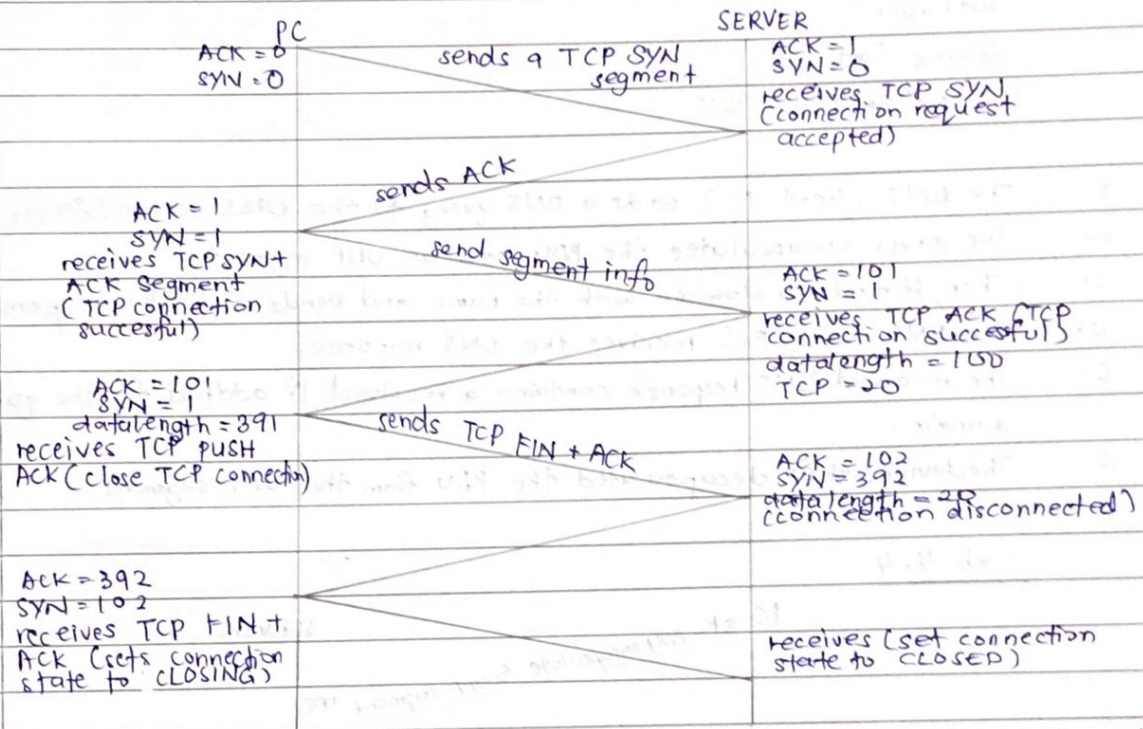


Lab 4-2



1. The device tries to make a TCP connection and sends a TCP SYN segment and segment information.
2. The device receives a TCP SYN segment and segment information. The connection request is accepted and sets the connection state to SYN-RECEIVED.
3. TCP accepts a window. The device sends a TCP SYN+ACK segment and segment information.
4. The device receives a TCP SYN+ACK segment and segment information. TCP connection is successful and TCP retrieves the MSS value. The device sets the connection state to ESTABLISHED.
5. The device receives a TCP ACK segment and the TCP segment has the expected peer sequence number. The device sets the connection state to ESTABLISHED.
6. The device receives a TCP PUSH+ACK segment and TCP processes payload data. TCP reassembles all data segments and passes to the upper layer. The server receives a HTTP request and sends back a HTTP reply to the client.
- f. The device receives a TCP FIN+ACK segment. The TCP segment has the expected peer sequence number and the device sets the connection state to CLOSING. The device sends a TCP ACK segment.

