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**ICE Task 1**

Layers of OSI and TCP/IP model

**OSI model** consists of seven layers. They are:

1. Application: This is the top layer in which the applications using the network is supported by the protocols provided by the application layer. End-user software i.e. email clients and web browsers use this layer.
2. Presentation: A number of functions are performed by the presentation layer which is imperative for the receiver or sender to present the data package properly. Data is prepared in this layer for the application layer.

1. Session: Sessions between devices are created. It’s in charge of launching sessions, making sure they stay open while data gets transferred, and closing them once the communication is over.
2. Transport: The data transferred in the session layer gets broken into portions. The transport layer rebuilds the pieces on the receiving end and turns them back into data. This layer ensures a free flow of errorless data.
3. Network: Data is transferred into and via other networks. Network addresses such as IP addresses are used to route packets to a destination node.
4. Data Link: Raw data gets transformed into frames. It ensures that the sending and receiving devices are not overloaded by the rate of the flow of data.
5. Physical: This is the physical and electrical representation of the system. Raw data is transferred from the sending device to the receiving device.

**TCP/IP** model consists of 5 layers. They are:

1. Application: Examples of network applications such as browsers and email clients are placed in this layer. The transport layer is used by the application layer to connect to remote computers.
2. Transport: An end-to-end connection that has no errors is maintained by this layer.
3. Network: Similar to the network layer of the OSI model. Data gets transferred between networks by using the IP address.
4. Network Access/ Data link: Frames get delivered within the same network. This layer also checks for any errors and controls the flow of data.
5. Physical: Transmission of data into signals which are sent over a network.

Similarities between OSI model and TCP/IP model

1. Both create levels for the network communication process
2. They are both logical models
3. For networking. Both specify the standards.
4. Both offer a framework for developing and putting into use network standards and tools