Group 3(Concept of layers, protocols and the OSI model)

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**Concept of Network Layers**

This is the way that data is organized and transmitted in a computer network. Each layer has a specific function and data is passes from one layer to the other as it is being transmitted.

Also ensures that the data is transferred correctly. There are Seven main layers in a network and they are usually referred to as the OSI model. OSI means Open systems Interconnection.

* Physical Layer
* Data Link layer
* Network layer
* Transport layer
* Session layer
* And the Presentation layer

Each layer has its own function and all work together to ensure that data is transmitted correctly.

**The physical layer**

This layer is the bottom layer and responsible for actually sending the data over the link.

**Data Link layer**

This layer handles the things like addressing and framing.

**Network Layer:** Involves with routing and switching to the right destination.

**Transport layer**

This handles things like the flow control and error connection.

**Session layer**

The session layer is responsible for establishing and maintaining connections between devices.

**Presentation layer:** This layer takes care of the things like formatting and encryption.

**And lastly, the application layer:**

This last layer is the top layer and it is where the actual applications like web browsers, email events and messaging apps are categorized.

**Now let us talk about the Network Protocol**

These are the rules that govern how devices on a network communicate with each other. They define things like how the data is formatted, how it is transmitted and how errors are handled.

There are many different protocols but some of the common ones include;

* TCP/IP
* HTTP
* And DNS

**Let us start with the TCP/IP**

This stands for “Transmission Control Protocol/Internet Protocol and it is used to route and transmit data on the internet.

**And now HTTP:** This stands for “Hypertext Transfer Protocol” and it is used for web browsing.

**Lastly, DNS:** This is the “Domain Name System” and it is used to connect domain names into IP address.