Introduction

☆ What is Network?

- Coined in 1960's
- ARPANET
- collection of interconnected devices, such as, computers, servers, printers of other hardware that are linked together to share resources, exchange data if facilitate conversation.

☆ why Network?

① Resource sharing
- Hardware : share hardware with multiple users
- Software : enables sharing of software applications of licenses

② Security
- centralised security measures
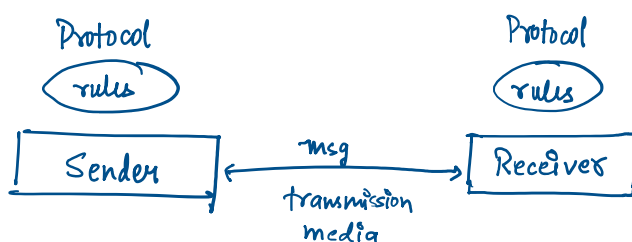- Monitoring of Management

☆ How the Network is Setup?

Components - Switch, Routers, Cables, NICs, Connectors, Modem, Server-Client machines

☆ Who does the Network Setup?

- Network Administrators
- Network Engineers
- IT support technicians
- Wireless network specialists

☆ Basic components of Computer Network

Protocol   Protocol
(rules)   (rules)
┌─────────┐   msg   ┌──────────┐
│ Sender │←————————→│ Receiver │
└─────────┘ transmission └──────────┘
              media

☆ Features of Computer Network

✦ Features of Computer Network

1. Performance — how quickly it responds, time taken for send/receive
2. Reliability - quick recovery in case of failures
3. Scalability — easy addition of new devices
4. Data Sharing
5. Backup — central server for backup & recovery
6. Security — secure from unauthorized access, no data lose during transmissions.
7. Hardware & Software Compatibility

✦ Essential Hardware Components

1. Server
2. Client
3. Transmission Media
4. Network Interface Card (NIC)
5. Hub
6. Switch
7. Router
8. LAN Cable