4f 53    * HTTP/ 1.1··HOS
0040  54 3a 20 32 33 39 2e 32  35 35 2e 32 35 35 2e 32   T: 239.2 55.255.2
0050  35 30 3a 31 39 30 30 0d  0a 4c 4f 43 41 54 49 4f   50:1900· ·LOCATIO
0060  4e 3a 20 68 74 74 70 3a  2f 2f 31 37 32 2e 32 30   N: http: //172.20
0070  2e 31 37 36 2e 31 37 39  3a 35 36 32 33 30 0d 0a   .176.179 :56230··
0080  53 45 52 56 45 52 3a 20  57 69 6e 64 6f 77 73 2f   SERVER:  Windows/
0090  31 30 2e 30 2e 32 32 36  32 31 20 55 50 6e 50 2f   10.0.226 21 UPnP/
00a0  31 2e 31 20 75 54 6f 72  72 65 6e 74 28 63 6c 69   1.1 uTor rent(cli
00b0  65 6e 74 29 28 6e 61 74  69 76 65 29 2f 33 35 35   ent)(nat ive)/355
00c0  0d 0a 4e 54 53 3a 20 73  73 64 70 3a 61 6c 69 76   ··NTS: s sdp:aliv
00d0  65 0d 0a 53 54 3a 20 75  74 3a 63 6c 69 65 6e 74   e··ST: u t:client
00e0  3a 73 65 72 76 69 63 65  3a 70 61 69 72 69 6e 67   :service :pairing
00f0  0d 0a 55 53 4e 3a 20 75  75 69 64 3a 64 37 31 39   ··USN: u uid:d719
0100  34 36 64 30 2d 39 34 61  39 2d 65 62 31 31 2d 61   46d0-94a 9-eb11-a
0110  35 34 36 2d 36 63 36 61  37 37 30 30 39 34 65 37   546-6c6a 770094e7
0120  0d 0a 46 52 49 45 4e 44  4c 59 4e 41 4d 45 3a 48   ··FRIEND LYNAME:H
0130  41 52 53 48 2d 4e 49 54  57 0d 0a 48 48 3a 6a 78   ARSH-NIT W··HH:jx
0140  4d 43 68 4d 64 54 71 68  49 35 4f 65 67 46 0d 0a   MChMdTqh I5OegF··
0150  0d 0a                                               ··
```

2. To capture the FTP password using Wireshark.

Step 1: Created FTP server on neighbor computer, and connecting it through windows



Add Network Location

Welcome to the Add Network Location Wizard

This wizard helps you sign up for a service that offers online storage space. You can use this space to store, organize, and share your documents and pictures using only a web browser and Internet connection.

You can also use this wizard to create a shortcut to a website, an FTP site, or other network location.

Add Network Location

Specify the location of your website

Type the address of the website, FTP site, or network location that this shortcut will open.

Internet or network address: ftp://172.20.186.50/

Add Network Location

Specify a User Name and Password if Required

Most FTP servers allow users to log on anonymously with limited access to the server. Do you want to log on anonymously?

☐ Log on anonymously

User name: hs

You will be prompted for your password when you connect to the FTP server.

