C program for Bit stuffing and destuffing

Program:

```c
#include<stdio.h>

#include<stdlib.h>

 #define MAXSIZE 100

int main() {

 char *p,*q;

 char temp;

char in[MAXSIZE];

char stuff[MAXSIZE];

char destuff[MAXSIZE];

int count=0;

printf("enter the input character string (0's & 1's only):\n");

scanf("%s",in);

p=in;  q=stuff;

while(*p!='\0')  {

        if(*p=='0')    {

        *q=*p;    q++;     p++;

        }

        else    {

         while(*p=='1' && count!=5)     {

         count++;

         *q=*p;

         q++;

         p++;

          }
```

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    if(count==5)
    {
            *q='0';

            q++;

    }

    count=0;

    }

}
*q='\0';
printf("\nthe stuffed character string is");
printf("\n%s",stuff);
p=stuff;   q=destuff;
while(*p!='\0')  {
        if(*p=='0')    {
        *q=*p;     q++;     p++;

         }
         else
        {
        while(*p=='1' && count!=5)     {

         count++;

          *q=*p;

         q++;       p++;

         }
        if(count==5)     {

                p++;

        }

        count=0;
```

```c
        }
    }
*q='\0';
 printf("\nthe destuffed character string is");
printf("\n%s\n",destuff);
 return 0;
 }
```

Output:

enter the input character string (0's & 1's only):

1 0 1 0 1 1 1 1 1 1

 the stuffed character string is

1 0 1 0 1 1 1 1 1 0 1

the destuffed character string is

1 0 1 0 1 1 1 1 1