

# TCP Vs UDP

Transmission Control Protocol

Internet protocol that connect a server and a client.

Connection oriented  
(Means: It first establish the connection then transfer the data)

Reliability

(Means: notify the sender whether data is received OR not)

P1 P2 P3

reach in order

User Datagram protocol

a communications protocol that facilitates the exchange of messages b/w computing devices in a network.

connection less  
(Means: does not care about connection, whenever it give data from an application → start transmission of data.)

less Reliability

(Not sure about get data)

↳ like P3 P2 P1

not reach in order.



# TCP Vs UDP

↓  
Error Control  
is **mandatory**.  
{ Here, use **checksum**  
to **check** error }

↓  
**Slow** transmission  
(here data travel  
only on **one**  
**network**)

↓  
**More** overhead  
(Means: TCP header  
20-60 Byte)

↓  
**Flow Control**, **Congestion**  
Control  
{ Check for capacity  
of data }  
↓  
help in finding packet  
if loss.

↓  
Error Control is  
**optional**.  
{ UDP header also  
have **checksum** but  
**only** difference is this  
error control is **optional**}

↓  
**Fast** transmission  
(here data travel  
from **multiple**  
**network**)

↓  
**Less** overhead  
(8 Byte)

↓  
**No** flow Control and  
**congestion** control.  
↓  
No help in finding  
packet if loss.



## Keypoints:

- ① TCP uses → HTTP  
UDP uses → DNS
- ② TCP uses → FTP (file transfer Protocol)  
UDP uses → BOOTP, DHCP, RIP

## Public Vs Private Address (IP)

↓ what is??

Used to communicate  
outside the network.  
It is assigned by  
ISP (Internet Service  
Provider)

↓  
divided into 3 classes

Class A   Class B   Class C

↓   ↓   ↓  
begin 1 to 126   begin 128 to 191   begin 192 to 223

↓ what is??

Used to communicate  
within the network.

↓  
Using Private IP, data  
or information can be  
send or received within  
the same network.

↓  
but if we don't  
want to connect with  
internet but have IP  
address so for that  
Private IP will come