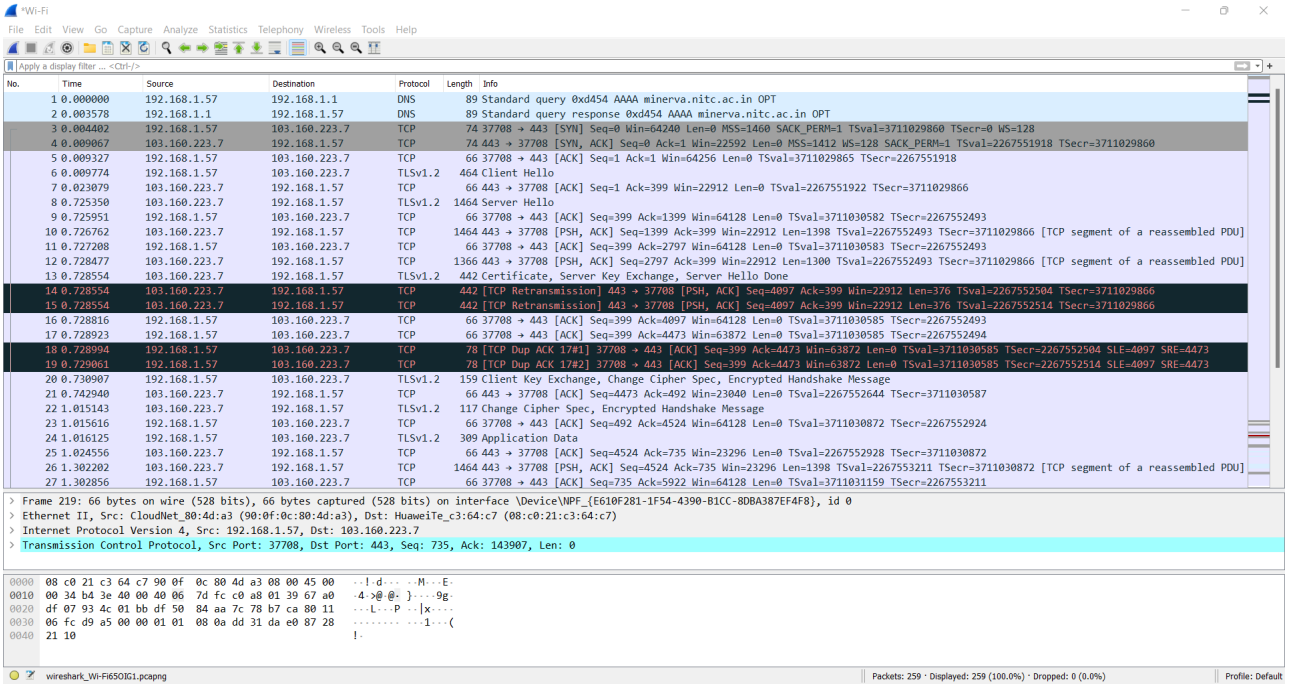
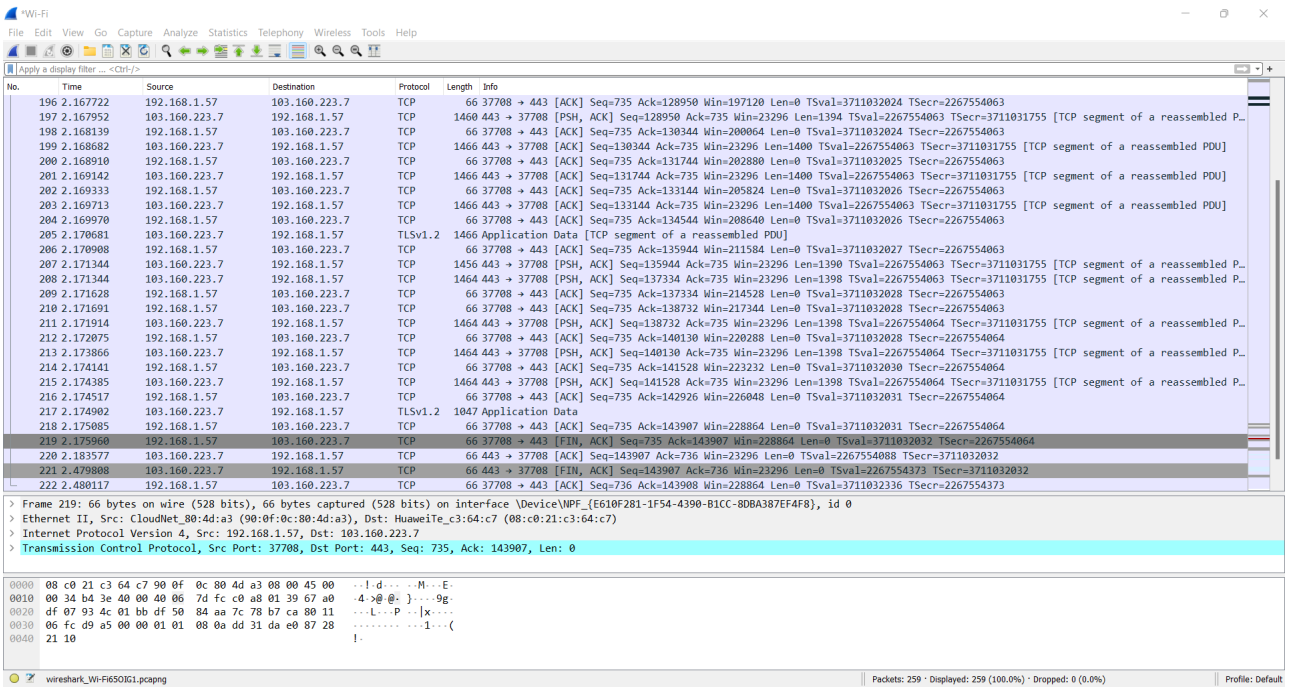
Networks Laboratory - Assignment 2

