OSI Model

Thursday, 3 February 2022 1:08 AM

OSI - Open System Interconnection model

→ It was a standad way of how computer and people connected with each other.

There are 7 layers in the OSI model

L1 Application Layer
L2 presentation "
L3 session "
L4 Transport "
L5 Network "
L6 data Link "
L7 Physical "

Application Layer

It is implemented in software.
the message is sent to presentation layer.

→ Presentation Layer.

The sent message will be in text, number, etc which will be converted into machine language binary form.

from ASCII → EBCDIC

This layer encrypts the data and provides abstraction.

here SSL protocol is used.

→ Session Layer

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basically setting up and managing connections and enables sending and receiving of data followed by termination of session.

→ Transport Layer

This layer helps to transport the message to the receiver

Data received from session Layer will be divided into segments

and every segment will contain the source and destination port no and sequence no (sequence no helps the segments to re-order in correct order)

flow control - management of data flow in between computer or devices in network so that data can be handled at an efficient pace.

So, if amazon has a speed of 40mbps and our receiving speed is 20mbps it would be bad.

→ Network Layer

Basically works for the transmission of received data segments from one computer to other computer. which is located in a different network.

This is where the router Lives

The function of Network Layer is Logical Addresing

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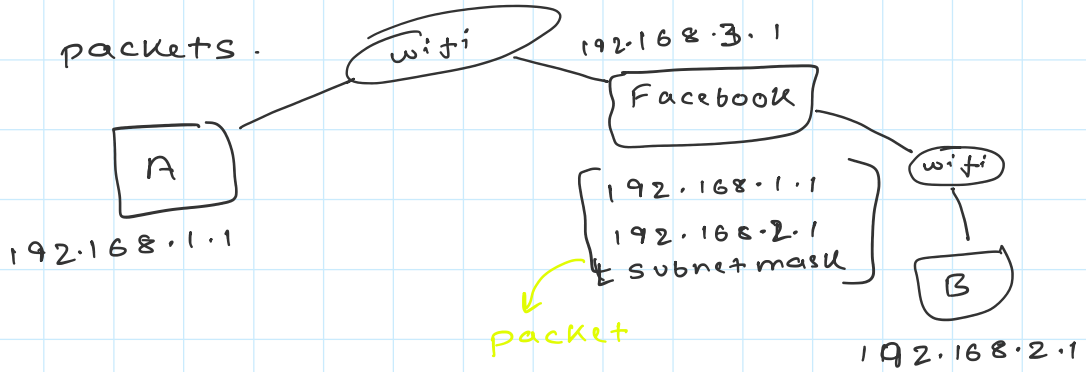
IP addressing done in Network Layer is ___

→ Network Layer assign the sender and receiver IP address to every segment and it forms an IP packet. why? so that every data packet reaches its correct destination.

→ Data Link Layer

This layer allows you to directly communicate with the computer.

This layer will receive data packets.



physical address

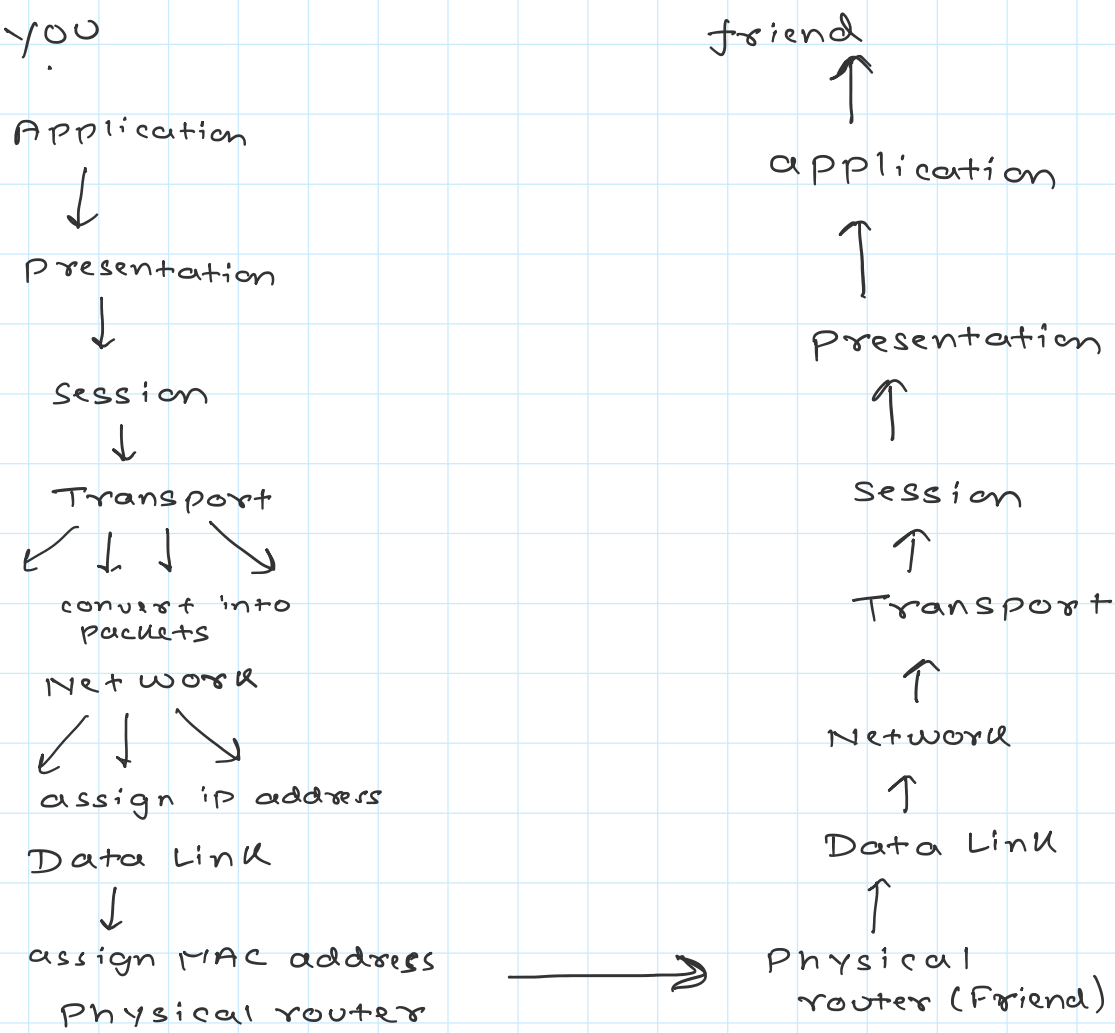
Now MAC address of sender and receiver are assigned to data packets. To form a frame

basically data unit of Data Link Layer.

MAC address is a 12 digit alpha-numeric of the network interface of computer

→ physical Layer

This layer reckives the signal convert it into bits.



another model : TCP/IP model

This model is almost similar but rather has 5 layer