Add Network Location

Completing the Add Network Location Wizard

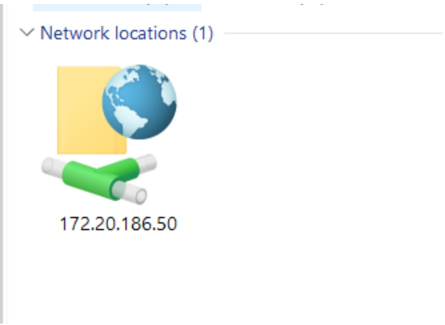
You have successfully created this network location:

172.20.186.50

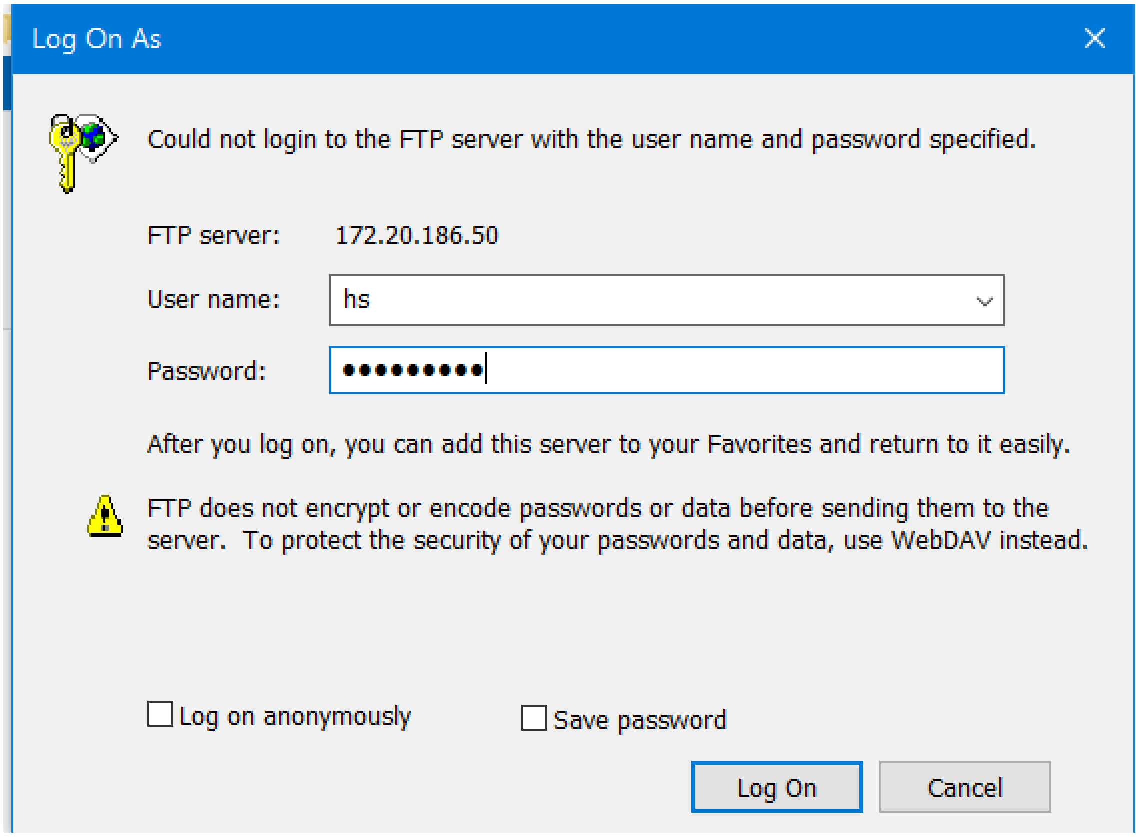
A shortcut for this location will appear in Computer.

☑ Open this network location when I click Finish.

Step2:FTP server created successfully



Step 3: Entering Password to enter the FTP server



Could not login to the FTP server with the user name and password specified.

FTP server: 172.20.186.50

User name: hs

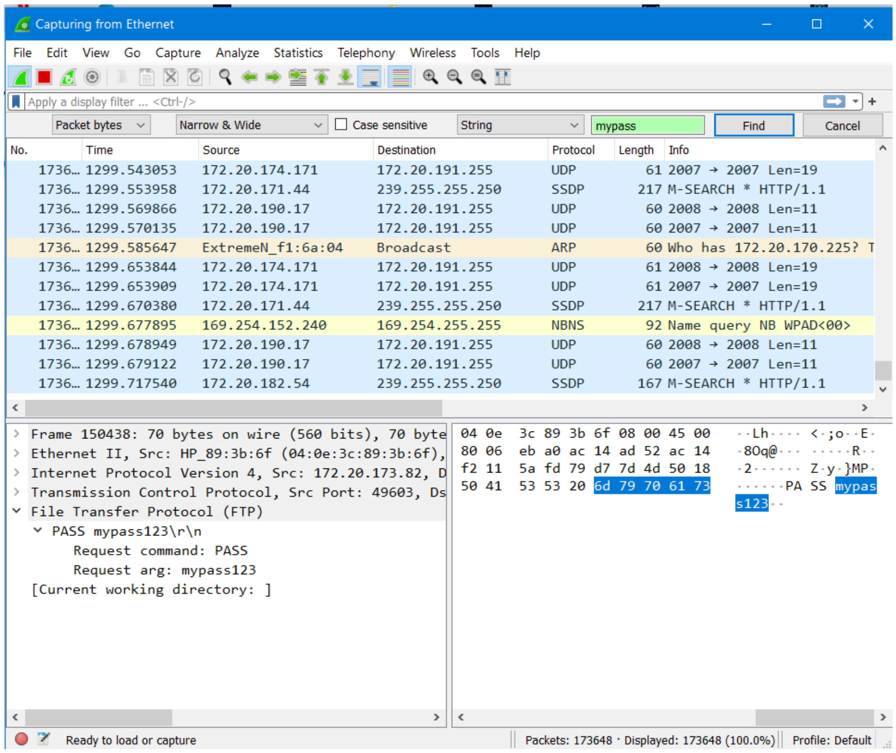
Password: ●●●●●●●●●

After you log on, you can add this server to your Favorites and return to it easily.

