**The OSI Model**

**Open System Intercommunication Model**

Commonly used to understand the flow of communications between 2 devices

* Also used for troubleshooting

Graphical user interface, application, Word

Description automatically generated

**The Application Layer**

* Closest to end user
* This layer interacts with the software applications themselves
* Handles high level APIs
* Resource sharing

**The Presentation Layer**

* Where the protocol starts to take over
  + Encoding/Decoding
  + Data De/compression
  + Encryption/Decryption

**The Session Layer**

* Manages sessions TCP/IP, TLS, SSL
* Makes sure all of the sessions are active that need to be and stop all non-active sessions

**The Transport Layer**

* Handles actual transfer of data
* Segmentation of packets
* Acknowledgements of data reception

**The Network Layer**

* Manages IP addrs, Routing, IP headers, Packets

**The Data Link Layer**

* Handles data frames
  + The frame is a result of the final layer of encapsulation before the data gets sent to the physical layer
  + A data frame knows the network medium that its about to go through and is specific to it
    - Ethernet frames can only run through an ethernet cable and not Wi-Fi
* Correct any errors during transfer between 2 nodes
* Defines the protocol used to transfer the data

**The Physical Layer**

* The signals themselves
* Sends the raw data as signals across the network medim
  + Cable, wireless, radio etc.