Notes

TCP/IP (COMPUTER NETWORKS)

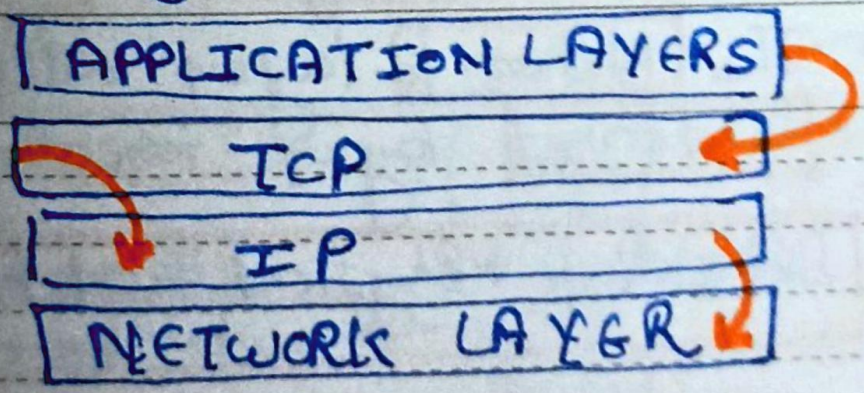
TCP stands for **Transmission Control Protocol**

IP stands for **Internet Protocol**

TCP — What is ??

It is one of the **main** protocols of the **internet** protocol suite.

It **lies** b/w **Application** and **network** layers.



Remarks

Date__/__/_____

TCP/IP

5-layer

- Application
- Transport
- Network
- Data link
- Physical layer

4-layer

- Application
- Transport
- Internet
- Network Access layer

Difference in 5-layer Vs 4-layer

⇒ The Network layer called Internet layer in 4-layer.

Remarks

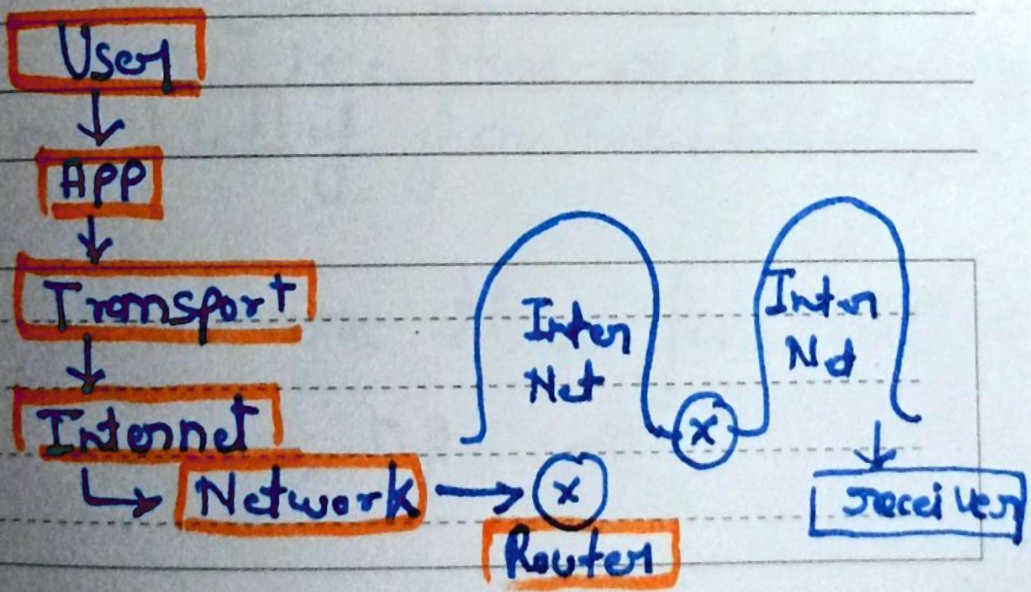
⇒ Data link + Physical = Network Access layer

TCP/IP Protocol Suit or Internet Protocol developed by ARPANET. It is fully implemented model.

⇒ Support → Client - Server and peer to peer

⇒ It is practical approach.

