1. **Byte Stuffing :**

#include <stdio.h>

#include <string.h>

int main() {

char frame[50][50], str[50][50];

char flag[10];

strcpy(flag, "flag");

char esc[10];

strcpy(esc, "esc");

int i, k = 0, n;

strcpy(frame[k++], flag);

printf("Enter length of String : \n");

scanf("%d", &n);

printf("Enter the String: ");

getchar(); // to clear the buffer

for (i = 0; i < n; i++) {

fgets(str[i], sizeof(str[i]), stdin);

str[i][strcspn(str[i], "\n")] = '\0'; // remove newline character

}

printf("\nYou entered :\n");

for (i = 0; i < n; i++) {

puts(str[i]);

}

printf("\n");

for (i = 0; i < n; i++) {

if (strcmp(str[i], flag) != 0 && strcmp(str[i], esc) != 0) {

strcpy(frame[k++], str[i]);

} else {

strcpy(frame[k++], esc);

strcpy(frame[k++], str[i]);

}

}

strcpy(frame[k++], flag);

printf("------------------------------\n\n");

printf("Byte stuffing at sender side:\n\n");

printf("------------------------------\n\n");

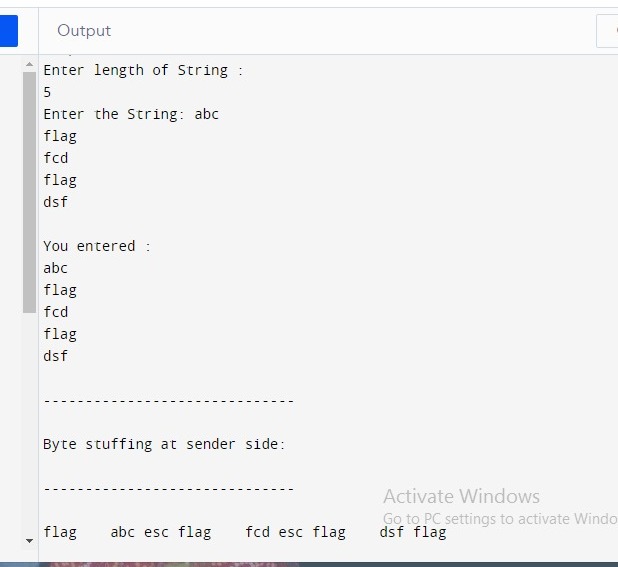
for (i = 0; i < k; i++) {

printf("%s\t", frame[i]);

}

return 0;

}

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