FTP does not encrypt or encode passwords or data before sending them to the server. To protect the security of your passwords and data, use WebDAV instead.

□ Log on anonymously □ Save password

Step 4: FTP password captured on wireshark, by searching the password in filter space



Packet bytes | Narrow & Wide | □ Case sensitive | String | mypass

No.	Time	Source	Destination	Protocol	Length	Info
1736…	1299.543053	172.20.174.171	172.20.191.255	UDP	61	2007 → 2007 Len=19
1736…	1299.553958	172.20.171.44	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
1736…	1299.569866	172.20.190.17	172.20.191.255	UDP	60	2008 → 2008 Len=11
1736…	1299.570135	172.20.190.17	172.20.191.255	UDP	60	2007 → 2007 Len=11
1736…	1299.585647	ExtremeN_f1:6a:04	Broadcast	ARP	60	Who has 172.20.170.225? T
1736…	1299.653844	172.20.174.171	172.20.191.255	UDP	61	2008 → 2008 Len=19
1736…	1299.653909	172.20.174.171	172.20.191.255	UDP	61	2007 → 2007 Len=19
1736…	1299.670380	172.20.171.44	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
1736…	1299.677895	169.254.152.240	169.254.255.255	NBNS	92	Name query NB WPAD<00>
1736…	1299.678949	172.20.190.17	172.20.191.255	UDP	60	2008 → 2008 Len=11
1736…	1299.679122	172.20.190.17	172.20.191.255	UDP	60	2007 → 2007 Len=11
1736…	1299.717540	172.20.182.54	239.255.255.250	SSDP	167	M-SEARCH * HTTP/1.1

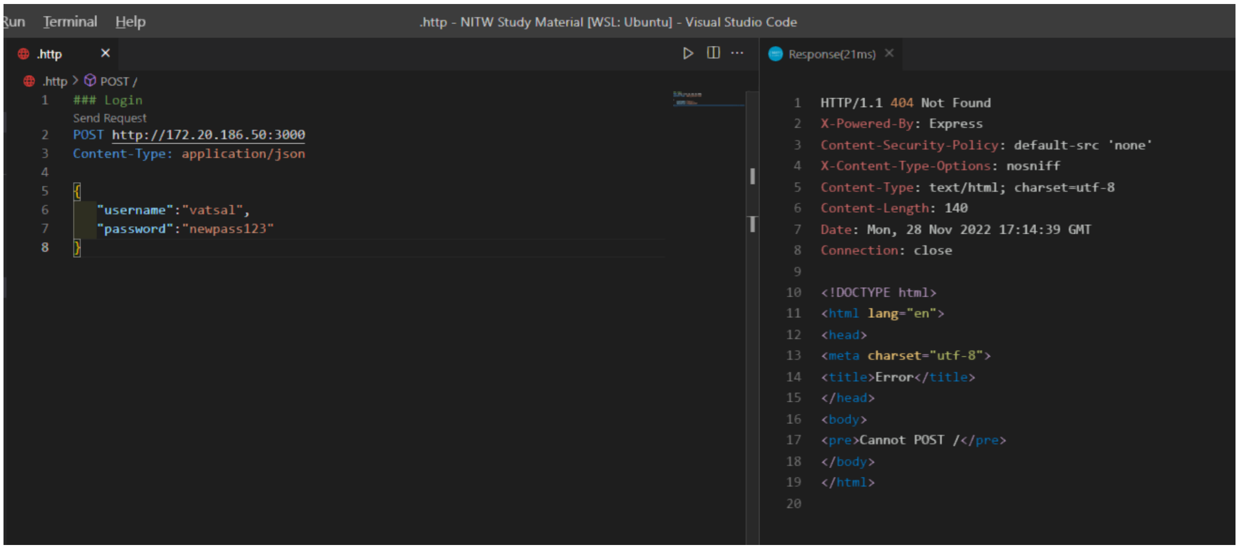
```
> Frame 150438: 70 bytes on wire (560 bits), 70 byte
> Ethernet II, Src: HP_89:3b:6f (04:0e:3c:89:3b:6f),
> Internet Protocol Version 4, Src: 172.20.173.82, D
> Transmission Control Protocol, Src Port: 49603, Ds
v File Transfer Protocol (FTP)
  v PASS mypass123\r\n
      Request command: PASS
      Request arg: mypass123
  [Current working directory: ]
```

```
04 0e  3c 89 3b 6f 08 00 45 00   ··Lh···· <·;o··E·
80 06  eb a0 ac 14 ad 52 ac 14   ·8Oq@··· ·····R··
f2 11  5a fd 79 d7 7d 4d 50 18   ·2······ Z·y·}MP·
50 41  53 53 20 6d 79 70 61 73   ······PA SS mypas
                                 s123··
```