Working → like User generate data then it goes to



Remarks

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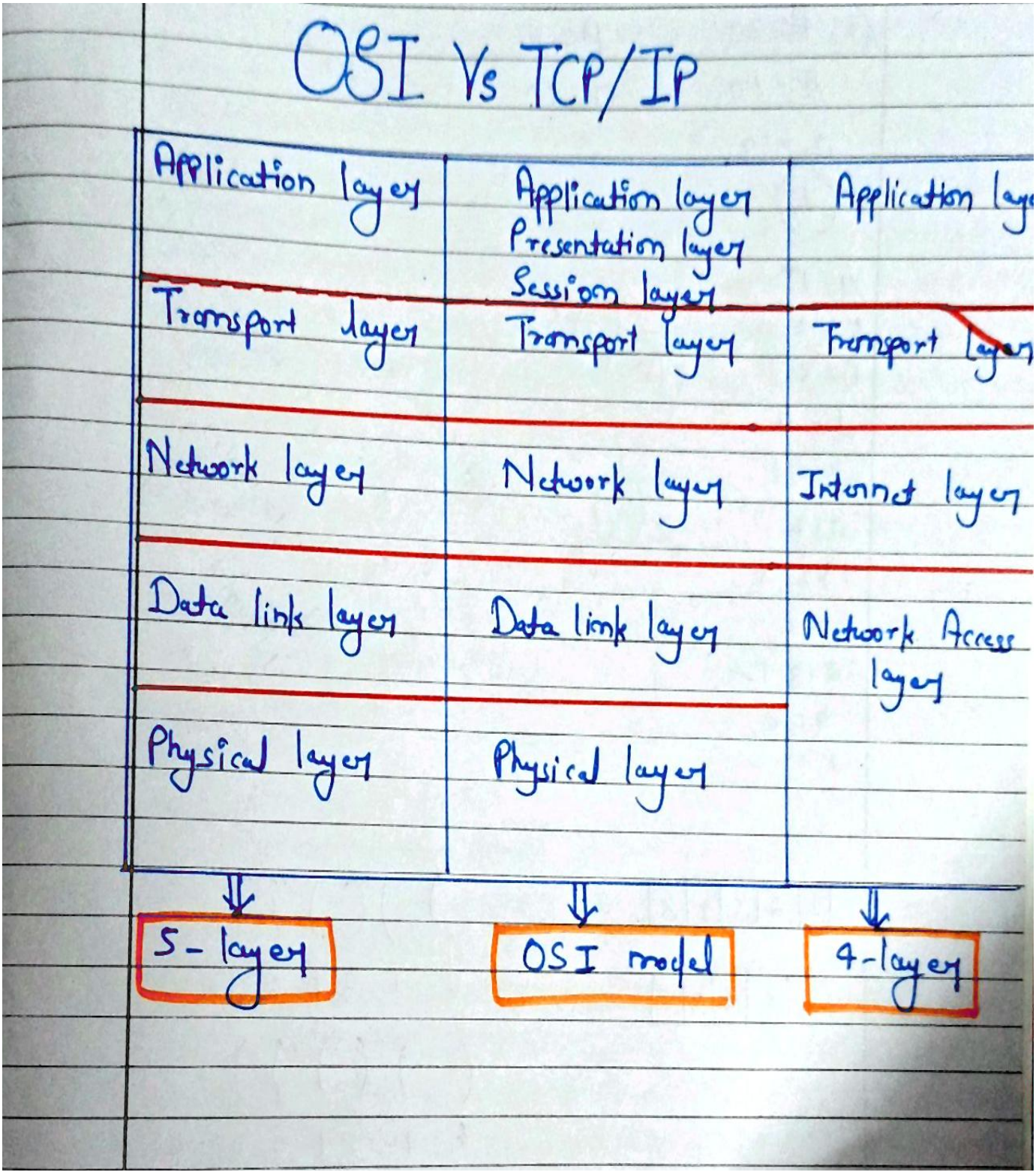
In TCP/IP all process will be done with the help of Internet / Network layer.

Remarks _____

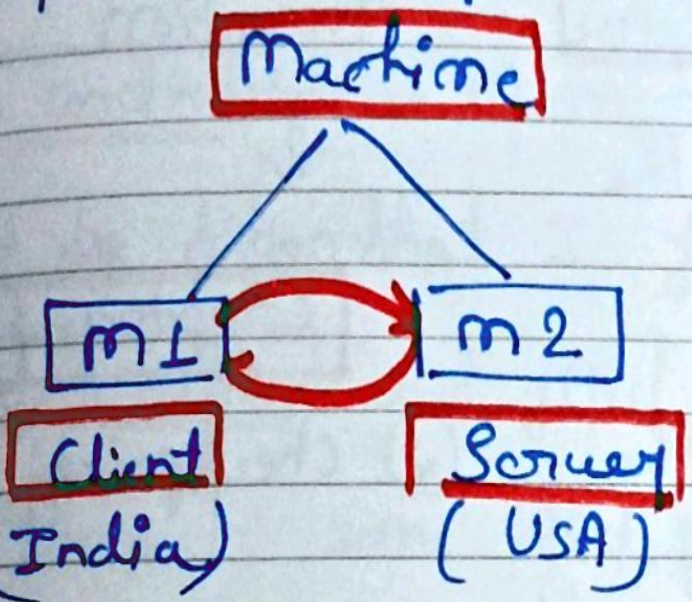
OSI Vs TCP/IP



OSI Model
(COMPUTER NETWORKS)

Open System Interconnection → OSI

⇒ take an example :



This is a two-way communication and lot of functionalities uses

Remarks: What are these functionalities → ??

