# C program for Bit stuffing and destuffing

Program:

#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++;

  }

  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;

}

}

\*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 1