**Sliding window**

#include <stdio.h>#include <stdlib.h>#include <unistd.h>#include <stdbool.h>#define TOTAL\_FRAMES 10#define WINDOW\_SIZE 4int main() {    int frames[TOTAL\_FRAMES];    int ack[TOTAL\_FRAMES];    int send = 0;    int next\_frame = 0;    int ack\_count = 0;    int i;    for (i = 0; i < TOTAL\_FRAMES; i++) {        frames[i] = i;        ack[i] = 0;    }    printf("Starting Sliding Window Protocol...\n");    while (ack\_count < TOTAL\_FRAMES) {        while (next\_frame < TOTAL\_FRAMES && next\_frame < send + WINDOW\_SIZE) {            printf("Sending frame %d\n", frames[next\_frame]);            next\_frame++;        }        for (i = send; i < next\_frame; i++) {            if (ack[i] == 0) {                printf("Acknowledgment received for frame %d\n", frames[i]);                ack[i] = 1;                ack\_count++;            }        }        while (send < TOTAL\_FRAMES && ack[send] == 1) {            send++;        }        sleep(1);    }    printf("All frames sent and acknowledged.\n");    return 0;}