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- * TCP/IP Model
 - stands before transmission control protocol or internet protocol.
 - This is the first model which was developed in the market i.e. in 1970s.
 - In this model basis just a proposal and in development stage, OSI model was failure.
 - There were major problems like protocols are not set properly and certain requirements at that time, they have seen that the data link layer functionalities were not required. Because physical layer is doing all the task like, data sending, repeaters, sending data bit by bit, the data speed.
 - After all of this, data link layer is only doing error correction. But we do have one more layer for the same task and that is transport layer.
 - same, presentation layer and session layer are not required as they are not doing any extra task. That all tasks are done by application layer. Application layer is doing authentication, authorization, network virtual terminal and many others.
 - TCP + IP was the first model in the market. They have combined presentation layer, session layer into application layer.
 - After that, transport layer will remain same. Then network layer is also remain same. It is identified as network layer or internet layer. It is internet layer because the internet functionalities (IP) is in this layer.

- then last 2 layers are again merged and that is physical layer or host to network layer.
- Now there are 4 layers in TCP/IP.
- OSI model is used in telecommunication but where we are having the internet access, there we need to use TCP/IP.
- Internet layer has 4 more protocols.
 - (1) ARP - Address Resolution Protocol
 - (2) RARP - Reverse Address Resolution Protocol
 - (3) ICMP - Internet Control Message Protocol
 - (4) IGMP - Internet Group Message Protocol

- these are the new things that are added to the Internet layer.
- Transport layer containing the protocols -
 - TCP, UDP, SCTP
 - transmission control protocol
 - used for the wired medium.
 - User Datagram protocol
 - used for the wireless medium.
 - Stream control transfer protocol
 - used for combination of good features of TCP and UDP.
- Application layer containing various protocols
 - HTTP - Hyper Text Transfer protocol
 - used for opening the website
 - FTP - File Transfer Protocol
 - used for sharing the file
 - SMTP - Simple Mail Transfer Protocol
 - used for sending the mail

- Telnet - used for the remote login.

- SNMP - simple Network Management Protocol

Protocol used to manage the networks.

- DNS - Domain Name System

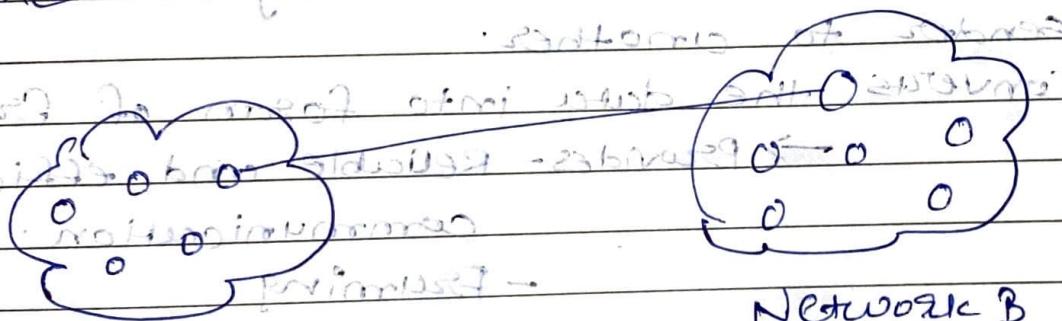
The English name of the website computer doesn't understand. Computer

knows the IP address only.

When we type google.com, the DNS converts the google to the IP and sends the request to the google server, then reply comes back in the form of IP and again it is converted back to the English form. This is the working of DNS.

* Unicast - Single server finds single receiver.

One to one transmission.



Network A Network B
source IP: 10.0.0.1 dest IP: 20.0.0.2

* Broadcast - one to all.

* Multicast - one to many.

Internet Group

format 224.0.0.1