Describe the difference between TCP flow control and congestion control.

Answer:

The TCP flow control is to make sure that the receiver’s buffer will not be overflowed by the packets.

The TCP congestion control is to make sure that the route between the end points is not congested by too much packets.

Describe the characteristics of three congestion control state.

Answer:

Slow start: The cwnd is doubled over each RTT.

Congestion Avoid : The cwnd plus one over each RTT.

Fast recovery: When the machine receives a new ACK, it will enter into the congestion avoid state.

Every time when the machine receives a duplicated ACK, it will plus cwnd with one.

What happen underlying the computer screen when a user types an URL in its web browser and hit Enter?

Answer:

The web browser will check its cache first to find the corresponding webpage or IP address. If the corresponding information is not cached, the web browser will send a query request to the local DNS server. The local DNS server will then return the corresponding IP address to the host. Then the web browser will send a http/https request to that IP address. Then the web server may or may not return the requested information to the host.