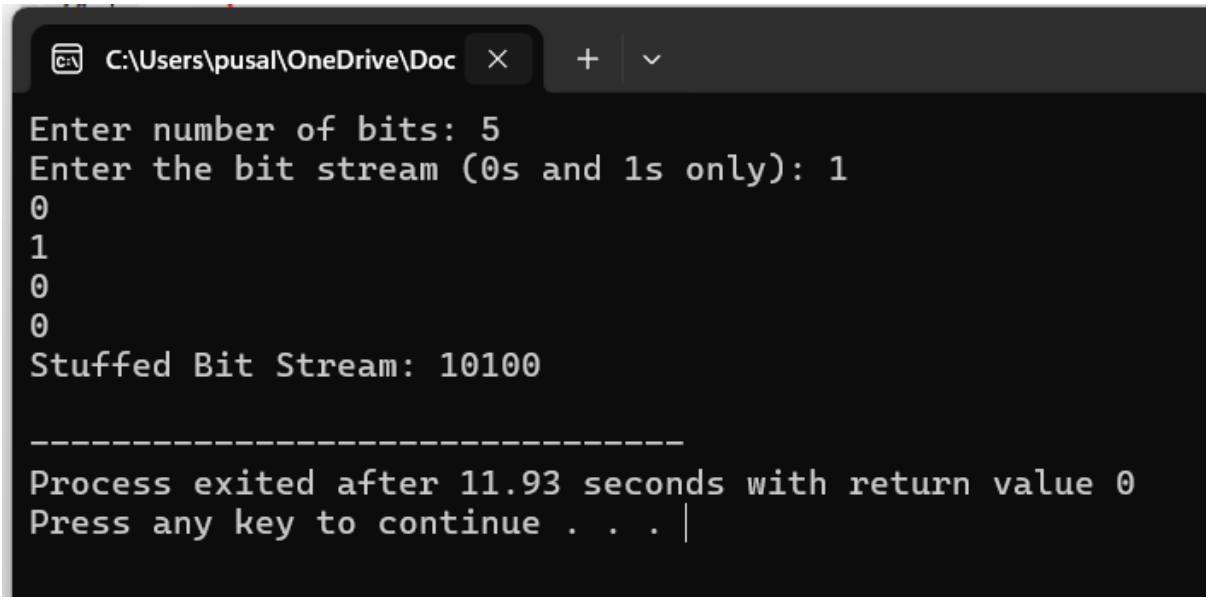
32. Implementation of Bit stuffing mechanism using C.

```
#include <stdio.h>
#include <string.h>

#define MAX 100

// Function for bit stuffing
void bitStuffing(int input[], int n) {
   int stuffed[MAX], i, j = 0, count = 0;

   printf("Stuffed Bit Stream: ");

   for (i = 0; i < n; i++) {
      stuffed[j++] = input[i];

      if (input[i] == 1) {
         count++;
         if (count == 5) {
            stuffed[j++] = 0;  // Insert 0 after five consecutive 1s
            count = 0;
         }
      } else {
         count = 0;
      }
   }

   // Print stuffed bit sequence
   for (i = 0; i < j; i++)
      printf("%d", stuffed[i]);

   printf("\n");
}

int main() {
   int input[MAX], n, i;

   printf("Enter number of bits: ");
   scanf("%d", &n);

   printf("Enter the bit stream (0s and 1s only): ");
   for (i = 0; i < n; i++)
      scanf("%d", &input[i]);

   bitStuffing(input, n);

   return 0;
}
```


C:\Users\pusal\OneDrive\Doc
Enter number of bits: 5
Enter the bit stream (0s and 1s only): 1
0
1
0
0
Stuffed Bit Stream: 10100

Process exited after 11.93 seconds with return value 0
Press any key to continue . . .