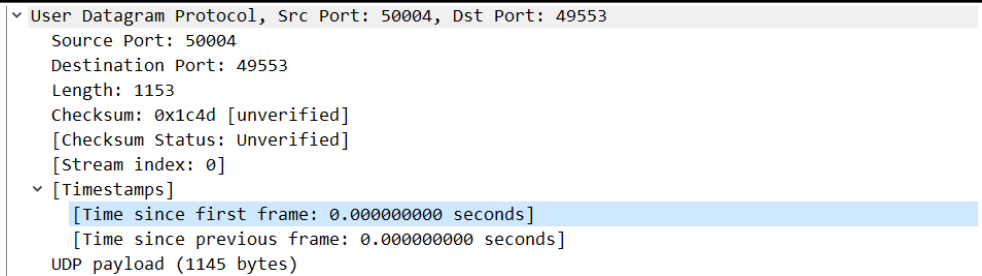
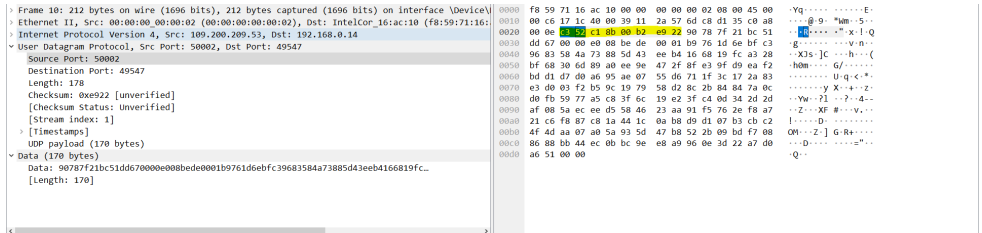


Wireshark Lab 2: UDP

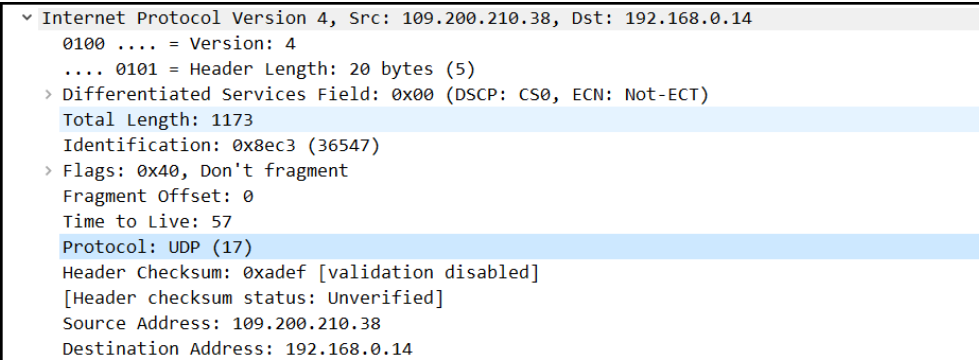
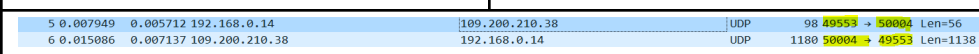
Group Details:

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Mark:

	Question	Answer
1	Select one packet. From this packet, determine how many fields there are in the UDP header. Name these fields.	There are 4 main fields including Source port, Destination port, Length, Checksum. There are also other fields like Stream Index, Timestamps.
Annotated Screenshots (if needed)		
2	From the packet content field, determine the length (in bytes) of each of the UDP header fields.	Each field contain 2 bytes
Annotated Screenshots (if needed)		

3	The value in the Length field is the length of what? Verify your claim with your captured UDP packet.	This is the sum of the length of the UDP header which is 8 byte and the length of the data. $1153=8+1145$
Annotated Screenshots (if needed)		
4	What is the maximum number of bytes that can be included in a UDP payload.	The maximum length $2^{16} - 1 = 65535$ bytes Excluding the length of the header, the maximum number of payload is 65527 bytes
Annotated Screenshots (if needed)		
5	What is the largest possible source port number?	largest port number is $2^{16} - 1 = 65535$
Annotated Screenshots (if needed)		
6	What is the protocol number for UDP? Give your answer in both hexadecimal and decimal notation. (To answer this question, you'll need to look into the IP header.)	17, or 0x11

Annotated Screenshots (if needed)	 <pre> Internet Protocol Version 4, Src: 109.200.210.38, Dst: 192.168.0.14 0100 = Version: 4 0101 = Header Length: 20 bytes (5) > Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT) Total Length: 1173 Identification: 0x8ec3 (36547) > Flags: 0x40, Don't fragment Fragment Offset: 0 Time to Live: 57 Protocol: UDP (17) Header Checksum: 0xadef [validation disabled] [Header checksum status: Unverified] Source Address: 109.200.210.38 Destination Address: 192.168.0.14 </pre>	
7	Search “UDP” in Google and determine the fields over which the UDP checksum is calculated.	the entire payload, and the other fields in the header, and some fields from the IP header
Annotated Screenshots (if needed)		
8	Examine a pair of UDP packets in which the first packet is sent by your host and the second packet is a reply to the first packet. Describe the relationship between the port numbers in the two packets	The source port and the destination port will be exchanged
Annotated Screenshots (if needed)	 <pre> 5 0.007949 0.005712 192.168.0.14 109.200.210.38 UDP 98 49553 → 50004 Len=56 6 0.015086 0.007137 109.200.210.38 192.168.0.14 UDP 1180 50004 → 49553 Len=1138 </pre>	