a) Compare the destination port in the TCP packet in frame 3 with the destination port in the TCP packet in frame 12. What difference do you see? What does this tell you about the difference in the two requests?

- **Frame 3:** The destination port is 80, which is commonly used for HTTP traffic. This shows that the request in this frame (from IP address 192.168.1.3 to 68.142.226.44) is for a standard HTTP connection.
- **Frame 12:** The destination port is 443, which is typically used for HTTPS traffic. This means the request in this frame (from IP address 192.168.1.3 to 131.247.100.94) is for a secure connection using SSL/TLS.

b) Explain what is happening in row “iii” above. Why are there no frames listed for yahoo in row “iii"?

In row "iii," frames 13-20 show the SSL/TLS handshake for `my.usf.edu`, where the client begins a secure connection by sending a Client Hello message. The server then responds with a Server Hello and its certificate, leading to the Client Key Exchange and the start of encrypted data transfer. However, there are no SSL/TLS frames for `www.yahoo.com`, as the initial request (frames 1-2) was sent over HTTP, which doesn't require SSL/TLS. This suggests a shift to an HTTPS connection for another site, a typical scenario when users transition from an unencrypted HTTP site to a secure HTTPS site, leaving no SSL/TLS frames for the first site.

c) Look at the “Info” column on frame 6. It says: “GET / HTTP / 1.1. What is the corresponding Info field for the my.usf.com web request (frame 21)? Why doesn’t it read the same as in frame 6?

The "Info" field in frame 21, which is part of the secure connection to my.usf.edu, shows "Application Data." This is different from the "GET / HTTP/1.1" in frame 6 because frame 21 is after the secure handshake. In a secure connection, data is encrypted. So, Wireshark shows it as "Application Data" since the actual HTTP request is hidden within the secure SSL/TLS protocol. Frame 6 shows the clear HTTP GET request, but frame 21 doesn't because the data is encrypted and sent after the handshake.