



Feature	TCP or UDP	Reasons
Reliability and Connection Establishment	TCP	TCP is connection-oriented, meaning it establishes a connection between two devices before transmitting data. This ensures that data is delivered reliably and in the correct order. TCP also includes mechanisms for error detection and correction, ensuring that data is not corrupted during transmission.
Data Integrity and Ordering	TCP	TCP ensures data integrity by using checksums to detect errors. If an error is detected, the data is retransmitted. TCP also ensures that data is delivered in the correct order by assigning sequence numbers to each packet.

Task 2: Identify the use Cases and Performance of TCP and UDP.

Feature	TCP	UDP
Use cases	- Web browsing (HTTP/HTTPS) - Email (SMTP, IMAP) - File transfer (FTP) - Remote login (SSH)	- Video streaming (RTP) - Online gaming - DNS (Domain Name System) - VoIP (Voice over IP)
Performance	- Reliable delivery - Ordered delivery - Error detection and correction - Congestion control - Slower than UDP	- Unreliable delivery - Unordered delivery - No error detection or correction - No congestion control - Faster than TCP