

Experiment -7

AIM: Write a program to implement flow control at data link layer using Sliding window protocol. Simulate the flow of frames from one node to another.

Program should achieve at least below given requirements. You can make it a bidirectional program wherein receiver is sending its data frames with acknowledgement (Piggybacking).

Code:



JS

GO

php



main.cpp



Share

Run

```
1  #include<stdio.h>
2
3  int main()
4  {
5      int w,i,f,frames[50];
6
7      printf("Enter window size: ");
8      scanf("%d",&w);
9
10     printf("\nEnter number of frames to transmit: ");
11     scanf("%d",&f);
12
13     printf("\nEnter %d frames: ",f);
14
15     for(i=1;i<=f;i++)
16     {
17         scanf("%d",&frames[i]);
18
19         printf("\nWith sliding window protocol the frames will be sent in the following manner
20             (assuming no corruption of frames)\n\n");
21         printf("After sending %d frames at each stage sender waits for acknowledgement sent by
22             the receiver\n\n",w);
23
24         for(i=1;i<=f;i++)
25         {
26             if(i%w==0)
27             {
28                 printf("%d\n",frames[i]);
29                 printf("Acknowledgement of above frames sent is received by sender\n\n");
30             }
31             else
32             {
33                 printf("%d ",frames[i]);
34
35                 if(f%w!=0)
36                 {
37                     printf("\nAcknowledgement of above frames sent is received by sender\n");
38                 }
39             }
40         }
41
42         return 0;
43     }
```

Output:

```
Output Clear
/tmp/1MDyyIXWSy.o
Enter window size: 5

Enter number of frames to transmit: 3

Enter 3 frames: 1
2
3

With sliding window protocol the frames will be sent in the following manner (assuming no
corruption of frames)

After sending 5 frames at each stage sender waits for acknowledgement sent by the receiver

1 2 3
Acknowledgement of above frames sent is received by sender

=== Code Execution Successful ===
```

Result:

Write a program to implement flow control at data link layer using Sliding window protocol has been executed successfully