Muhammed Jaseem Pallikkal
B190703CS
CSE-B

1.



Beginning of the transfer of packets



End of transfer of packets

- Initially, in frames 1 and 2, we are doing a DNS lookup of minerva.nitc.ac.in to find its IP address.
- IP address of minerva.nitc.ac.in is 103.160.223.7 and the port used is 443
- IP address of the laptop is 192.168.1.57 and the port used is 37708
- Most of the frames are using TCP protocol which indicates that the data is transmitted using TCP protocol.
- Transport Layer Security (TLSv1.2) protocol is used to encrypt data sent through the internet.
- Then in frames 3 and 4, the SYN flag is set which synchronises the sequence numbers and indicates that the connection is initiated.
- In frame 6 we see the client sending hello and in frame 8, we can see the server sending hello. This is known as TLS handshake and is what starts a communication session between the client and the server.
- In frames 219 and 221, the FIN flag is set which indicates that the connection is being terminated.

2. a. Source: 192.168.44.53
   Destination: 192.168.44.1

   b. HTTP

   c. Username: vasudevanar
   Password: vasu

3. **Packet Number: 27**

   Source Port: 443
   Destination Port: 59138
   Sequence Number: 3056868986
   Acknowledgement Number: 1084580465
   Data Offset: 20
   Reserved: 0
   URG: 0
   ACK: 1
   PSH: 0
   RST: 0
   SYN: 0
   FIN: 1
   Window Size: 60
   Checksum: 0x5442
   Urgent Pointer: 0

Packet Number: 32

Source Port: 59139
Destination Port: 443
Sequence Number: 1660956066
Acknowledgement Number: 3861199010
Data Offset: 20
Reserved: 000
URG: 0
ACK: 1
PSH: 0
RST: 1
SYN: 0
FIN: 0
Window Size: 0
Checksum: 0xfaec
Urgent Pointer: 0