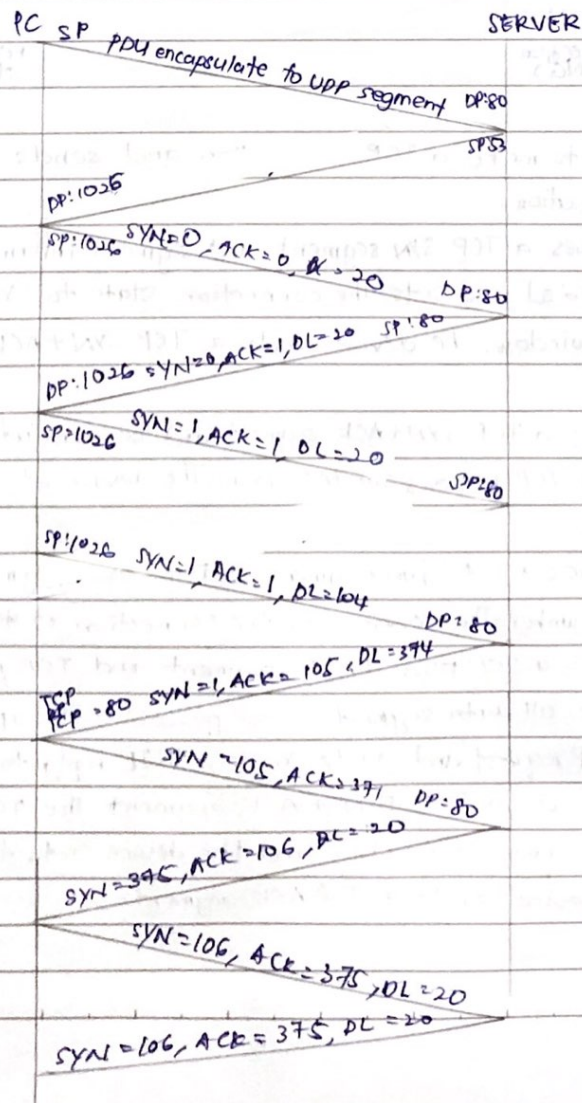
Lab 4-3

Out Layer:

Source Port: 53

Destination Port: 1025

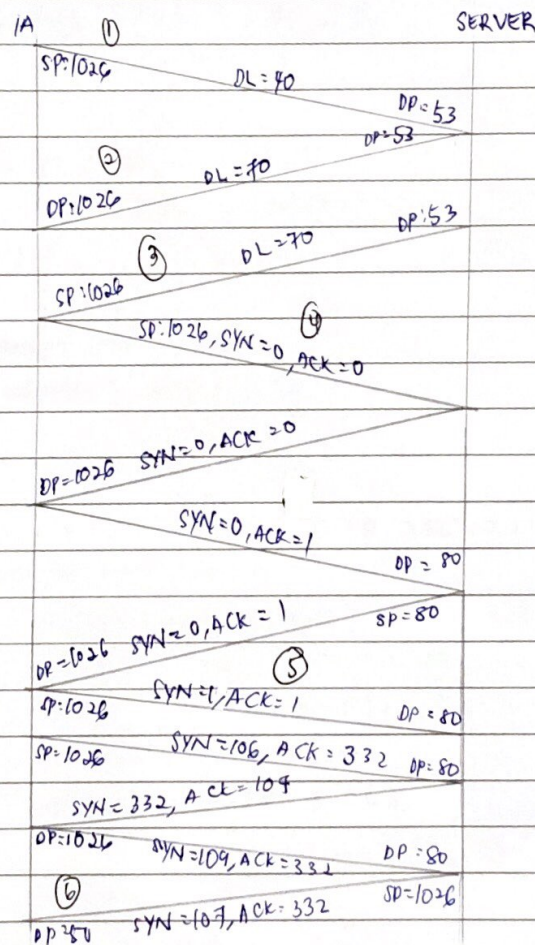
1. The DNS client (PC) sends a DNS query to the DNS server (Server).
2. The server encapsulates the PDU into an UDP segment.
3. Then, it finds a domain with the name and sends it back a response.
4. The DNS client (PC) receives the DNS response.
5. The received DNS response contains a resolved IP address for the queried domain.
6. The device then decapsulated the PDU from the UDP segment.

Lab 4-4

Subject:.....

Layer 7

1. PC sends DNS query to the server.
2. PC makes a connection to server.
3. PC sends a HTTP request to server.
4. PC receives reply from server and display at web browser.

Lab 4-5

1. The packet from IA will send to the server. Server receives frames through R1-ISP. UDP source port at 1026 while destination port is 53.
2. DNS server find domain and send back response to IA.
3. IA receives response from DNS that contains a resolved IP addresses.
4. IA sends segment to server.
5. Server receives segment and established the segment from IA.
6. Segment receives back to IA and DNS server is closed.