Ready to load or capture | Packets: 173648 · Displayed: 173648 (100.0%) | Profile: Default

3. To demonstrate username and password sniffing using WireShark

Step1: Creating HTTP server, and requesting POST request, using username and password


Run
Terminal
Help
.http - NITW Study Material [WSL: Ubuntu] - Visual Studio Code
.http
.http > POST /
Send Request
Response(21ms)

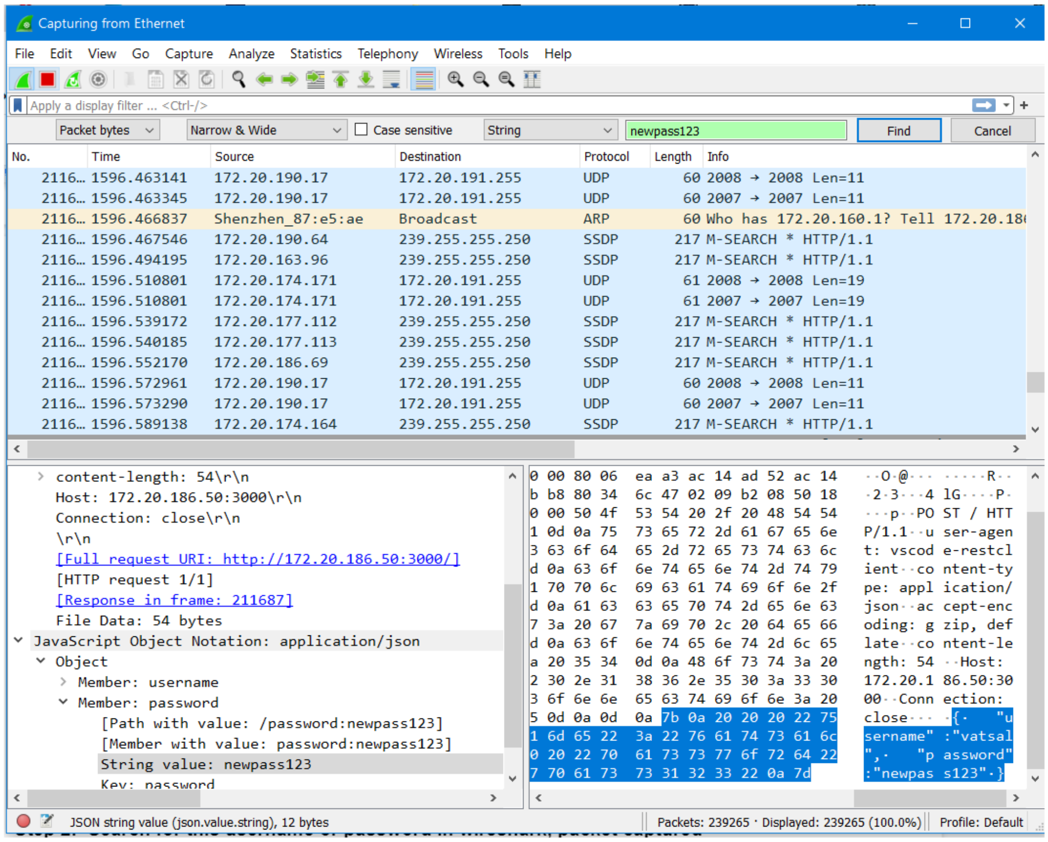
```
### Login
POST http://172.20.186.50:3000
Content-Type: application/json

{
    "username":"vatsal",
    "password":"newpass123"
}
```

```
HTTP/1.1 404 Not Found
X-Powered-By: Express
Content-Security-Policy: default-src 'none'
X-Content-Type-Options: nosniff
Content-Type: text/html; charset=utf-8
Content-Length: 140
Date: Mon, 28 Nov 2022 17:14:39 GMT
Connection: close

<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<title>Error</title>
</head>
<body>
<pre>Cannot POST /</pre>
</body>
</html>
```

Step 2: Search for this username or password in wireshark, packet captured successfully



Packet bytes | Narrow & Wide | □ Case sensitive | String | newpass123

```
No.      Time          Source              Destination        Protocol  Length Info
  2116… 1596.463141   172.20.190.17       172.20.191.255     UDP          60 2008 → 2008 Len=11
  2116… 1596.463345   172.20.190.17       172.20.191.255     UDP          60 2007 → 2007 Len=11
  2116… 1596.466837   Shenzhen_87:e5:ae   Broadcast          ARP          60 Who has 172.20.160.1? Tell 172.20.18
  2116… 1596.467546   172.20.190.64       239.255.255.250    SSDP        217 M-SEARCH * HTTP/1.1
  2116… 1596.494195   172.20.163.96       239.255.255.250    SSDP        217 M-SEARCH * HTTP/1.1
  2116… 1596.510801   172.20.174.171      172.20.191.255     UDP          61 2008 → 2008 Len=19
  2116… 1596.510801   172.20.174.171      172.20.191.255     UDP          61 2007 → 2007 Len=19
  2116… 1596.539172   172.20.177.112      239.255.255.250    SSDP        217 M-SEARCH * HTTP/1.1
  2116… 1596.540185   172.20.177.113      239.255.255.250    SSDP        217 M-SEARCH * HTTP/1.1
