

Sliding Window Protocol

Explanation

Sender side:

Client acts as sender. So client first connects with the server. Sender code gets the window size from user and transmits it to the receiver. Sender code gets the message to be sent from the user. At every iteration (an iteration per window size number of character of the string), the sender sends a variable called stringend to notify to the receiver whether or not the string has ended. Window size number of characters are sent. Acknowledgement is received one by one. If any ack is 0 then it stops receiving further acknowledgements and starting from this character the next frame is sent. This happens until string end is reached.

Receiver side:

Server acts as receiver. So it accepts client's connection request. At every iteration it checks if the string has ended using the stringend variable sent by sender. If string has not ended, the window size number of characters are received and for every character acknowledgement is sent (1 for success and 0 for failure). The characters with ack 1 are stored in a character array and printed at last.

Stop and Wait Protocol

Explanation

Sender side:

Client acts as sender. So client first connects with the server. Sender code gets the message to be sent from the user. At every iteration (an iteration per character of the string), the sender sends a variable called stringend to notify to the receiver whether or not the string has ended. A character is sent and acknowledgement is received. If ack is 0 the character is sent again. This happens until string end is reached.

Receiver side:

Server acts as receiver. So it accepts client's connection request. At every iteration it checks if the string has ended using the stringend variable sent by sender. If string has not ended the character is received and an acknowledgement is sent (1 for success and 0 for failure). The received characters are stored in a character array and printed at last.

Other code explanations are provided along with code comments.