Experiment 7:

* Aim : Implementation Of Go Back N Protocol In c
* Apparatus (Software):
* Turbo C++

**Algorithm: Sliding Window Protocol**

1. **Start**
2. **Input**:
   * Prompt the user to input the window size, windowsize.
   * Initialize sent to 0 (represents the number of frames sent).
3. **Repeat until all frames are acknowledged**:
   * For each frame within the current window size (i = 0 to windowsize - 1):
     + Transmit the frame number (sent).
     + Increment the sent counter by 1.
     + If all frames within the window have been sent (sent == windowsize), break the loop.
   * **Prompt** the user to provide the last received Acknowledgement (ack).
   * **Check**:
     + If ack == windowsize, terminate the process as all frames have been successfully transmitted and acknowledged.
     + Else, reset the sent value to the value of ack (to retransmit the frames starting from the last acknowledged frame).
4. **End**

This algorithm simulates the transmission of frames and the sliding window concept in network protocols. The sender transmits a group of frames up to the window size, then waits for acknowledgment before continuing.

Code:

#include<stdio.h>

int main()

{

int windowsize,sent=0,ack,i;

printf("Enter the window size:\n");

scanf("%d",&windowsize);

while(1)

{

for( i = 0; i < windowsize; i++)

{

printf("Transmitting Frame %d...\n",sent);

sent++;

if(sent == windowsize)

break;

}

printf("\nPlease provide the last Acknowledgement received:\n");

scanf("%d",&ack);

if(ack == windowsize)

break;

else

sent = ack;

}

return 0;

}

Output:

