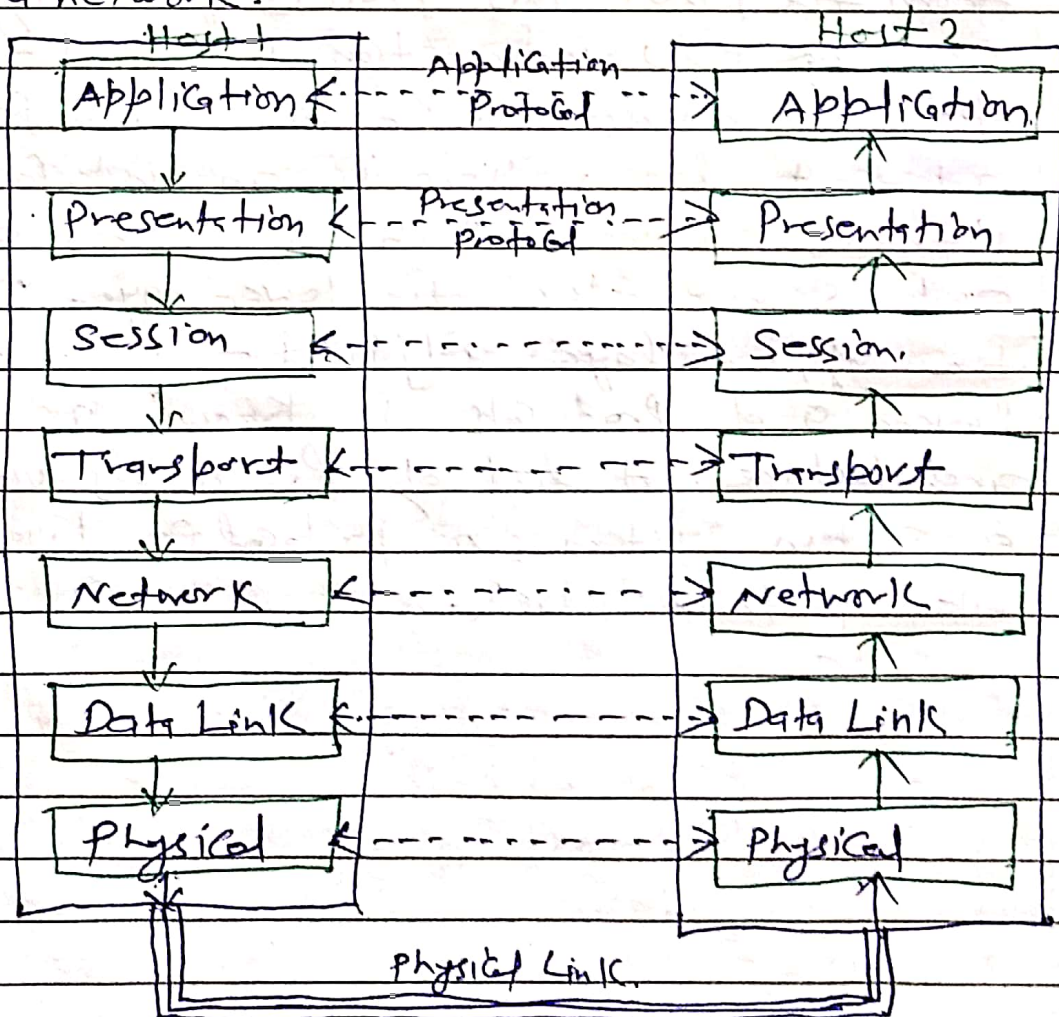


## OSI Reference Model

OSI model is a set of protocols that allows any two system to communication regardless of Architecture. The Purpose of OSI model is to show how to Communicate b/n different without requiring changes to the hardware and software. It is model for understanding and designing framework for the design of network system that allow to communicate b/n all types of computer systems. It consists of seven related layers, each of which defines part of the process of moving information across a network.



OSI Reference model

study time

Subject \_\_\_\_\_

Date: 19/09/20

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The open Systems Interconnection model has Seven layers:

Application 7

Presentation 6

Session 5

Transport 4

Network 3

Data link 2

Physical 1

Seven layers of the OSI model

Physical layer: \* Physical layer is used to transmit bit over a medium to provide mechanical and electrical specification.

\* It provide the transfer medium such as cable

\* Used to define the voltage and data rates need to complete the process of transmission

\* This layer is used to convert digital bits into required electrical signals.



Data Link Layer: \* The main function of data link layer is synchronization and error control for the information which are required to transmit over the physical layer.

\* It is used to organize bits into frames in order to provide hop to hop delivery.

\* Construct data frames using appropriate format as per accordance of given network.

\* Examine device address and acknowledge receipt of the frame.

Network Layer: \* To move the packet of data from source to destination in order to provide inter networking.

\* Route the signals through various channels to the other end for the resequencing of packet transmission when needed.

\* Determine the network path on which to route the given packet.

Transport Layer: \* The work of transport layer is to ensure that data is sent and received in the same order.

\* Ensure reliability of packet transmission from node to node.

\* It monitors the packet transmission errors and resends the damaged form of packets.

Session Layer: \* Session layer initiates the communication links for the transmission.

\* It controls logging on and off, user identification, billing and along with this the session management.

\* Determine which node transmits any point at that time.

Presentation layer: \* Presentation layer performs the function of data encryption.

\* Perform the function of data compression.

\* Transmission data to a format the receiving node understand.

Application layer: \* Application layer allows access to network resource present.

\* Enable sharing of remote drives and printers.

\* provide files transfer services and file management services.