

CSE 123 - Discussion Section

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Discussion Sections Structure

- Questions posted on Piazza.
 - Projects, HWs, Lecture content.
- Topics of interest are welcome! Post them on Piazza.
- Project Overview.

Project 1 - Sliding Window

- Packet based data transmission.
- Packets can get
 - dropped
 - delayed
 - corrupted!
- Sequence number and acknowledgement.
- Limiting the number of “in-flight” frames.
- Sender window and Receiver window.

Sliding Window Protocol - Concepts

- Framing
 - Converting large inputs into small-sized frames
- Flow control
 - Sender and receiver buffers
 - Frame ordering
- Reliable communication
 - Detecting missing or corrupted frames
 - Acknowledgements and retransmission

Coding Instructions

- Language used: C/C++
- Must compile and execute on **lab machines**
- Compiling on Mac OS might give issues related to libnsl

Skeleton code - common.h

Useful constants and structures

Skeleton code - util.h, util.c

Linked list and time operations

Skeleton code - sender.c, sender.h

- Implements sender thread
- Perform 4 major steps
 - Receive and process commands from input
 - Transmit/buffer messages
 - Process incoming acknowledgements
 - Retransmit timed out frames
 - Rinse and repeat

Skeleton code - receiver.c,receiver.h

- Implements receiver thread
- 1 major responsibility
 - Receive and “acknowledge” incoming messages from senders

Submission Instructions

- Prepare a design document explaining
 - Important data structures
 - Frame structure
 - Algorithms used
 - Anything you want to highlight to the graders!
- make submit

Thank you!