

LINUX

WINDOWS

MYSQL / MSSQL

AWS / Azure, Docker, Git, Jenkins



## SERVER MANAGEMENT

uname - current information on O.S.  
uname -a - full details  
ps - running process on O.S.  
kill - kill process  
Service - manage service  
service restart restart

## COMPUTER NETWORK

- Computer connected together is comp network
- Collection of comp network.
- protocols - set of rules defined by internet society
- (a) TCP - data reach destination without being corrupt
- (b) UDP - not all data needed (Video conferencing)
- (c) HTTP - It defines the format of data that is transferred  
How the server will send back the data.



Q) How data is transferred?  
A) In the form of packets.

+ DHCP provides IP address through modem.

Δ my phone, my laptop both have same IP address provided by my ISP.

Google will only consider what IP address

• Router will decide which who reply to requests, using NAT

\* Q) How to decide which app request in device?  
A) we use ports for that

→ port number,

Total =  $2^{16} = 65,000 \sim$

HTTP = 80, MongoDB = 27017

SQL, 1433

0-1023, They are reserved ports

1024-49152, application port

49152 - remaining, we can use.

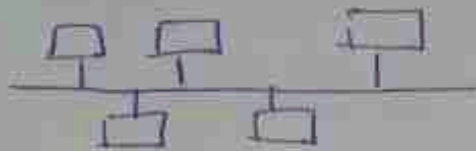
Physically: optically fibre, coaxial cable, wireless, bluetooth, wifi, 3G, 4G, LTE, 5G

SONET: Synchronous optical networking -  
we optical fibre, cover large distance

Frame relay - To connect LAN TO WAN

# TOPOLOGY

## 1) BUS :



only one person can send data at a time

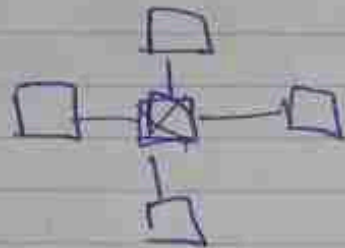


## 2) RING :



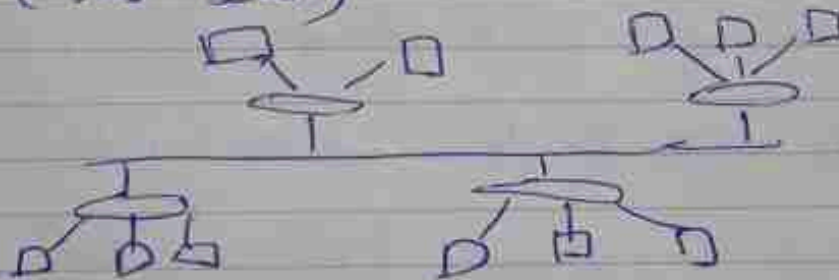
Using Unidirectional Comp  
to go from A to F  
we use B and C

## 3) STAR :

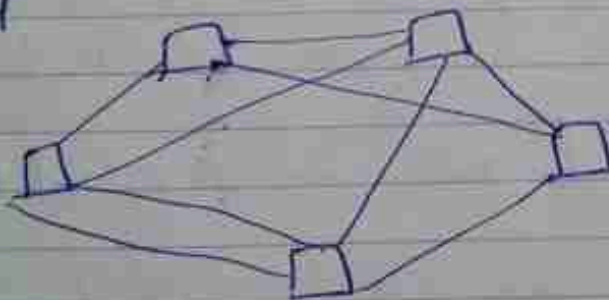


If central goes down,  
system fails

## 4) Tree (Bus-Star)



## 5) MESH



Expensive,  
we need to connect  
all computers.