**CNSL Lab Assignment 4**

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**Problem Statement**: Write a program to simulate Go back N and Selective Repeat Modes of Sliding Window Protocol in Peer-to-Peer mode

**Code:**

**#include <iostream>**

**#include <ctime>**

**#define ll long int**

**using namespace std;**

**void transmission(ll &i, ll &N, ll &tf, ll &tt){**

**while (i <= tf) {**

**int z = 0;**

**for (int k = i; k < i + N && k <= tf; k++) {**

**cout << "Sending Frame " << k << "..." << endl;**

**tt++;**

**}**

**for (int k = i; k < i + N && k <= tf; k++) {**

**int f = rand() % 2;**

**if (!f) {**

**cout << "Acknowledgment for Frame " << k << "..." << endl;**

**z++;**

**} else {**

**cout << "Timeout! Frame Number " << k << " Not Received." << endl;**

**cout << "Retransmitting Window..." << endl;**

**break;**

**}**

**}**

**cout << "\n";**

**i = i + z;**

**}**

**}**

**int main()**

**{**

**ll tf, N, tt = 0;**

**srand(time(NULL));**

**cout << "Enter number of frames: ";**

**cin >> tf;**

**cout << "Enter window size: ";**

**cin >> N;**

**ll i = 1;**

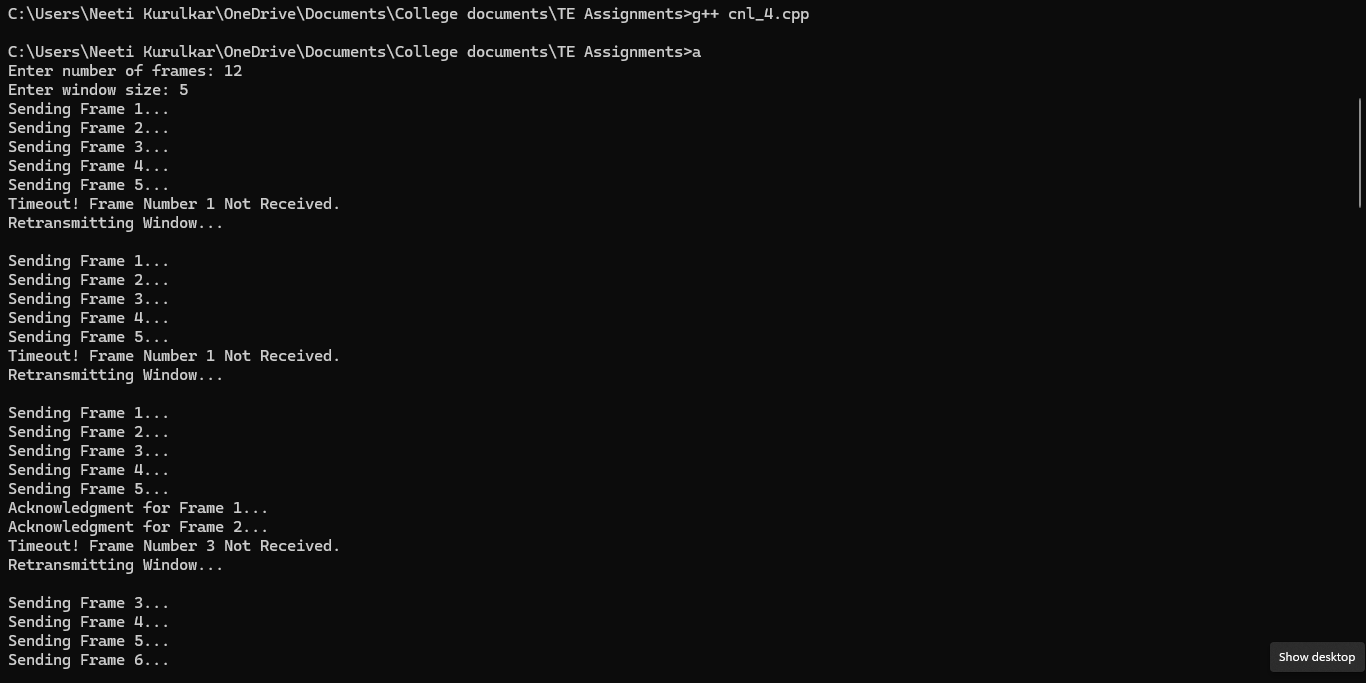
**transmission(i, N, tf, tt);**

**cout << "Total number of frames sent and resent : " << tt << endl;**

**return 0;**

**}**

**Output:**

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