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Notes

Functionalities

more than 10 functionalities

Mandatory

Optional

whenever my client machine is sending some data or request to the server.

what are the mandatory fn ??

(1) Error Control

if we send M then receiver send M if it receives ML means error.

(1) Encryption / decryption

known as cryptography.

(2) checkpoint

Remarks

(2) Flow control (Amount of data)

↓

means as a sender I am sending data to the receiver and I filled the whole network with data....

No there is some kind of flow control ⟶ Means It should not be like that I filled the whole buffer and filled it all memory

⟶ their is some kind of constraint

↓

Use then network work properly.

Remarks

(3) Multiplexing / Demultiplexing

⇒ lot of machine there but

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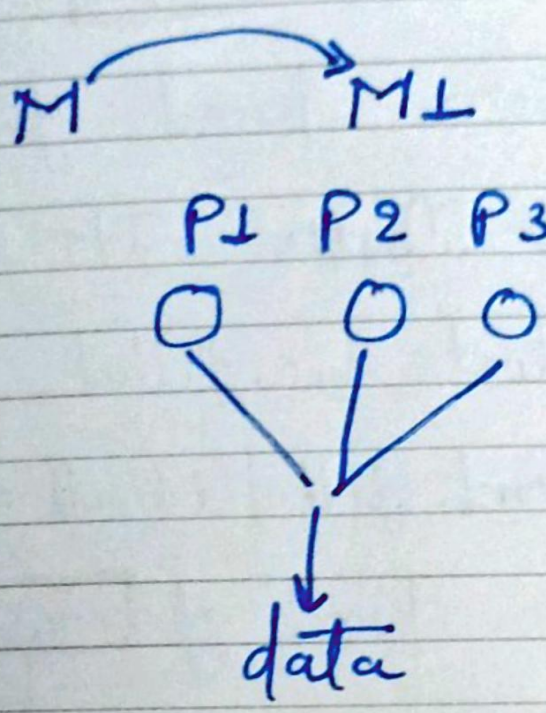
Note

which one provide data then we need multiplexing and demultiplexing



What is the need of OSI model why we made this model ??

Remarks

→ Big question.

The reason behind that model is this .... that all these functionalities that we are providing → we decided to put in a model

When we send/receive the data first it passes through all the protocols that is present in our model.

⇒ So, for that we made a model that is OSI model.

Convert all fn

layers

Remarks

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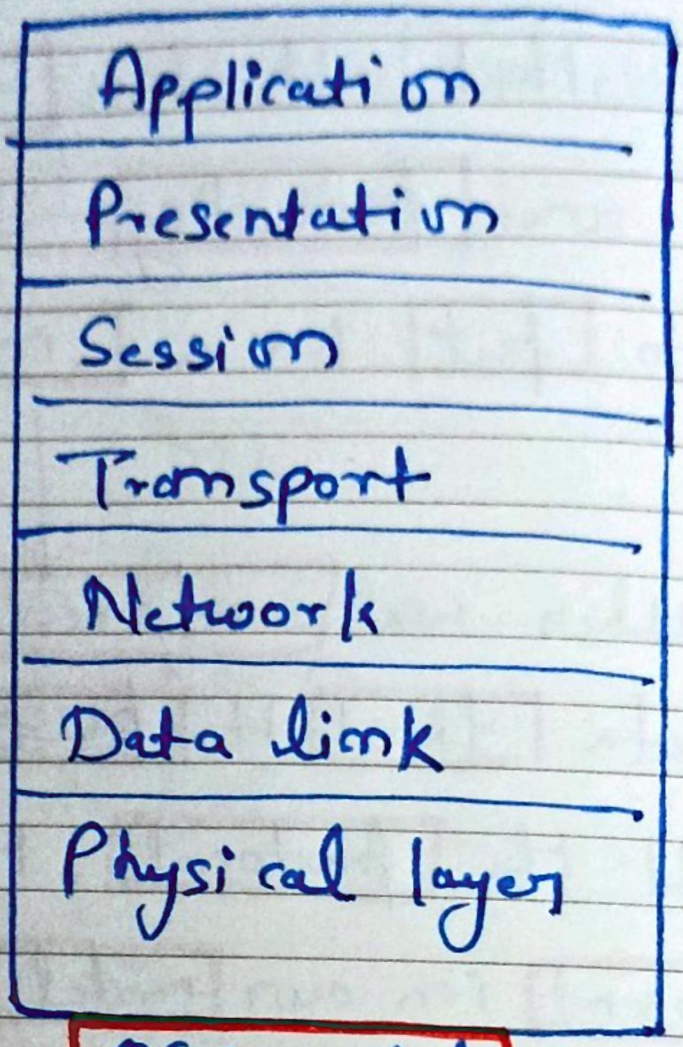
Notes

functionalities



OSI model

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whenever we pass our message first it passes from all the seven layer that is concept of OSI model

Remarks