Protocol document

Code:

<https://github.com/SapnuPuas1018/GarticPhone/blob/master/.venv/protocol.py>

explanation:

This protocol ensures reliable message transmission over a socket connection by prefixing each message with its length followed by an exclamation mark (!). When sending, the message is first trimmed of excess whitespace and its length is calculated. This length is then added as a prefix, forming a message like "11!Hello world" for a message "Hello world". This formatted message is then sent over the socket. On the receiving end, the protocol reads bytes until it encounters the exclamation mark, extracts and converts the preceding string to an integer to determine the message length, and then reads the specified number of bytes to retrieve the complete message. This method guarantees that the receiver knows exactly how much data to expect, ensuring accurate and complete message reconstruction.