Comparing TCP and UDP

Reliability and Connection Establishment

Feature	TCP or UDP	Reasons
Reliability and Connection Establishment	**TCP**	TCP is connection-oriented and uses a three-way handshake (SYN, SYN-ACK, ACK) to establish a connection before data transfer.
Data Integrity and Ordering	**TCP**	TCP ensures all packets are received in the correct order using sequence numbers and retransmits any lost packets.

Use Cases and Performance

Feature	TCP	UDP
Use cases	Web browsing (HTTP/HTTPS), Email, and File transfers where data accuracy is critical.	Video streaming, Online gaming, and VoIP where speed is more important than 100% accuracy.
Performance	**Slower** due to the overhead of connection establishment, error checking, and packet sequencing.	**Faster** and more efficient because it has a simpler header and no connection setup or retransmission.