

1. Draw an TCP header. Capture packets using wireshark and explain the fields for a particular TCP packet captured. Try to explain the purpose of each field.
2. Draw an UDP header. Capture packets using wireshark and explain the fields for a particular UDP packet captured. Try to explain the purpose of each field.
3. Capture a UDP packet, verify the checksum using **16-bit One's Complement Sum** algorithm.
4. Capture packets from a streaming application. Does this application use UDP or TCP? If both, what UDP packets are mainly used for?
5. What's TCP 3-Way Handshake? Draw a diagram to illustrate the process using real packets captured in a TCP session. Fill in the values of some key fields of the packets.
6. What's TCP 4-Way teardown? Draw a diagram to illustrate the process using real packets captured in a TCP session. Fill in the values of some key fields of the packets.

Bonus:

Find two interview questions about TCP, and provide the answer. please provide the reference.