  2116… 1596.552170   172.20.186.69       239.255.255.250    SSDP        217 M-SEARCH * HTTP/1.1
  2116… 1596.572961   172.20.190.17       172.20.191.255     UDP          60 2008 → 2008 Len=11
  2116… 1596.573290   172.20.190.17       172.20.191.255     UDP          60 2007 → 2007 Len=11
  2116… 1596.589138   172.20.174.164      239.255.255.250    SSDP        217 M-SEARCH * HTTP/1.1
```

```
  > content-length: 54\r\n
    Host: 172.20.186.50:3000\r\n
    Connection: close\r\n
    \r\n
    [Full request URI: http://172.20.186.50:3000/]
    [HTTP request 1/1]
    [Response in frame: 211687]
    File Data: 54 bytes
v JavaScript Object Notation: application/json
  v Object
    > Member: username
    v Member: password
        [Path with value: /password:newpass123]
        [Member with value: password:newpass123]
        String value: newpass123
        Key: password
```

```
0 00 80 06  ea a3 ac 14 ad 52 ac 14   ··O·@···  ·····R··
b b8 80 34  6c 47 02 09 b2 08 50 18   ·2·3···4 lG····P·
0 00 50 4f  53 54 20 2f 20 48 54 54   ···p··PO ST / HTT
1 0d 0a 75  73 65 72 2d 61 67 65 6e   P/1.1··u ser-agen
3 63 6f 64  65 2d 72 65 73 74 63 6c   t: vscod e-restcl
d 0a 63 6f  6e 74 65 6e 74 2d 74 79   ient··co ntent-ty
1 70 70 6c  69 63 61 74 69 6f 6e 2f   pe: appl ication/
d 0a 61 63  63 65 70 74 2d 65 6e 63   json··ac cept-enc
7 3a 20 67  7a 69 70 2c 20 64 65 66   oding: g zip, def
d 0a 63 6f  6e 74 65 6e 74 2d 6c 65   late··co ntent-le
a 20 35 34  0d 0a 48 6f 73 74 3a 20   ngth: 54 ··Host: 
2 30 2e 31  38 36 2e 35 30 3a 33 30   172.20.1 86.50:30
3 6f 6e 6e  65 63 74 69 6f 6e 3a 20   00··Conn ection: 
5 0d 0a 0d  0a 7b 0a 20 20 20 22 75   close··· ·{·   "u
1 6d 65 22  3a 22 76 61 74 73 61 6c   sername" :"vatsal
0 20 22 70  61 73 73 77 6f 72 64 22   ",·   "p assword"
7 70 61 73  73 31 32 33 22 0a 7d      :"newpas s123"·}
```

JSON string value (json.value.string), 12 bytes | Packets: 239265 · Displayed: 239265 (100.0%) | Profile: Default