

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.

SOURCE CODE:

```
#include<stdio.h>

int main()
{
    int w,i,f,frames[50];

    printf("Enter window size: ");
    scanf("%d",&w);

    printf("\nEnter number of frames to transmit: ");
    scanf("%d",&f);

    printf("\nEnter %d frames: ",f);

    for(i=1;i<=f;i++)
        scanf("%d",&frames[i]);

    printf("\nWith sliding window protocol the frames will be sent in the following manner\n(assuming no corruption of frames)\n\n");

    printf("After sending %d frames at each stage sender waits for acknowledgement sent by\nthe receiver\n\n",w);

    for(i=1;i<=f;i++)
    {
        if(i%w==0)
```

```

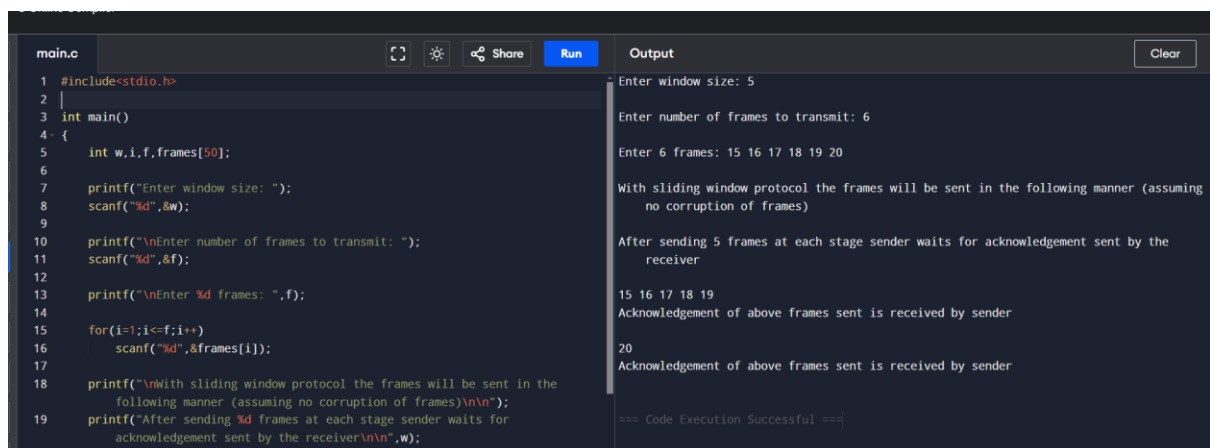
    {
        printf("%d\n",frames[i]);
        printf("Acknowledgement of above frames sent is received by sender\n\n");
    }
    else
        printf("%d ",frames[i]);
}

if(f%w!=0)
    printf("\nAcknowledgement of above frames sent is received by sender\n");

return 0;

```

OUTPUT:



The screenshot shows a C code editor with the following code in `main.c`:

```

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        scanf("%d",&frames[i]);
17
18    printf("\nWith sliding window protocol the frames will be sent in the
19    following manner (assuming no corruption of frames)\n\n");
20    printf("After sending %d frames at each stage sender waits for
21    acknowledgement sent by the receiver\n\n",w);

```

The output window displays the following text:

```

Enter window size: 5
Enter number of frames to transmit: 6
Enter 6 frames: 15 16 17 18 19 20

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

15 16 17 18 19
Acknowledgement of above frames sent is received by sender

20
Acknowledgement of above frames sent is received by sender

=== Code Execution Successful ===

```

RESULT:

The code for SLIDING WINDOW have been executed successfully and the output is verified.