**Part 4: Comparing TCP and UDP by filling in the following tables. Save your work**

**Task 1: Fill in the following table and provide reasons.**

|  |  |  |
| --- | --- | --- |
|  | TCP or UDP | Reasons |
| Reliability and Connection Establishment | **TCP** | **TCP**: Reliable, ensures data is delivered in order, and has a connection setup (3-way handshake). |
| Data Integrity and Ordering | **TCP** | **TCP**: Guarantees data is received correctly and in the right order. **UDP**: No guarantees, packets may be lost or out of order. |

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

|  |  |  |
| --- | --- | --- |
|  | TCP | UDP |
| Use cases | - Web browsing (HTTP, HTTPS)  - File transfers (FTP)  - Email (SMTP, IMAP) | - Streaming (audio/video)  - VoIP (Voice over IP)  - Online gaming |
| Performance | Reliable but slower due to extra checks. | Faster, but can lose packets or have delays. |