OSI Model 2

Data link:

1. LLC: logical link control
- Reliability
- Error detection mechanism
- Additional information in the form of a table. When the receiver receives data along with the *redundancy bit (CRC, parity bit)* [added to tailer of data]
- Framing: adds destination and source MAC address to the header
2. MAC: medium access control
- To avoid collision within the same channel
- Depends on medium (ALOHA (pure, slotted), CSMA, CSMA/CD, CSMA/CA

Data link layer reassembles and detects missing packets.
Transport layer reassembles segments(and detecting missing packets)
Intermediate routers do not detect missing layers

Physical layer:
- Convert into medium suitable for the channel(electrical)
- Reverse at the receiver end

PDU: protocol data unit
contai

TCP/IP Protocol Suite

4 layers:
1. Application layer
2. Transport layer
3. Internet layer
4. NIL (host-to-network)

Addressing:

Physical addressing (MAC):
- 48-bit written as 12 HEX digits
- 00:00:00:00:00:00

	Organization Unique Identifier (OUI)	Vendor Assigned
-	24 bits	24bits

- Unique for every user - 2^24 products for each vendor (manufacturer)

IP addressing (logical):
- When destination is in another network
- 32-bit numeric address
- 0.0.0.0 - 255.255.255.255

Port address:
- Attached as header on data in the transport layer
- 16-bit number represented as one number
- 0 to 2^16
- 0 to 1024 reserved