

ASSIGNMENT - 2

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1- Discuss the Iso OSI model in detail

The OSI model created by the international organization for standardization (Iso) in 1984, is a conceptual framework that describes how data travels across a network between two communicating devices.

It does not define specific protocols but serves as a reference model for understanding network communication

OSI Model is broken down into seven layers

1- Physical layer

Lowest layer and responsible for physical transmission of data bits across a network medium

e.g :-
Cables
Connectors
Network cards

2- Data link layer

Packages the raw data from physical layer into frames.

e.g :- Wifi

3- Network layer

Routes data packets across different network to reach the destination device.

e.g IP protocol
Routing protocol

4- Transport layer

Provides reliable data transfer services between application on different devices.

Two main protocols

- TCP

- UDP

5- Session layer

manages and terminates between applications on different devices

e.g :- SIP
(Session initiation protocol)

6- Presentation layer

- Deals with data formatting and encryption / decryption

e.g ASCII
EBCDIC

7- Application layer

- Highest layer
- closest to the user.

ex :- Web browsing (HTTP)
email (SMTP)
File transfer (FTP)

Benefits of OSI Model

- Standardized approach to understanding network communication
- Helps in troubleshooting network issues by isolating problem with specific layer