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```
#include <stdio.h>

#include <stdlib.h>

#include <unistd.h>

#include <time.h>

#define TOTAL_PACKETS 5

void send_packet(int packet_number) {

    printf("Sending packet %d ... \n", packet_number);

    sleep(1);

}

int receive_ack(int packet_number)

{

    printf("Receiving ACK for packet %d \n", packet_number);

    sleep(1);

    if (rand() % 10 < 1) {

        printf("ACK for packet %d lost! \n", packet_number);

        return 0;

    }

    printf("ACK for packet %d received! \n", packet_number);

    return 1;

}

int main()

{

    srand(time(NULL));
```

```

    for (int i = 1; i <= TOTAL_PACKETS; i++)
    {
        int ack_received = 0;

        while (!ack_received) {

            send_packet(i);

            ack_received = receive_ack(i);

        }

    }

    printf("All packets sent and acknowledged.\n");

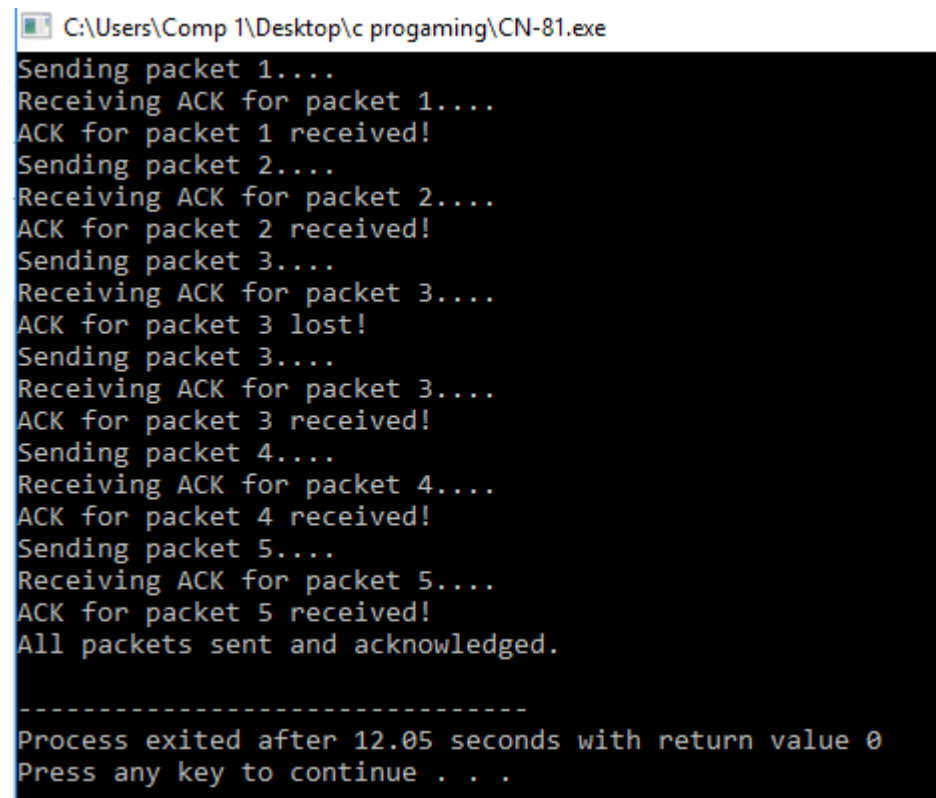
    return 0;

}

```

OUTPUT

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```

C:\Users\Comp 1\Desktop\c progaming\CN-81.exe
Sending packet 1....
Receiving ACK for packet 1....
ACK for packet 1 received!
Sending packet 2....
Receiving ACK for packet 2....
ACK for packet 2 received!
Sending packet 3....
Receiving ACK for packet 3....
ACK for packet 3 lost!
Sending packet 3....
Receiving ACK for packet 3....
ACK for packet 3 received!
Sending packet 4....
Receiving ACK for packet 4....
ACK for packet 4 received!
Sending packet 5....
Receiving ACK for packet 5....
ACK for packet 5 received!
All packets sent and acknowledged.

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Process exited after 12.05 seconds with return value 0
Press any key to continue . . .

```